



BUNDLED SOLAR POWER PROJECT BY VECTOR GREEN SUNSHINE PRIVATE LIMITED AND POLEPALLY SOLAR PARKS PRIVATE LIMITED

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Project title	Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited
Project ID	1745
Verification period	01-May-2024 to 28-February-2025 (Both days Included)
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Version	3.0
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Client	Vector Green Sunshine Private Limited

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Summary:

EcoLance Private Limited, appointed by Vector Green Sunshine Private Limited, has conducted the 6th verification of the 1st crediting period for the project activity titled 'Bundled Solar Power Project by Vector Green Sunshine Private Limited and Pole ally Solar Parks Private Limited' (VCS 1745). This verification covers the monitoring period from 01-May-2024, to 28-February2025, and was carried out in accordance with the applicable requirements for Verified Carbon Standard (VCS) activities.

The project is bundled project activity which involves installation of 20 MW solar power project by Vector Green Sunshine Private Limited at Vill- Gammiwala, District- Mansa, Punjab, India and 25 MW Solar power project by Polepally Solar parks Private Limited at Vill- Ippaturu, District-Mahabubnagar, Telangana, India. It harnesses solar energy to generate clean electricity, contributing to the reduction of greenhouse gas emissions. The electricity generated is supplied to the Indian Central Grid. The project is fully commissioned and actively delivering power to the Indian Central Grid.

The objective of the verification is to provide an independent ex-post assessment of the monitored greenhouse gas (GHG) emission reductions. The verification was conducted in accordance with EPL's procedures, aligned with the requirements outlined in the CDM Modalities and Procedures (M&P), the VCS Validation and Verification Manual (Version 3.2), the VCS Standard (Version 4.7), ISO 14064-3:2019, and relevant decisions of the COP/MOP and the CDM Executive Board. Standard auditing techniques were applied throughout the process, which included a desk review of registered joint PD & MR, an remote assessment, resolution of outstanding issues, and issuance of the verification opinion.

The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS requirements in order to be certified.

The greenhouse gas (GHG) emission reductions were calculated based on the approved methodology ACM0002, 'Grid-connected electricity generation from renewable sources' (Version 17.0), and in accordance with the monitoring plan outlined in the registered Joint Project Description and Monitoring Report, Version 2.0, dated 21 March 2018.

During this verification, 01 Clarification Requests (CLs) and 03 Corrective Action Request (CARs) were identified.

These CARs and CLs are successfully closed after necessary corrections/clarifications by the client. The same has been discussed in Appendix 04 of this verification report. VVB found no uncertainties during this verification of the project activity.

In conclusion, it is EPL's opinion that the project activity "Bundled Solar Power Project by Vector Green Sunshine Private Limited and Pole ally Solar Parks Private Limited" VCS ID 1745, meets all relevant requirements for VCS standard and guidelines and correctly applies the baseline and monitoring methodology ACM0002 'Grid-connected electricity generation from renewable sources' version 17. The monitoring system is in place and the emission reductions are calculated without material misstatement. Hence, EPL is able to certify that the emission reductions from the project during the monitoring period 01/05/2024 to 28/02/2025 amount to 58,171 tCO₂e.

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1 INTRODUCTION

1.1 Objective

Vector Green Sunshine Private Limited has appointed EcoLance Private Limited (EPL) to carry out verification of the project “Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited, registered under VCS with project ID.1745 for the reported GHG emission for the given monitoring period of 01/05/2024 to 28/02/2025 (both dates included). This report summarizes the findings of the verification of the project, performed on the basis of VCS requirements & UNFCCC criteria of CDM, as well as criteria to provide for consistent project operations, monitoring and reporting.

The objective of this verification is to provide an independent assessment of the project activity by an accredited validation and verification body, following the requirements of the VCS Program Guide (Version 4.4) /05/, the VCS Standard (Version 4.7) /06/, and the applicable GHG program, based on the registered joint project description document and monitoring report /03/. Through a review of objective evidence, the verification aims to confirm that the project meets all relevant requirements, to establish that:

- The project activity has been implemented and operated in accordance with the registered joint project description and monitoring report (JPD & MR) /03/, with all physical features – including technology, project equipment, and monitoring systems – properly installed and consistent with the applied methodology /08/.
- The Monitoring Report /01/, Emission Reduction Calculation Sheet /02/, and other supporting documents have been completed in accordance with the VCS monitoring report templates, Version 4.4 /07/.
- The data is recorded and stored as per the monitoring methodology /08/ and approved monitoring plan /03/
- To verify that the monitoring system has been properly implemented and is fully operational to generate Verified Carbon Units (VCUs) without any risk of double counting, and to ensure that the reported data are accurate, complete, consistent, transparent, and free from material errors or omissions by reviewing the monitoring records and emission reduction calculations.

To confirm that the project has performed to contribute to the sustainable development goals indicated in the MR /01/

1.2 Scope and Criteria

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- to verify that reported GHG emission data is sufficiently supported by evidence.
- to confirm that the project has performed to contribute to the sustainable development goals indicated in the MR.

The project is assessed based on the VCS program guide version 4.4 /05/, VCS standard version 4.7 /06/, VCS Validation and Verification Manual, version 3.2 /22/, VCS Monitoring Report Template version 4.4 /07/ and VCS Verification Report Template, version 4.4. EPL has employed a rule-based approach (as criteria) in the verification, focusing on the identification of significant reporting rules and the reliability of project monitoring. Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

1.3 Level of Assurance

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion. Various tools have been established in order to ensure an effective verification planning.

Materiality Threshold: The verification assessment for the GHG emission reduction was conducted to provide a reasonable level of assurance of compliance against the defined audit criteria and materiality threshold as defined in the VCS standard /06/ as below:

	Threshold	Related to
☐	1 %	Emission reductions or removals for large projects achieving a total emission reduction or removal of greater than 300,000 tonnes of carbon dioxide equivalent per year
☒	5 %	Emission reductions or removals for projects achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less.

Risk Analysis and verification planning: Before starting the remote assessment, the team leader has assessed the nature, scale and complexity of the verification tasks by carrying out a strategic analysis of all activities relevant to the project activity. The team leader has collected and reviewed the information relevant to the project activities and assessed the team competency to carry out the verification and ensured that it is able to conduct the necessary risk analysis. Based on the documents review and the stage of the project, potential risks that are material for the GHG emission reporting and estimation were identified and potential mitigation measures were identified before the field verification starts. Potential reporting risks and necessary auditing procedures for residual risk areas identified and assessed are tabulated below:

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the potential risk		Assessment of the records/information/interview with personnel to check controls/ mitigation measures
		Risk level	Justification	
1.	Monitoring, recording and reporting of the information in database and ER spreadsheet.	Low	The project has successfully completed previous verifications. The project proponent is familiar with monitoring procedures and data reporting in line with the registered joint PD and MR and previous verification and certification report. Hence, the risk level is Low.	The verification team had interviewed the staff of the monitoring team and checked all records to confirm whether the monitoring plan has been well implemented. The major parameters used for determining the project's baseline emissions are the measurement of electricity export and import from grid according to the monitoring plan is recorded monthly. The team reviewed the whole data set of the monthly records, and crosschecked against relevant sales records. The verification team shall interview the staff of the monitoring team and verify the relevant records to confirm whether the data collection procedure and QA/QC

				procedure have been well implemented.
2.	Information System: Use of spreadsheets without adequate controls related to data changes/ updates, version tracking, traceability, security	Low	The project proponent has already established a well-organized monitoring team, monitoring plan, including data collection procedure and QA/QC procedure consistent with approved monitoring plan. Govt. controlled generation reports are available. Monitoring equipment are calibrated at defined frequency. Hence, the risk level is Low.	The verification team had interviewed the staff of the monitoring team and checked all records and found that the monitoring plan has been well implemented. The team reviewed the whole data set of the monthly records, and crosschecked against relevant sales records. The verification team interviewed the staff of the monitoring team and verified the relevant records and confirm that the data collection procedure and QA/QC procedure have been well implemented.
3.	Accuracy of the measuring equipment	Low	The data of the main monitoring parameters are taken from calibrated meters (energy meters). The monitoring equipment are calibrated according to national standards and rules. Hence, the risk level is Low.	The verification team interviewed the staff of the monitoring team and checked all records to confirm whether the monitoring plan has been well implemented. The major parameters used for determining the project's baseline emissions are the measurement of electricity export and import from grid according to the monitoring plan is recorded monthly. The

				team reviewed the whole data set of the monthly records, and crosschecked against relevant sales records. The verification team interviewed the staff of the monitoring team and verified the relevant records and confirm that the data collection procedure and QA/QC procedure have been well implemented.
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Verification team formation: The appropriate verification team was formed with qualified members qualified in accordance with EPL's qualification procedure for assessing the project for this monitoring period considering the potential risks and potential mitigation measures for those risks. The verification team and the technical reviewer consist of the following personnel.

Role/Qualification	Last Name	First Name
Team Leader, Verifier & Technical Expert	Eswar	Murty
Team Member	Bidyut Pavan	Baishya
Technical Reviewer	Buragohain	Champok

Consideration of materiality in conducting verification: Based on the verification planning, the audit has been carried out. This is performed by conducting remote assessment and obtaining documentary evidences and other information and explanations to achieve reasonable assurance on emission reduction reporting and compliance with the registered joint PD and MR /03/. From the audit findings, it is found that the GHG emission reduction are fairly stated and are in compliance with the standards and guidelines of VCS and applied methodology /05/-/08/.

The assessment was done through relevant document review as given in appendix: 03 of this report and the corrective actions/clarifications as given in appendix 04 of this report. The final verification report before being submitted to the client was subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent EPL's instructions, with a reasonable level of assurance. The technical review was conducted by a reviewer qualified in accordance with EPL's qualification procedure. Following the technical review, the final report was further reviewed by the Quality Manager to ensure it meets a reasonable level of assurance. Therefore, there is no material changes in reporting of ER in the final version (version 2.0, dated 15/05/2025) of the monitoring report /01/ by PP. So, the audit was done appropriately and sufficiently and the result has a reasonable level of assurance confirming that emission reduction reporting is free of material errors, omissions and misrepresentations.

1.4 Summary Description of the Project

The project involves 20 MW solar power project by Vector Green Sunshine Private Limited and 25 MW Solar power project by Polepally Solar parks Private Limited for electricity generation and exported to grid. This project is a bundled project activity located in different states of India i.e. Punjab and Telangana. The plants were commissioned on 24-03-2016 and 27-06-2016, as confirmed by the commissioning certificate issued by Punjab energy development agency and Southern power distribution company of Telangana limited /09/. The locations of the solar power plants were verified using Google Earth /16/, and they match the data provided in the Monitoring Report /01/. This information was also cross-checked with the registered Joint VCS Project Document & Monitoring Report /03/ and the commissioning certificates /09/. The project resulted in emission reductions of 58,171 tonnes of CO₂ equivalent during the period from May 01, 2024, to February 28, 2025, including both dates.

The Solar PV system mainly consist of PV modules, mounting module structures, inverters, regulators, transformers, and monitoring devices, and so on. The solar PV cells convert solar radiation into DC current. The solar panels are installed in arrays. The models in each array are connected in parallel and/or in string in order to get the preferred current and voltage which match with the rated input of the inverter. The inverter connected in each array converts the DC current to AC current.

During the remote audit the main component of the project were checked virtually verifying the nameplate with specifications of the equipment's. The details of commissioning are provided below:

Name of SPV	Capacity Commissioned	Commercial Operation Date /11/	Connection with Grid	Geo-coordinates	State
Vector Green Sunshine Private Limited	20 MW	24-03-2016	Indian Grid	Lat-29° 47'52.47" Long-75° 31'16.63"	Punjab
Polepally Solar Parks Private Limited	25 MW	27-06-2016	Indian Grid	Lat-16° 53'20.0" Long- 78° 04'57.8"	Telangana

Based on these assessments, the audit team confirms that the project is fully operational and has been implemented in accordance with the registered Joint PD & MR /03/ and Monitoring Report /01/.

The generated electricity is exported to integrated Indian Grid. The project qualifies as "Projects" as per the VCS Standard Version: 4.7 /06/. During this current monitoring period with 20 MW and 25 MW capacity the project exported 60,262 MWh of electricity resulting emission reductions of 58,171 tCO₂.

2 VALIDATION FINDINGS

2.1 Method and Criteria

The verification was carried out using EPL's procedures, following the guidelines set out in the VCS Requirements, including the VCS Program Guide (version 4.4) /05/ and the VCS Standard (version 4.7) /06/. The assessment of greenhouse gas (GHG) emission reductions was based on the approved baseline and monitoring methodology ACM0002: "Grid-connected electricity generation from renewable sources" (Version 17.0) /08/, along with the registered Joint Project Document and Monitoring Report /01/.

The method and criteria used for verification:

The verification consists of the following three phases:

1. Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment including calibration requirements, QA/QC procedures

and other relevant documents.

2. Onsite inspections and interviews. The onsite interviews include the following:

- Kick-off meeting for brief project description by the Project Participants & discuss on verification plan
- Interview with PP & relevant stakeholders on assignment of implementation and operation of project activity with respect to validated VCS PD & review of information flows for generating, aggregating, and reporting the monitoring parameters.
- Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with the monitoring plan of the validated VCS PD,
- Cross check of information and data provided in the monitoring report with purchase records or similar data sources.
- Review of assumptions made in calculating the emission reductions (if any).
- Implementation of QA/QC procedure in-line with the VCS PD and methodology requirements.

3. Resolution of outstanding issues and the issuance of the final Verification report and as applicable the VCS Verification Representation.

The following sections outline each step in more detail. The major milestones for the validation are provided below:

- a. Legal contract with PP for the scope of activity: 14/03/2025
- b. Receipt of initial project documents: 11/03/2025
- c. Submission of Notice of Validation/Verification Service (NOVS): 11/03/2025
- d. Audit Plan communication to PP: 05/04/2025
- e. On-site & Remote Assessment: 11/04/2025 and 16/04/2025
- f. Audit finding communication to PP: 22/04/2025
- g. Response Received from PP: 15/05/2025
- h. Draft verification report dated 04/05/2025

2.2 Document Review

During the document review, EPL used standard auditing methods to evaluate the accuracy and reliability of the information provided. The verification was mainly based on the Monitoring Report and the supporting documents numbered from /01/ to /04/.

EPL has primarily conducted the document reviews of the monitoring reports (MR) /01/ and emission reduction calculation sheets /02/ submitted by PP. Also, the registered project documents, corresponding joint validation and verification report /04/ and registered joint PD and MR /03/, have been reviewed. In addition, other supporting documents to cross-check PP's information and statements in the MR are reviewed which are listed in Appendix: 03.

2.3 Interviews

During the verification, the VVB has conducted site visit and remote inspections, document review, and interviews with the project proponent, employees, and stakeholders. This was done to confirm that the information reported for the monitoring period was accurate and followed the procedures outlined in the registered Joint Project Document and Monitoring Report /03/. To verify electricity generation, monthly generation records and invoices/10/ were reviewed as per the registered project documents. Other aspects, such as repair and maintenance activities and any reported grievances, were also checked during the remote assessment and cross-verified with the information provided in the report.

The table below provides details of the remote interview process and identifies the personnel interviewed, along with their roles. It includes individuals who provided additional information beyond what is available in the registered JPD & MR /03/ and Monitoring Report /01/, and other supporting documents. The table also lists the interviews conducted with the project proponent and the team involved in preparing the Monitoring Report and calculating Emission Reductions along with the scope of each interview.

Serial No.	Date	Name and Role	Organization	Scope of Interview
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1	11/04/2025 16/04/2025	Rajeev Kumar Singh Carbon Team- Site visit	SembCorp	Project management, QA/QC for the project, Grievance mechanism, monitoring of project activity, Project implementation, ownership, legal compliance, environmental impacts, ongoing communications, calibration of the measuring equipment's, maintenance and operation etc
2	11/04/2025	K.Eswara Rao	SembCorp	Information flows for generating, aggregating and reporting- ER calculations. Data collection approach, tools and applied methodology use for ER calculation, QA/QC, Social and environmental impacts etc.

3	11/04/2025	K.Manikanta (Mahabubnagar, Telangana)- Site visit	SembCorp	Information flows for generating, aggregating and reporting- ER calculations. Data collection approach, tools and applied methodology use for ER calculation, QA/QC, Social and environmental impacts etc.
4	16/04/2025	Uttam Mallick (Mansa, Punjab)- Remote	SembCorp	Information flows for generating, aggregating and reporting- ER calculations. Data collection approach, tools and applied methodology use for ER calculation, QA/QC, Social and environmental impacts etc

2.4 Site Visits

EPL Audit team during this monitoring period conducted the site visits and remote audit on 11/04/2025 and 16/04/2025.

The remote audit was conducted for the Punjab site since this not the first verification of the project after validation. This is 6th verification of the 1st crediting period. Additionally, VVB carried out a risk assessment detailed in section 1.3 of this report, and determined that risk level is low. According to paragraph 4.1.13 of VCS standard v4.7, a physical site visit is not required for this verification. EPL audit team during remote audit checked whether the specifications and number of the energy meters are in accordance with that described in the registered JPD & MR /03/ and MR /01/.

The method and objectives of the remote audit:

- a. Assessed the implementation and operation of the proposed project activity.

- b. Cross checked the WTGs with respect to commissioning records.
- c. Reviewed the information flows for generating, aggregating and reporting the monitoring parameters.
- d. Interviewed key personnel of the plant to confirm the operational and data collection procedures.
- e. Reviewed calculations and assumptions made in determining the GHG data and emission reductions.
- f. Checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or emissions in the reported monitoring parameters.
- g. Inquired in detail on risk assessments done by the PP for Stakeholder and Environment, Ecosystem Health and Human Rights & Equity.
- h. A check of the monitoring equipment including performance and observations of monitoring practices against the requirements of the registered VCS JPD & MR /03/ and the selected methodology /06/.

2.5 Resolution of Findings

The findings can be raised in any stage of the verification to ensure the transparency of the information given and the result has a reasonable level of assurance confirming that emission reduction reporting is free of material errors, omissions and misrepresentations. The objective of this phase of the verification is to resolve any outstanding issues which need to be clarified for EPL's positive conclusion on the project description. The verification protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The verification protocol consists of tables for Forward Action Request (FAR), Corrective Action Request (CAR) and the Clarification Request (CL); the different columns in these tables are described below:

Forward Action Request (FAR) is raised during verification to highlight issues related to project implementation that require review during the next verification or throughout remaining verifications of the project activity.

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions;
- Issues identified in a FAR during validation or previous verifications to be verified during the current verification have not been resolved by the project participants.

- A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

For this project activity, findings were raised after remote assessment based on the desk review of the projects specially the MR and ER sheet submitted, registered JPD & MR and Joint validation and verification reports and any outstanding issues raised during validation and outcome of the remote assessment. In summary, 01 CLs and 03 CARs were raised during this verification. No FAR was raised from this verification. The findings were sent to PP in a separate sheet. With appropriate response and supporting documents from the PP, these were closed successfully based on verification and cross check. The detail of the findings and their resolution are given under Appendix: 04 of this report.

2.5.1 Forward Action Requests

No FAR was raised from this verification

2.6 Eligibility for Validation Activities

This section is not applicable as EPL is conducting the 6th verification activity. The project activity falls under sectoral scope 01 and the EPL is accredited for validation /verification of project activities under this scope.

3 VALIDATION FINDINGS

3.1 Methodology Deviations

The verification team confirms that the registered project, under the current monitoring period (i.e., sixth monitoring period from 01-May-2024 to 28-February-2025 (including both days), complies with the requirements of the applied monitoring methodology ACM0002.-Version.17.0 /08/. Therefore, no methodological deviations are applied during the monitoring period.

3.2 Project Description Deviations

There is no project deviations identified during the current monitoring period:

However, following project deviations were sought and approved during the previous monitoring periods as described below:

Deviation -1:

There was a change of Billing meter location located at switchyard for VGSPL (20 MW) project in Punjab. This instance was considered as project deviation and described in 3.2.2 of the MR. The assessment team verified the billing meter location during the remote visit and found it to be in line with the information as provided in the MR in this reboards.

Deviation- 2:

The procedure regarding the emergency preparedness in case of failure of meters was updated under the monitoring plan and this instance was considered as project deviation and described in 3.2.2 of the MR.

As per the updated procedure, if the main meter, which is used to record the net electricity exported by the project, is found to be faulty it will be repaired or replaced and the data from the check meter will be used in its place. If the check meter fails it will also be repaired or replaced. In the event of failure of main & check meter at same time, PP can use stand-by meter available at site for billing purpose.

The audit team has verified the final MR, previous verification records and confirmed that the project deviations are appropriately described in section 3.2.2 of the monitoring report. The project deviations considered during the previous monitoring period are applicable and valid for the current monitoring period.

In line with the requirements of clause 3.21.4 of VCS standard v 4.7, the audit team can confirm that the deviations don't have impact on the project applicability, baseline scenario and additionality. The project remains in conformance with the VCS rules and project deviations are valid for the current monitoring period.

3.3 New Project Activity Instances in Grouped Projects

Not applicable. The project activity is not a grouped project

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	The Project Activity is a registered VCS project under VERRA with VCS ID 1745 /23/. The project was validated by LGAI Technological Center, S.A. (Applus+ Certification) for a crediting period of 10 years which can be renewed for maximum 2 times. The crediting period is from 24/03/2016 to 23/03/2026. This is the sixth verification of the first crediting period.
Double counting and participation under other GHG programs	The Project Proponent (PP) has confirmed that the emission reductions for this project are not double counted and have been claimed only under the VERRA program for this monitoring period. The PP also confirmed that the project has not participated in any other greenhouse gas (GHG) programs during this time. The Validation and Verification Body (VVB) verified this and confirms that the PP is not involved in any other GHG mechanism. Additionally, the VVB confirmed that the project is neither registered nor applying for registration under any other GHG program. This was cross-checked on the relevant standards' websites /05/-/08/. So, the VVB is able to confirm that this project activity is registered only in VERRA and is neither participated in other GHG programs nor intended to do so. VVB also confirm that the project is not rejected by any other program.
No double claiming with emissions trading programs or binding emission limits	The PP has confirmed that the emission reductions for this project are not double counted and only claimed under VERRA for this monitoring period. The PP also confirms regarding no participation in any emission trading program or binding limits. So, the project complies with the requirements of the VCS program
No double claiming with other forms of environmental credit	The PP has confirmed that the emission reduction credits that will be issued in this monitoring period will not be claimed as other environmental credits. Furthermore, VVB confirms that the project has not availed ERs for the current monitoring period under any of these programs which was crosschecked by VVB in the respective standards website.

Supply chain (scope 3) emissions double claiming	The project activity is a solar power project and does not involve any supply chain elements such as manufacturers, wholesalers, distributors, or retailers. Therefore, there are no indirect upstream or downstream greenhouse gas (GHG) emissions related to the project. As a result, Scope 3 emissions are not applicable to this project.
Sustainable development contributions	During the monitoring period, the project activity contributed to the sustainable development of the host country by generating clean energy and contributing to energy mix. VVB has confirmed this during the remote audit and the evidences. From the assessment, VVB confirm that the project has contributed to achieve SDG 7, SDG 8 and SDG 13 aligning with Indian Sustainable Development Criteria and Sustainable Development Goals. Project activity is contributing to 3 SDGs under sustainable development goals: SDG 7 (Indicator: 7.2.1) - The project utilizes the solar energy for electricity generation which replaces equivalent electricity otherwise would have generated in fossil fuel dominated grid. During the current monitoring period, the project supplied about 60,262 MWh of renewable electricity to the Central Grid, contributing to an increase in the share of clean energy in India's electricity mix. Since its commissioning, the project has supplied a total of 665,706 MWh. Therefore, the project contributes to SDG 7 (SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption) SDG 8 (Indicator: 8.6.1) - The project has provided employment opportunity to skilled and unskilled personnel and relevant trainings for quality employment. The project activity has created employment opportunities, with over 57 jobs generated since commissioning and 12 trainings were provided during the current monitoring period. VVB verified the employment records and training records during the monitoring period and confirms the project positively contributed to SDG 8 (SDG Indicator 8.6.1:).

	SDG 13: Project activity has reduced GHG emission in this MP by utilizing generating electricity from wind energy. During the current monitoring period, the project generated 60,262 MWh of renewable electricity, helping to avoid the emission of 58,171 tonnes of CO₂e into the atmosphere. Since its commissioning, the project has prevented a total of 642,602 tonnes of CO₂e emissions. VVB confirm the contribution of projects towards achieving SDG 13. VVB has cross checked JMR and invoices, employment records and training records to verify the claimed SDGs contribution and found appropriate
Additional information relevant to the project	Not applicable as PP has not included any commercially sensitive information that are excluded from the report or public disclosure.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion			
Stakeholder identification	Stakeholders associated with the project activity throughout its lifetime are identified at different stages of project development. The stakeholders identified are generally grouped under two categories- directly affected parties, and indirectly affected parties as shown below:			
	Sl. No.	Stage	Stakeholder Group	Effect-Direct/Indirect
	1.	Project conceptualization	- Community representative - Potential end users	

	2.	Project Development	- Government representatives (such as village chief, block development officer, MLAs etc.) - Potential investors. - Local people who can be employed	Indirect
	3.	Project Implementation	- DISCOMs - Stakeholders facing electricity shortages	Direct
				Indirect
	Furthermore, all the stakeholders mentioned above were identified at the project's validation. There has been no change in stakeholder makeup since validation			
Legal or customary tenure/access rights	Not Applicable The project is implemented on private owned land and does not interfere with any legal or customary rights to territories and resources held by project stakeholders. During the remote audit a few stakeholders were interviewed through video conferencing on this, and no issues identified in this regard.			
Stakeholder diversity and changes over time	Not Applicable The project involves stakeholders ranging from government agencies to the community. However, no changes were identified among the stakeholders involved with the project during remote assessment.			
Expected changes in well-being	The project has no significant risks and impacts. The project has contributed the community and the employee for their socio-economic benefits. This has been discussed during the remote assessment by VVB and the claim by PP is found valid			

Location of stakeholders	The stakeholders are within the jurisdiction of Punjab and Telangana states of India. Local people, interested government agencies are located nearby and within the state boundary of Tamil Nadu.
Location of resources	The Land belongs to the project and hence there are no uncertainties regarding land tenure, access rights, usage rights or land ownership which stakeholders own or to which they have customary access.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion				
Ongoing consultation	The PP has always welcome to receive any feedback/continuous inputs via telephone, social media, email or even personally at the project site. A feedback registry is kept at project site to record any feedback received at site. Notice is displayed for any grievance recording and redressal. So, in VVB's opinion, PP has put all the efforts for ongoing stakeholder consultations.				
Date(s) of stakeholder consultation	Project Location (Village)	Project Capacity (MW)	Date of Meeting	Mode of Invitation	Meeting Venue
	Gammiwala	20	20/05/2016	Public notice	Project site
	Ippaturu	25	22/08/2016	Public notice	Project site
Communication of monitored results	The result of the monitoring is always available in the VERRA website transparently /23/. Other than this, stakeholders are always welcome to put their grievances regarding the project as mentioned above through any media. During the remote audit, VVB has cross-checked this and found in line with the PP's reporting. There was no grievance/comment found reported during the monitoring period.				
Consultation records	The LSC records were provided by PP during validation. During this monitoring period neither physical consultation meeting is conducted nor received any grievances, the records related to the consultation				

	are not applicable. During remote assessment, VVB found no such grievances from the stakeholders.
Stakeholder input	Not Applicable As neither physical consultation meeting is conducted nor received any grievances during this monitoring period, the records related to the consultation are not applicable. During remote assessment, VVB found no such grievances from the stakeholders.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	Not applicable As the physical stakeholder consultation was conducted in 2016, the project was shared with the stakeholders and found no feedback claiming on rights and usage of resources. Also, in ongoing stakeholder consultation, the stakeholders at any time can put their grievances. However, there is no any ongoing or unresolved conflicts over property rights, usage, or resources found by VVB during the project remote assessments. So, this part is not applicable for this monitoring period.
Outcome of FPIC discussion	Not Applicable With the stakeholder consultation, the project was already validated. As mentioned above, there is no any ongoing or unresolved conflicts over property rights, usage, or resources found by VVB during the project remote assessments. So, this part is not applicable for this monitoring period.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	Not applicable The PP is available to receive feedbacks/grievances at any time through different means. However, no grievance was found to be received during this monitoring period by VVB as discussed during remote assessment.
Grievance redress procedure	The PP has placed a register at the project office to record any feedbacks/ grievances at any time. In addition, public display to comment/register any feedback at site is available. The company continuously held public meetings with local community as part of different CSR activity and does various development activities. So, in VVB's assessment, the grievance redressing mechanism is there for PP with specific focal points as verified during the remote assessment.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
Not applicable	Not applicable	As mentioned above, during this monitoring period, no public comments/grievances were received through any means. Same is verified during remote assessment by VVB. PP has confirmed that any comments that will be received for issuance will be addressed by PP.

4.2.6 Risks to Local Stakeholders and the Environment

4.2.6.1 Management Experience

The EPL team while performing the remote assessment had interviewed the project proponent regarding the knowledge and efficiency of the O&M team as well as the overall management experience in handling solar power projects. In response to EPL's query, PP has stated that frequent training is being provided to all the staff involve in this project activity. The staff training record has been shared with EPL. EPL has reviewed the staff training record and found it to be satisfactory. Additionally, Vector Green Sunshine Private Limited fully owned by Sembcorp Green Infra Ltd (SGIL) /27/which has years of experience in implementing solar energy projects. Some of the other projects implemented by Sembcorp industries are VCS18565, VCS17766, GS71527, GS74688. No entity has been newly involved in project design or implementation during the current monitoring period. The same has been confirmed by VVB.

4.2.6.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	No risk has been identified. The installed wind turbines have uniform visual characteristics such as design of the turbines, hence its not affecting the aesthetic of the area or landscape. PP has always welcomed to the stakeholders for the comment/grievances. So, during on-site and remote assessment, VVB identified no risks to the stakeholder's participation by the project activity.
Risks to stakeholder participation	No risk has been identified. As described above, PP has always welcomed to the stakeholders for the comment/grievances. Also, the project has not offered any risks to the stakeholder's participation. So, during on-site and remote assessment, VVB identified no risks to the stakeholder's participation by the project activity
Working conditions	No risk has been identified. The Company has a robust Health, Safety, Security & Environment (HSSE) Policy & management system that is applicable to all employees, contractors and relevant stakeholders of the organization. As verified from off-site assessment, employees always wear PPE during O& M
Safety of women and girls	No risk has been identified.

	The project is a solar power project, and its daily operations do not involve direct interaction with the local community. Therefore, there are no safety concerns specifically related to women and girls. PP has implemented Health, Safety, Security, and Environment (HSE) policies /16/. The PP also follows all relevant regulations and safety protocols, including those that protect minority and marginalized groups. VVB reviewed the HSE policy and found it to be effective.
Safety of minority and marginalized groups, including children	According to the ESIA report, there are no marginalized or minority groups present in the local community, and no vulnerable communities were identified. PP has implemented Health, Safety, Security, and Environment (HSE) policies. The PP also follows all applicable regulations and safety protocols designed to protect minority and marginalized groups, even though such groups are not present in the project area. VVB reviewed the ESIA report and found it to be effective.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers)	The project involves electricity generation from wind energy. Hence, no significant pollutants are generated from this project.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	PP has implemented a Code of Conduct Policy /17/ to prevent any form of discrimination. During the onsite inspection, the VVB interviewed workers and confirmed that there have been no reported cases of discrimination.
Sexual harassment	PP has submitted prevention of sexual harassment policy /15/ which is applicable to both permanent and contractual employees. During the onsite inspection, VVB interviewed workers and have found there has been no instances of sexual harassment.

Gender equity in labor and work	PP follows a fair employment practice policy to provide gender equality in labour and work.
Forced labor	PP adheres to the core labor standards applicable to the ADB-financed portion of the project by working only with contractors and service providers who do not use forced labor. During the onsite inspection, the VVB conducted interviews with workers and found no evidence or reports of forced labor practices.
Child labor	PP meets the core labor standards for the ADB-funded portion of the project by hiring contractors and service providers who do not engage in child labor. During the onsite inspection, the VVB interviewed workers and confirmed that there were no cases of child labor observed or reported
Human trafficking	The Project Proponent (PP) collaborates with ethical suppliers in accordance with its Code of Conduct Policy /17/, and no risks related to human trafficking are anticipated for the project activity. During the onsite inspection, the VVB interviewed workers and confirmed that there have been no incidents of human trafficking.

4.2.7.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	During the on-site as well as remote inspection, it was confirmed that no human rights violations have occurred at the project site. The land used for the project is entirely privately owned and was acquired through direct negotiations on a willing buyer-willing seller basis /21/. There are no issues of resettlement, rehabilitation, or involuntary displacement, and no vulnerable or specific community groups are impacted by the project. Additionally, India's national human rights laws apply to this project, and the company has a robust internal policy to uphold these standards. As a result, no human rights-related risks have been identified.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	The project does not impact indigenous people or their cultural heritage, as no indigenous communities such as tribes, ethnic

	minorities, or aboriginal groups are present in the area. The on-site inspection also confirmed that the land holds no cultural significance for any community. Therefore, there is no risk to indigenous peoples or their cultural heritage.
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4.2.7.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	The project does not interfere with property rights or access to resources. All land used for the project is privately owned and was acquired through direct negotiations on a willing buyer-willing seller basis with the landowners. Hence, there is no risk identified regarding property rights.

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Not Applicable
Benefit sharing during the monitoring period	Not Applicable

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	The project is a solar power project. Hence, no risk identified.
Soil degradation and soil erosion	The project is a solar power project. Hence, no risk identified.

Water consumption and stress	The project is a solar power project. Hence, no risk identified.
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4.2.8.1 Rare, Threatened, and Endangered species.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	The project is a solar power project. Hence, no risk identified.
Areas needed for habitat connectivity	The project is a solar power project. Hence, no risk identified.

	Evidence gathering activities, evidence checked, and assessment conclusion
Habitats for rare, threatened, and endangered species	The project is a solar power project. Hence, no risk identified.
Areas for habitat connectivity	The project is a solar power project. Hence, no risk identified.

4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
Not Applicable	The project is a solar power project. Hence, no risk identified.

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
Not Applicable	The project is a solar power project. Hence, no risk identified.

Evidence gathering activities, evidence checked, and assessment conclusion	
Invasive species	The project is a solar power project. Hence, no risk identified.

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	The project is a solar power project. Hence, no risk identified.

4.3 Accuracy of Reduction and Removal Calculations

The verification team has reviewed the emission reduction (ER) spreadsheet, reviewed all formulas, and confirmed their accuracy and consistency with the monitoring plan outlined in the registered VCS Joint Project Document and Monitoring Report /03/, as well as the applied monitoring methodology /06/.

According to the applied methodology “ACM0002”, “Consolidated baseline methodology for grid connected electricity generation from renewable sources”, version 17.0 /08/, the emission reductions have been calculated based on the following formula:

Baseline Emission:

The baseline emissions (BE_y) are calculated based on the following formula:

$$BE_y = EGPJ, y \times EF_{grid,CM,y}$$

Where;

EGPJ, y	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the VCS project activity in year y (MWh/yr)
EF _{grid,CM,y}	Combined margin CO ₂ emissions factor in year y (tCO ₂ /MWh)

$$EGPJ,y = EG_{facility,y}$$

Where,

EG_{facility,y} = Quantity of net electricity generation supplied by the project plant/unit to the grid in year ‘y’

The grid emission factor is fixed ex-ante in the JPD & MR /03/as given below:

Parameter	Value
OM	0.9843

BM	0.9083
CM	0.9653

Therefore,

$$\begin{aligned}
 BE_y &= EGPJ_y \times EF_{grid,CM,y} \\
 &= 60,262 \text{ MWh} \times 0.9653 \\
 &= 58,171 \text{ tCO}_2\text{e}
 \end{aligned}$$

As per the methodology /06/ and the registered joint PD and MR /03/, the project does not need consider project and leakage emissions

Hence,

$$\begin{aligned}
 ER_y &= BE_y - PE_y - LE_y \\
 &= 58,171 \text{ tCO}_2\text{e}
 \end{aligned}$$

Emission reductions have been calculated in accordance with the applied methodology ACM0002 version 17 /08/, and VCS JPD&MR /03/. The PP has used monitored data and ex-ante fixed data including default values as mandated/permitted by the applied methodology. The values used for calculation of GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

4.4 Quality of Evidence to Determine Reductions and Removals

EPL verification team confirms that all the emission sources within the project boundary have been considered appropriately. Monitoring of all parameters during the monitoring period is followed as per registered monitoring plan. Below table describes the data parameters relevant to the monitoring plan:

Data parameters fixed ex-ante and available at validation are given below:

Data/Parameter Unit	Source of data	Reported value for the project period	Assessment/Observation
Operating margin CO ₂ emission factor in year y ($EF_{grid,OM,y}$)	Data based on registered PD /03/, joint validation and verification report /04/	0.9843 tCO ₂ /MWh	The $EF_{grid,OM,y}$ was calculated and sourced from baseline CO ₂ Emission database, "Tool to calculate the emission factor for an electricity system, version 07.0.0" as 3-year generation weighted average using data for the years 2013- 2014, 2014-2015 &

			2015-2016. The data are obtained from “CO2 Baseline Database for Indian Power Sector” version 12.0, May 2017, published by the Central Electricity Authority, Ministry of Power, Government of India. This is consistent in the registered joint PD and MR /03/.
Build margin CO ₂ emission factor in year y (EF _{grid,BM,y})	Data based on registered joint PD and MR /03/, joint validation and verification report /04/	0.9083 tCO ₂ /MWh	The EF _{grid,BM,y} was calculated as per “Tool to calculate the emission factor for an electricity system, version 07.0.0”. The data is obtained from “CO2 Baseline Database for Indian Power Sector” version 14.0, May 2018, published by the Central Electricity Authority, Ministry of Power, Government of India. This is consistent in the registered PD and MR /03/.
Combined margin CO ₂ emission factor in year y (EF _{grid,CM,y}) tCO _{2e} /MWh	Data based on registered joint PD and MR /03/, joint validation and verification report /04/	0.9653 tCO ₂ /MWh	The EF _{grid,CM,y} was calculated based on 75% of OM and 25% of BM values approach as directed by ‘Tool to calculate the emission factor for an electricity system”, version 07.0.0”. This is consistent in the registered joint PD and MR /03/.

Data and Parameters monitored:

Data/ Parameter	Assessment
Parameter/unit	EGPJ, y /MWh
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh

Source of data to be used	Monthly joint meter reading reports of respective state	
Value of monitored parameter for the monitoring period	60,262 Mwh	
	Vintage Year	Net Electricity Generated (Mwh)
	01-May-2024 to 31-Dec-2024	47,353
	01-Jan-2025 to 28-Feb-2025	12,909
	Total	60,262
Monthly net generation from project 20MW and 25 MW as recorded in main meter at substation are taken directly from monthly generation records supplied by Vector Green Sunshine Private Limited (VGSPL) and O&M division of Transmission corporation of Telangana Limited (TCTL). The calculation is transparently provided in the emission reduction worksheet /02/. For this monitoring period, the net generation has been calculated based on the approved Joint Meter Reading (JMR). The actual meter readings were derived by applying a multiplication factor of 120,000 to getting the actual meter readings. This multiplication factor has been consistently applied across all months of the monitoring period. The audit team checked the monthly generation records as provided by PP and found consistent. The VVB has reviewed the Emission Reduction Report (ERR) sheet and confirmed that the generation data have been appropriately sourced from the JMR and the corresponding invoices. Furthermore, the formulas applied for the calculation of emission reductions were found to be consistent with, and in full alignment with, the requirements of the applied methodology. Hence, the calculations presented in the ERR can be considered reliable and acceptable for this monitoring period. Further, the monthly generation is crosschecked from the bill of supply/invoice /10/ raised by PP.		

Measuring/Reading/Recording frequency	The frequency of calibration is once in 5 years which is in align with requirement of CEA notification /21/
Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid. The billing meter used for project activity having following specification Monitoring: ABT cum Tri vector meter are used Data type: Measured Type of meter: Static type meter (Main, Check & Standby meter). Accuracy Class of meters: 0.2s The meter details are being mentioned and mentioned below
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh – Import, kWh

Meter Details:

Meter Calibration details of 25 MW solar project by Polepally Solar Parks Private Limited

Meter Details	Main Meter	Check Meter	Standby Meter
Old meters	XC510829	XC510830	APX00481
Make	Secure	Secure	Secure
Accuracy Class	0.2s	0.2s	0.2s
New meters.	0024007901	0024007902	0024007905
Make	Schneider Electric India	Schneider Electric India	Schneider Electric India
Accuracy Class	0.2s	0.2s	0.2s
Date of Meter Calibration (old)	22 October 2021	22 October 2021	22 October 2021
Due date for meter calibration (old)	21 October 2026	21 October 2026	21 October 2026

Date of Meter Calibration(new)	20-06-2024	20-06-2024	20-06-2024
Due Date of Meter Calibration	19-06-2029	19-06-2029	19-06-2029

The old meters were replaced with new meters on 20/06/2024, however the validity of calibration is until 21/10/2026. Hence there is no delay in calibration.

Meter Calibration details of 20 MW solar project by Vector Green Sunshine Private Limited

Meter Details	Main Meter	Check Meter	Standby Meter
Sl. No.	15191785	PST00103	PST00449
Make	L&T	L&T	L&T
Accuracy Class	0.2s	0.2s	0.2s
Date of Meter Calibration	28.09.2022 03-08-2024	11-04-2023	11-04-2023
Due Date of Meter Calibration	02-08-2029	10-04-2028	10-04-2028

The old check meter, with serial number “15191778” has been replaced with two meters – PST00103 (Check Meter) and PST00449 (Standby Meter) on 11th April 2023. The calibration certificates of the same have been checked by the audit team.

The 100% data/records were checked and validated during the remote verification as well to ascertain the monitoring results reported by PP. For enhancing the reliability of the data measured and recorded, timely calibration of the measuring equipment was done by PP aligning with the registered JPD & MR /03/. The results/data are found consistent with remote audits.

Also, project developer has set up grievance/repair/maintenance mechanisms and rectifies any issues for the operation of the project activity with timely replacements of measuring equipment and calibration accordingly. The operationality of the project equipment’s were recorded appropriately and are considered for ER calculation appropriately for this monitoring period.

So, EPL is of the opinion that this method of calculation of emission reductions is accurate and results in conservative estimation of emission reduction and is line with the applicable VCS requirements.

4.5 Non-Permanence Risk Analysis

There is no non-permanence risk rating applicable for the project.

5 VERIFICATION OPINION

5.1 Verification Summary

EPL has performed verification of the emission reductions reported for the project activity with regard to the relevant requirements for VCS activities. The project participants of the project is responsible for:

- the preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered project design document.
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project in line with applied methodology and VCS.

It is the responsibility of EPL to express an independent verification opinion about the project's conformity with the requirements of VCS Standard version 4.7 /06/ and GHG program applied on the reported greenhouse gas emission reductions from the project. Based on documented evidence and corroborated by an remote assessment, EPL can confirm that:

- the project has been implemented and operated as per the registered Joint Project Description and Monitoring Report /03/;
- the monitoring report /01/ and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Standard version 4.7 /06/ requirements;
- the monitoring is in place as per the applied baseline and monitoring methodology /03/
- the monitoring plan in the MR is as per registered JPD & MR /03/ complying with the applied baseline and monitoring methodology /03/.

5.2 Verification Conclusion

It is EPL's opinion that the GHG emission reduction stated in the monitoring report version 02 of 15-May-2025 for the "Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited" (VCS 1745)" for the period 01-May-2024 to 28-February-2025 and corresponding emission reduction calculation sheet (version 2 of date 15-May-2025) are fairly stated. The GHG emission reductions are calculated on the basis of approved methodology (ACM0002- Grid-connected electricity generation from renewable sources, Version-17) and the monitoring plan included in the registered JPD & MR, version 03 of 21-March-2018. Hence, EPL hereby confirm that the verification is done in line with criteria of VCS. EPL is able to certify that the emission reduction from the project during the monitoring period is as shown below:

Verification period: From 01-May-2024 to 28-02-2025

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

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-05-2024 to 31-Dec-2024	45,710	0	0	45,710	0	45,710
01-Jan-2025 to 28-Feb-2025	12,461	0	0	12,461	0	12,461
Total	58,171	0	0	58,171	0	58,171

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-May-2024 to 31-Dec-2024	47,035	45,710	-0.33 %	During the current monitoring period, electricity generation (58,171 tCO ₂ e) is 0.33% lesser than the estimated reductions (58,362 tCO ₂ e) in the registered JPD & MR /03/. The generation of electricity depends on the climatic conditions. It is to be noted that due to lesser generation in the current monitoring period, there is no impact on the
01-Jan-2025 to 28-Feb-2025	11,327	12,461		
Total	58,362	58,171		

				additionality of the project activity. Hence, the decrease is acceptable.
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APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Section	Information	Justification	Assessment method and conclusion
Not Applicable	Not Applicable	Not Applicable	Not Applicable

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
EPL	Eco-Lance Private Limited
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
JPD & MR	Joint Project Description and Monitoring Report
LoA	Letter of Approval
MoV	Means of Verification
MWh	Mega Watt Hour
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document

VVB	Validation Verification Body
MM	Main Meter
CM	Check Meter
SM	Standby Meter
SECI	Solar Energy Corporation of India

APPENDIX 3: DOCUMENT REVIEW

Code	Document's Name
/01/	Monitoring Report - Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited Version: 01 (Dated: 25/08/2024) Version: 02 (Dated: 15/05/2025) Version 03 (Dated 30/06/2025)
/02/	Emission Reduction Calculation Spreadsheet- Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited Version: 01 (Dated: 25/08/2024) Version: 02 (Dated: 15/05/2025)
/03/	Joint PD & MR- Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited Version: 03 (Dated: 21/03/2018)
/04/	Joint Validation and Verification Report : Bundled Solar Power Project by Vector Green Sunshine Private Limited and Polepally Solar Parks Private Limited Version: 03 (Dated: 26/03/2018)
/05/	VCS: VCS Program Guide, version 4.4 of 29-August-2023
/06/	VCS: VCS Standard, version 4.7 of 16-April-2024
/07/	VCS: Monitoring Report Template, version 4.4 of 16-April-2024
/08/	CDM Executive Board: Baseline and Monitoring Methodologies: ACM0002- Grid-connected electricity generation from renewable sources, Version: 17.0
/09/	Commissioning Certificate- 20 MW Solar Power Project (Punjab Energy Development Agency) – Dated: 24/03/2016 25 MW Solar Power Project (Southern Power Distribution Company of Telangana limited)- Dated: 27/06/2016
/10/	JMR and Monthly Invoices- 01-May-2024 to 28-February-2025
/11/	Power Purchase Agreement- 20 MW Solar Power Project Punjab State Power Corporation Limited & M/S PI Sunshine Limited (Dated: 31-03-2015) 25 MW Solar Power Project Southern Power Distribution Company of Telangana Limited & M/S Polepally Solar Parks Private (Dated; 29-05-2014)
/12/	Calibration Certificate 20 MW solar project by Vector Green Sunshine Private Limited Main Meter: 1519785 Check Meter: PST00103 25 MW solar project by Polepally Solar Parks Private Limited Main Meter: 0024007901 Check Meter: 0024007902 AMR installation reports

/13/	Grievance Register
/14/	HR Policy
/15/	Employment Records
/16/	KML File for the project activity
/17/	Universal Declaration of Human Rights https://www.un.org/en/about-us/universal-declaration-of-human-rights
/18/	Ratification of the International Convention on the Elimination of All Forms of Racial Discrimination https://nhrc.nic.in/documents/india_ratification_status.pdf
/19/	Law of prohibition for child labour https://labour.gov.in/whatsnew/child-labour-prohibition-and-regulation-amendment-act-2016
/20/	Law for prohibiting forced and compulsory labour The Child Labour (Prohibition and Regulation) Amendment Act, 2016 Ministry of Labour & Employment Government of India
/21/	● CEA database, Version 12.0 dated December 2017. ● CEA (Installation and Operation of Meters) Regulations Notified on 17/03/2006- http://www.powermin.nic.in/whats_new/pdf/Metering_Regulations.pdf Amendment notified on- http://www.cea.nic.in/reports/regulation/amend_meter_reg.pdf
/22/	VCS: VCS Guidance-Validation and Verification Manual, Version 3.2
/23/	Project link Verra Website: https://registry.terra.org/app/projectDetail/VCS/1745
/24/	Submission evidence for previous monitoring period: VCS VerR 1745 01112022 to 30042024- Final- MP (01-November-2022 to 30-April-2024 (both days included), Version: 3.0
/25/	UNFCCC Website: http://cdm.unfccc.int
/26/	VCS Registry: https://registry.terra.org/
/27/	https://www.crisilratings.com/mnt/winshare/Ratings/RatingList/RatingDocs/VectorGreenSunshinePrivateLimited_May%2019,%202023_RR_319247.html

APPENDIX 4: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARDS ACTION REQUEST

Table 1. Remaining FAR from Previous verification and/or validation

FAR ID	00	Section no.		Date: DD/MM/YYYY
Description of FAR				
Not Applicable				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
VVB's assessment				Date: DD/MM/YYYY

Table 2. CL from this verification

CL ID	01	Section no.	Appendix 2	Date: 18/04/2025
Description of CL				
20 MW solar power plant 1. In place of check meter, new main meter for SLDC has been installed as observed during the remote audit. PP shall clarify this and provide the actual meter details along with calibration certificates. 2. The stand-by meter provided does not exist as confirmed by VVB during the remote visit. PP shall clarify this and provide the actual meter details along with calibration certificates.				
Project participant response (1 st round)				Date: 15/05/2025
PSTCL have requested us to arrange for real time data monitoring at the PSTCL substation. For that purpose, we have replaced the old check meter was replaced with new meters. PP has updated the meter details in the revised MR and has provided the relevant calibration certificates for the same.				

Documentation provided by project participant	
Calibration Certificates	
Revised Monitoring Report	
VVB's assessment (1 st round)	Date: 22/05/2025
1. In the revised MR, the PP has updated the details of the check meter. The old check meter with serial number: 15191778 is replaced with new check meters with serial numbers PST00103 and PST00449, where PST00449 is the stand-by meter. VVB reviewed the revised MR and found consistent with calibration certificate. 2. Check meter with serial number: PST00449 is considered as stand-by meter as there were two check meter installed replacing the old check meter with serial number: 15191778. VVB crosschecked the calibration certificate and found consistent. Hence, CL is closed	

Table 3. CAR from this verification

CAR ID	01	Section no.	B.4.2/4.3/ Appendix	Date: 18/04/2025
Description of CAR				
PP shall include the reference or footnote to the standard/guideline for which the calibration frequency is mentioned as 5 years. The last calibration certificates for 2021/2022 for both 20 MW and 25 MW Projects shall be provided.				
Project participant response (1 st round)				Date: 15/05/2025
PP has included the footnote of the calibration frequency guidelines in the revised MR. PP has also provided the relevant calibration certificates for both 20 MW and 25 MW projects.				
Documentation provided by project participant				
Calibration Certificates				
Revised Monitoring Report				
VVB's assessment (1 st round)				Date: 22/05/2025
The VVB has reviewed the reference provided in the footnote and cross-checked it against the Central Electricity Authority (CEA) document. The calibration frequency is found to be consistent with Section 18 of the CEA document. Hence, CAR is closed				

CAR ID	02	Section no.	Appendix 2	Date: 18/04/2025
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Description of CAR	
For the 25 MW solar project, the meter serial numbers provided correspond to the previously installed meters (Main Meter: XC510829, Check Meter: XC510830, Standby Meter: APX00481). These meters have since been replaced with new meters bearing the serial numbers Main Meter: 0024007901, Check Meter: 0024007902, and Standby Meter: 0024007905. PP shall make the necessary changes, and provide the replacement details in the MR along with the calibration certificates of the old/new meters.	
Project participant response (1 st round)	Date: 15/05/2025
PP has updated the meter details in the revised MR and have provided the relevant calibration certificates.	
Documentation provided by project participant	
Calibration Certificates	
Revised Monitoring Report	
VVB's assessment (1 st round)	Date: 22/05/2025
The VVB has reviewed MR and confirmed that PP has incorporated the necessary changes in the revised MR.	
Hence, CAR is closed.	

CAR ID	03	Section no.	Appendix 2	Date: 18/04/2025
Description of CAR				
For the 20 MW solar project, the previously installed meters with serial numbers Main Meter: 15191785 and Check Meter: 15191778 have been replaced with new meters bearing serial numbers Main Meter: PST00103 and Check Meter: PST00449. PP shall make the necessary changes, and provide the replacement details in the MR along with calibration certificates of the old/new meters				
Project participant response (1 st round)				Date: 15/05/2025
PP has updated the meter details of the 20 MW solar project in the revised MR. PP has also provided the relevant calibration certificates of the meters.				
Documentation provided by project participant				
Calibration Certificates				
Revised Monitoring Report				

VVB's assessment (1 st round)	Date: 22/05/2025
The VVB has reviewed the revised MR and observed that the serial number of the main meter is 15191785. Necessary changes have been made to the check meter, as the previous check meter with serial number 15191778 has been replaced by new check meters with serial numbers PST00103 and PST00449, where PST00449 serves as the stand-by meter. The main meter and check meter details are found to be consistent with the calibration certificate. Hence, CAR is closed.	

APPENDIX 5: COMPETENCY CERTIFICATES



Certificate of Appointment

<< ESWAR MURTY >>

The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
☒ VCS	☒ CCBS	☒ GS4GG	☒ GCC
☐ SD Vista	☒ Social Carbon	☐ Plan Vivo	☐ Plastic Standard
☐ CerCarbono	☒ ISO 14064-1: 2018		

Role			
☒ Auditor	☒ Team Leader	☒ Reviewer	☒ Technical Expert
☐ Financial Expert	☐ Trainee	☐ Local Expert	☒ GHG Verifier [Applicable to 14064-1: 2018]

Sectoral Scopes	
☒ Energy Industries (Renewable/Non-Renewable)	
☒ Energy Demand	
☒ Waste Handling and Disposal	
☐ Forestry and Other Land Use	
☐ Agriculture	
☐ Livestock and Manure	
☒ General [Applicable to 14064-1: 2018]	

Certificate No	EPL/CER/EM/2
Date	15/02/2025
Validity	14/02/2026

Authorized by	Rekha Menon
Designation	Director
	



Certificate of Appointment

<< BIDYUT PAVAN BAISHYA >>

The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
☒ VCS	☐ CCBS	☒ GS4GG	☒ GCC
☐ SD Vista	☐ Social Carbon	☐ Plan Vivo	☐ Plastic Standard
☐ CerCarbono	☒ ISO 14064-1: 2018		

Role			
☐ Auditor	☐ Team Leader	☐ Reviewer	☐ Technical Expert
☐ Financial Expert	☒ Trainee	☐ Local Expert	☐ GHG Verifier [Applicable to 14064-1: 2018]

Sectoral Scopes	
☐ Energy Industries (Renewable/Non-Renewable)	
☐ Energy Demand	
☐ Waste Handling and Disposal	
☐ Forestry and Other Land Use	
☐ Agriculture	
☐ Livestock and Manure	
☒ General [Applicable to 14064-1: 2018]	

Certificate No	EPL/CER/BB/2
Date	01/02/2025
Validity	31/01/2026

Authorized by	Rekha Menon
Designation	Director
	



Certificate of Appointment

<< CHAMPOK BURAGOHAIN >>

The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
☒ VCS	☒ CCBS	☒ GS4GG	☒ GCC
☒ SD Vista	☒ Social Carbon	☐ Plan Vivo	☐ Plastic Standard
☐ CerCarbono	☒ ISO 14064-1: 2018		

Role			
☒ Auditor	☒ Team Leader	☒ Reviewer	☒ Technical Expert
☐ Financial Expert	☐ Trainee	☐ Local Expert	☒ GHG Verifier [Applicable to 14064-1: 2018]

Sectoral Scopes	
☒ Energy Industries (Renewable/Non-Renewable)	
☒ Energy Demand	
☒ Waste Handling and Disposal	
☐ Forestry and Other Land Use	
☐ Agriculture	
☐ Livestock and Manure	
☒ General [Applicable to 14064-1: 2018]	

Certificate No	EPL/CER/CH/5
Date	15/02/2025
Validity	14/02/2026

Authorized by	Rekha Menon
Designation	Director
	