Project Verification Report

2021

COVER PAGE Project Verification Report Form (VR)	
BASIC INFORMATION	
Name of approved UCR Project Verifier / Reference No.	Enviance Services Private Limited
Type of Accreditation	☐ CDM or other GHG Accreditation ☒ ISO 14065 Accreditation
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	01 Energy industries (Renewable/Non-Renewable Sources)
Validity of UCR approval of Verifier	30/09/2027
Completion date of this VR	01/09/2025
Title of the project activity	7 MW Clean Energy Project by Gro Solar
Project reference no. (as provided by UCR Program)	UCR 533
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.)	Viviid Emissions Reductions Universal Private Limited
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Name: Mr. Lokesh Jain Email ID – lokesh.jain@viviidgreen.com
Country where project is located	India
Applied methodologies (approved methodologies by UCR Standard used)	AMS-I.D., Grid connected renewable electricity generation, Version 18.0
GHG Sectoral scopes linked to the applied methodologies	01 Energy industries (Renewable/Non-Renewable Sources)
Project Verification Criteria: Mandatory requirements to be assessed	☒ UCR Standard ☒ Applicable Approved Methodology ☒ Applicable Legal

	requirements /rules of host country ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Do No Harm Test ☒ Emission Reduction calculations ☒ Monitoring Report ☒ No GHG Double Counting ☐ Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☒ Social Safeguards Standard do-no-harm criteria
Project Verifier's Confirmation: The *UCR Project Verifier* has verified the UCR project activity and therefore confirms the following:	The UCR Project Verifier Enviance Services Private Limited, certifies the following with respect to the UCR Project Activity *7 MW Clean Energy Project by Gro Solar* ☒ The Project Owner has correctly described the Project Activity in the Project Concept Note version 1.1 (dated 27/05/2025) including the applicability of the approved methodology *AMS-I.D., Grid connected renewable electricity generation, Version 18.0* and meets the methodology applicability conditions and has achieved the estimated GHG emission reductions, complies with the monitoring

	methodology and has calculated emission reductions estimates correctly and conservatively. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated 11,147 tCO_{2e} annually, as indicated in the PCN, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable UCR rules, including ISO 14064-2 and ISO 14064-3. ☒ The Project Activity is not likely to cause any net-harm to the environment and/or society ☒ The Project Activity complies with all the applicable UCR rules[1] and therefore recommends UCR Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	Verification Report UCR Reference number: 533 Date of approval: 09/09/2025

1https://a23e347601d72166dcd6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025Ver11_230525172325112351.pdf

Name of the authorised personnel of UCR Project Verifier and his/her signature with date	 Vidhya Muralikrishna Quality Manager Date: 09/09/2025

PROJECT VERIFICATION REPORT

Executive summary

The project activity is titled- “7 MW Clean Energy Project by Gro Solar”. It is a solar-power Project which is located in Village Degaon, Taluka -Shindkheda (Dhule), Maharashtra State, India. The project activity aims to harness solar radiation, a renewable energy source, to generate electricity for supply to Maharashtra grid by the project proponent (PP), Gro Solar Energy Pvt. Ltd. The project involves the installation and operation of a 7.0 MW_{AC} ground mounted solar power plant, located in Maharashtra, India, to generate clean energy and reduce greenhouse gas (GHG) emissions.). This project comprises of solar panels spread across Degaon village.
The solar project generates approximately 49,780.56 MWh of clean electricity in the current monitoring period. The net electricity generated from the project is evacuated to 33/11 kV Bay of Degaon Substation. From this substation, the power can then be further transmitted to other parts of the electrical grid for consumption. This process ensures the generated solar power is integrated into the larger power supply system. The power purchase agreement is valid for a period of 20 years, aligned with the operational lifetime of the project activity, and outlines the terms and conditions for energy injection, transmission losses, scheduling, and settlement.
The expected operational lifetime of the project is for 20 years. Addressing the energy demand-supply gap in Gujarat and supporting the region’s sustainable growth.
The solar plant has been operational since 25/06/2021. The project has been operational since the earliest commissioning date.
This project activity was not registered in any other registries prior to its registration in UCR. PP seeks verification under UCR from 25/06/2021 onwards, i.e., crediting period for UCR starts from 25/06/2021. Hence, there is no double counting for said projects.

Commissioning dates of the project activity are mentioned in the table below:

Sr. No.	Location	Type	Total installed capacity MWp	Commissioning Date
1	Dhule, Maharashtra, India	Ground Mounted	7 MW (AC)	25/06/2021

Geo Co-ordinates of the project activity are mentioned in the table below:

Site Address	Degaon village, Dhule district, Maharashtra state
Latitude	21° 10' 39" N
Longitude	74° 34' 02" E
Map link	https://maps.app.goo.gl/YZmwhRPYhvnQAusJA
Elevation	178 Meter
Ground type	Free field with 2-3 meter undulations are Observed

Proposed solar power project has evolved as a result of the policies of Government of India and Government of Maharashtra, which encourages energy development from renewable sources. These policies have given fresh impetus to wind power generation.

The Project Activity is a greenfield solar project and the net generated electricity from the project activity is being provided to the Maharashtra State Power Generation Company Limited (MSPGCL) by the project proponent. A Power Purchase Agreement is signed between the project proponent and Maharashtra State Power Generation Company Limited (MSPGCL). The project activity involves a Ground-Mounted Photovoltaic (PV) Solar Power Plant with a total installed capacity of 7 MW_{AC}. The project utilizes Polycrystalline and Monocrystalline solar photovoltaic technologies to generate clean, renewable energy.

The project consists of ground mounted photo voltaic solar plant with a installed capacity of 7 MW. The plant was commissioned by the respective authority of government of Maharashtra. The project generates clean energy by utilizing the solar Radiations.

The applied technology is considered to be one of the most environment friendly technologies available as the operation of the Solar photovoltaic does not emit any GHGs or any other harmful gases unlike the operation of conventional power plants. Photovoltaic module consists of several photovoltaic cells connected by circuits and sealed in an environmentally protective laminate, which forms the fundamental building blocks of the complete PV generating unit. Several PV panels mounted on a frame are termed as PV Array.

The generation of power from solar photovoltaics is a clean technology as there is no fossil fuel-fired or no GHG gases are emitted during the process. A photovoltaic module consists of several photovoltaic cells connected by circuits and sealed in an environmentally protective laminate, which forms the fundamental building blocks of the complete PV generating unit. Several PV panels mounted on a frame are termed PV Array. Thus, project activity leads to a reduction the GHG emissions as it displaces power from fossil fuel-based electricity generation in the regional grid. Since the project activity generates electricity through solar energy, a clean renewable energy source it will not cause any negative impact on the environment and thereby contributes to climate change mitigation efforts.

The project also incorporates a Supervisory Control & Data Acquisition (SCADA) system, which provides a graphical representation of operational data, long-term data storage, and historical analysis. It facilitates access to daily generation reports and power curve monitoring while enabling both real-time and offline troubleshooting with advanced analytical tools.

Without this project, the amount of electricity generated would come from fossil fuel-based power plants, which is the baseline scenario. This renewable energy project reduces emissions and supports local manufacturing through technology transfer.

The Plant Load Factor has been determined by taking the normative benchmark as 25% as per DPR. The project being a renewable energy generation activity, leads to reduction in fossil fuel dominated electricity generation from the Indian grid.

The core objective of this project activity is to displace an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid. The estimated lifetime of the project activity is considered as 20 years for solar technology. In the Pre- project scenario the entire electricity, consumed by the customers or delivered to the grid by, would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources.

This project generates 7 MW power which supplied to the Maharashtra (Indian) Grid system. The applied technology is one of the most environment friendly technologies available as the operation of the solar power plant does not emit any GHGs or any other harmful gases unlike the operation of conventional power plant. The project activity has used the reliable and proven technology to ensure that an environmentally safe and sound technology has been implemented.

The project activity also contributes to SDG goals 4,7, 8 and 13.
The first crediting period of the project activity in UCR is 03 years, 06 months, 07 days in which total estimated electricity generation is 15,330 MWh and the total GHG emission reduction estimated is 11,147 tCO_2e annually.
The electricity generation for the current monitoring period is 49,780.56 MWh and total GHG emission reduction is 42,754 tCO_2e.

Scope of Verification

The scope of the services for the project is to perform Project Verification of concerned Project Activity. The scope of verification is to assess the claims and assumptions made in the Project Concept Note (PCN) and Monitoring Report (MR) against the UCR criteria, including but not limited to, UCR program verification guidance document, UCR Standard, UCR Program Manual, and related rules and guidelines established under Program process.

Verification Process and Methodology

The verification process was undertaken by a competent verification team and involved the following,

- Desk review of documents and evidence submitted in context of the reference rules and guidelines issued by UCR,
- Undertaking/conducting site visit/remote audit, interview or interactions with the representative of the project owners/representatives,

- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and preparing a draft verification opinion based on the auditing findings and conclusions
- Finalization of the verification opinion (this report)

Desk/Document review

A detailed desk review of the PCN, MR, Methodology and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the site visit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face to face interviews with key stakeholders (including the project developers and where necessary, government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included in Appendix 3 below.

Follow up interviews/site visit

The verifier conducted remote audit and had requested for site photographs, short videos. A remote interview was conducted with the project owners and stakeholders.

Conclusion

Based on the work performed, the verifier concludes that in the project activity “7 MW Clean Energy Project by Gro Solar”, the information and data presented in the MR version 1.1 dated 12/06/2025 is in line with the Project Concept Note Version 1.1 dated 27/05/2025 and meets all relevant requirements of the UCR for UCR project activities. The UCR project activity correctly applies the methodology “AMS-I.D., Grid connected renewable electricity generation”, Version – 18.0” leading to result in real, measurable and long-term emission reductions achieved for the current monitoring period.

For the current monitoring period, verified emission reductions achieved by the project activity were as below;

Start date of monitoring period	25/06/2021
End date of monitoring period	31/12/2024
Emission reductions achieved	42,754 tCO_2 eq

Project Verification team, technical reviewer and approver

Project Verification team

No.	Role	Last name	First name	Affiliation (e.g. name of central or other office of UCR Project Verifier or outsourced entity)	Involvement in		
					Doc review	Off-Site inspection	Interviews
1.	Team Leader/Technical Expert	Singh	Ritu	Enviance Services Private Limited	Yes	Yes	Yes
2.	Team Leader in Trainee	Mahajan	Swati	Enviance Services Private Limited	Yes	Yes	Yes

Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of UCR Project Verifier or outsourced entity)
1.	Technical reviewer	Contracted	-	Mr. Vijayanand	Enviance Services Private Limited
2.	Approver	Internal	Krishna	Vidhya Murali	Enviance Services Private Limited

Means of Project Verification

Desk/document review

A detailed desk review of the PCN, MR, methodology and all other associated documentation and references took place in advance of the remote audit, and additional documents that were not available for the desk review were requested for review during the remote audit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face-to face interviews with key stakeholders (including the project developers and where necessary, Government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included in Appendix 3 below.

Off-site inspection

Date of off-site inspection: 04/07/2025			
No.	**Activity performed Off-Site**	**Site location**	**Date**
1.	a) An assessment of the implementation and operation of the project activity as per the PCN and UCR requirements b) Verification of the project design, as documented is sound and reasonable, and meets the identified criteria of UCR Standard Requirements and associated guidance c) Assessment to conformance with the certification criteria as laid out in the UCR Standards; d) Evaluation of the conformance with the certification scope, including the GHG project and baseline scenarios, additionality; GHG sources, sinks, and reservoirs; and the physical infrastructure, activities, technologies and processes of the GHG project to the requirements of the UCR; e) Evaluation of the calculation of GHG emissions, including the correctness and transparency of formulae and factors used; assumptions related to estimating GHG emission reductions; and uncertainties; and determination whether the project could reasonably be expected to achieve the estimated GHG reduction/removals. f) Review of information flows for generating, aggregating and reporting of the parameters to be monitored g) To confirm that the operational and data collection procedures can be implemented in accordance with the Monitoring Plan h) Cross-check of information provided in the submitted documents and data from other sources available at site i) Review of calculations and assumptions made in determining the GHG data and estimated ERs, and an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters Interviews of local Stakeholders	Village Degaon, Taluka -Shindkheda District - Dhule, State – Maharashtra, India	04/07/2025

Interviews

No.	Interview			Date	Subject
	Last name	First name	Affiliation		
1.	Girase	Rajdeep	Gro Solar Energy Pvt. Ltd.	04/07/2025	Project Implementation, Monitoring plan, Project Boundary, Eligibility criteria, Host country requirements, Emission reduction calculations Project implementation, monitoring, Local stakeholder consultation
2.	Girase	Gulabsing			
3.	Pawar	Shubham			
4.	Kohli	Dhruv	Viviid Emissions Reductions Universal Private Limited		
5.	Darne	Minal			
6.	Nipurte	Krishna D.	Local Stakeholders		
7.	Girase	Ramesh			
8.	Girase	Surendra			
9.	Girase	Narayan			
10.	Girase	Kamalsing			

Sampling approach

Not Applicable.

Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)			
Identification and Eligibility of project type	-	-	-
General description of project activity	02	-	-
Application and selection of methodologies and standardized baselines	-	-	-
- Application of methodologies and standardized baselines	-	01	-
- Deviation from methodology and/or methodological tool	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	-	-	-
- Project boundary, sources and GHGs	-	-	-
- Baseline scenario	-	-	-
- Estimation of emission reductions or net anthropogenic removals	01	-	-
- Monitoring Report	-	01	-
Start date, crediting period and duration	-	-	-
Environmental impacts	-	-	-
Project Owner- Identification and communication	-	-	-
Others (SDG Goals)	01	01	-
Total	**04**	**03**	-

Project Verification findings

Identification and eligibility of project type

Means of Project Verification	The project has an installation of a 7 MW solar power capacity and hence it qualifies as a small-scale project. This is confirmed based on the commissioning certificates and technical specifications. Since the project is a small-scale project, it has applied approved CDM large scale methodology AMS-I.D., Grid connected renewable electricity generation", Version – 18.0. The Project owner has used valid MR form available at the UCR website for the preparation of MR for the current project activity. The project has prepared MR in line with UCR guidance and requirements.
Findings	No findings raised.
Conclusion	The UCR-approved format is used for description and the project meets the requirement of the UCR verification standard and UCR project standard. UCR project communication agreement was submitted to the verifier and the same has been verified. Methodology referenced and applied appropriately describing the project type. The eligibility of the project aggregator is verified using the UCR communication agreement, project correctly applies the verification standard, UCR project standard, and UCR regulations. The project activity is overall meeting the requirements of the UCR Verification standard and UCR project standard.

General description of project activity

<table>
<tr><td>Means of Project Verification</td><td>The project activity involves the operation of a 7 MW of small-scale solar power project and its commissioning date and power evacuation at the grid were verified through the commissioning certificate of the project. The power purchase agreement confirms the companies/entities involved in the agreement for supply of generated electricity from the 7 MW (Village Degaon, Taluka -Shindkheda District - Dhule, State – Maharashtra, India) project.

Assessment team conducted documentation review of the PCN against the UCR program verification standard version 2.0 and UCR CoU Standard (project eligibility criteria) version 7.0 and the UCR-PCN-FORM Version 1.0.

By checking the supporting documents, it is confirmed that the project is a greenfield solar power project, the project is located in Village Degaon, Taluka -Shindkheda District - Dhule, State – Maharashtra, India. The approximate geo-coordinates of the project locations are mentioned below.

<u>Details of Latitude &Longitude for the project site: -</u>
<table>
<tr><td>Site Address</td><td>Degaon village, Dhule district, Maharashtra state</td></tr>
<tr><td>Latitude</td><td>21° 10' 39" N</td></tr>
<tr><td>Longitude</td><td>74° 34' 02" E</td></tr>
<tr><td>Map link</td><td>https://maps.app.goo.gl/YZmwhRPYhvnQAusJA</td></tr>
<tr><td>Elevation</td><td>178 Meter</td></tr>
<tr><td>Ground type</td><td>Free field with 2–3-meter undulations are Observed</td></tr>
</table>
Assessment team performed an offsite inspection of project and confirmed that the location described in the PCN are accurate.
The Project is a solar power project, to utilize solar energy to generate zero carbon emission electricity which is mainly dominated by fossil fuel power output. The project includes integrated power transmission mechanism, high performance solar PV modules, inverters, set up transformers and module mounting systems, other relay & protection systems, microprocessor based fully automatic control system with user friendly operation and central monitoring system. Quality, Safety and Health plan for construction, installation, commissioning and Operation & Maintenance.</td></tr>
<tr><td>Findings</td><td>CL 01 and CL 03 were raised and closed successfully. More information presented in the appendix below.</td></tr>
<tr><td>Conclusion</td><td>The description of the project activity is verified to be true based on the review of PCN, MR, Commissioning Certificate and power purchase agreement.</td></tr>
</table>

Application and selection of methodologies and standardized baselines

(.a.i) Application of methodology and standardized baselines

Means of Project Verification	The project has taken the reference of CDM methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0. CDM website is referred to check the latest version of the methodology. For the applicability mentioned in the PCN and MR, technical Specification, and commissioning certificate.
Findings	CAR 01 was raised and closed successfully. More information presented in the appendix below.
Conclusion	The methodology applied is appropriately meeting the requirements of UCR and its standardized baseline. The methodology version is correct and valid. The referenced methodology is applicable to project activity.

(.a.ii) Clarification on applicability of methodology, tool and/or standardized baseline

Means of Project Verification	The documents reviewed are CDM methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0, UCR Program standard, and UCR Verification Standard.
Findings	No findings raised.
Conclusion	The verification team confirms that all the applicability criteria set by the applied CDM methodology and its eligible tools are met. The relevant information against those criteria is also included in the PCN Ver. 1.1 and MR Ver.1.1. The selected CDM methodology for the project activity is applicable.

(.a.iii) Project boundary, sources and GHGs

Means of Project Verification	Project owner has considered project boundary as per applicable methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0, “The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project power plant is connected to.” Review of PCN and MR confirms that project sites and Indian electricity grid system is considered as a project boundary which is appropriate.
Findings	No findings raised
Conclusion	The project boundary is correctly defined in the PCN and MR. GHGsources are correctly identified and reported. The project meets the requirements of UCR project standard, Verification standard andmethodology requirements for a boundary, GHG sources.

(.a.iv) Baseline scenario

Means of Project Verification	As per the approved consolidated methodology AMS–I.D., Grid connected renewable electricity generation, Version 18, if the project activity is the installation of a new grid-connected renewable power plant/ unit, the baseline scenario is the following: “The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”. Remote audit conducted and document review showed that in absence of the project activity, the generated electricity would have

	been supplied by the Indian grid which is dominated by fossil fuel fired plants.
Findings	No findings raised.
Conclusion	The approved baseline methodology has been correctly applied to identify a realistic and credible baseline scenario, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed UCR project activity. All the assumption and data used by the project participants are listed in the PCN and/or supporting documents. All documentation relevant for establishing the baseline scenario are correctly quoted and interpreted inthe PCN. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable.

(.a.v) Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	The project verification team checked whether the equations and parameters used to calculate GHG emission reductions or net anthropogenic GHG removals for PCN and MR are in accordance with applied methodology. Project verification team checked section B.5 and C.5.1 of the PCN & MR respectively to confirm whether all formulae to calculate baseline emissions, project emission and leakage have been applied in line with the underlying methodology. The emission reduction calculation has been carried out as per the CDM methodology AMS–I.D., Grid connected renewable electricity generation, Version 18 As per the CDM approved AMS–I.D., Grid connected renewable electricity generation, Version 18 paragraph 22, Baseline emissions include only CO_2 emissions from electricity generation in power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows: $BE_y = EG_{PJ,y} \times EF_{grid,y}$ Where; BE_y = Baseline Emissions in year y (t CO_2) $EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh) $EF_{grid,y}$ = CO_2 emission factor of grid electricity for the given year y. A "grid emission factor" refers to a CO_2 emission factor (tCO_2/MWh) which will be associated with each unit of electricity provided by an electricity system. The UCR recommends an emission factor of 0.9 tCO_2/MWh for the 2013-2023 years as a fairly conservative estimate for Indian projects not previously verified under any GHG program. Also, for the vintage 2021, the combined margin emission factor calculated from CEA database in India results into higher emission than the default value. Hence, the same emission factor has been considered to calculate the emission reduction under

conservative approach.[2]

Similarly, for the year 2024, a grid emission factor of 0.757 tCO2/MWh is to be applied. These conservative factors are used to calculate emission reductions.
In order to facilitate adoption of authentic baseline emissions data and in keeping with the principle of "conservativeness," all UCR Indian RE projects shall use the new conservative grid emission factor of 0.757 tCO2/MWh in their emission reduction calculations for the 2024 vintage year. https://medium.com/@UniversalCarbonRegistry/ucr-cou-standard-update-2024-vintage-ucr-indian-grid-emission-factor-announced-ddb790cdc603

Project emissions:
As per paragraph 39 of AMS–I.D., Grid connected renewable electricity generation, Version 18, only emission associated with the fossil fuel combustion, emission from operation of geo-thermal power plants due to release of non-condensable gases, emission from water reservoir of Hydro should be accounted for the project emission. Since the project activity is a wind power project, project emission for renewable energy plant is nil.

Thus, **PE_y =0**.

Leakage Emissions:
As per paragraph 42 of AMS–I.D., Grid connected renewable electricity generation, Version 18, 'If the energy generating equipment is transferred from another activity, leakage is to be considered'. In the project activity, there is no transfer of energy generating equipment and therefore the leakage from the project activity is considered as zero.

Hence, **LE_y= 0**.

Emission reductions:
As per paragraph 43 of AMS–I.D., Grid connected renewable electricity generation, Version 18. emission reduction is estimated as difference between the baseline emission and project emission after factoring into leakage.

Thus, $ER_y = BE_y – PE_y – LE_y$

Where:
ERy = Emission reductions in year y (t CO2)
BEy = Baseline Emissions in year y (t CO2)
PEy = Project emissions in year y (t CO2)
LEy = Leakage emissions in year y (t CO2)

Therefore, $ER_y = BE_y$

The earliest commissioning date of the Project is 25/06/2021 when the solar plant was commissioned. The start date of the crediting period under UCR is considered from 25/06/2021.

For the ease of the calculation, duration of the crediting period in UCR is started from

[2] https://a23e347601d72166dcd6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRStandardAug2024updatedVer7_020824191534797526.pdf

25/06/2021 to 31/12/2024.

The estimated emission reductions are 11,147 CoUs/yr (11,147 tCO2eq/yr)

Year	Net Power produced (MWh)	Baseline emissions (tCO_2/year)	Project emissions (tCO_2/year)	Emission reductions (tCO_2/year)
Year 1	15330	13797	0	13797
Year 2	15330	13797	0	13797
Year 3	15330	13797	0	13797
Year 4	15330	11604.81	0	11604
Year 5	15330	11604.81	0	11604
Year 6	15330	11604.81	0	11604
Year 7	15330	11604.81	0	11604
Year 8	15330	11604.81	0	11604
Year 9	15330	11604.81	0	11604
Year 10	15330	11604.81	0	11604
Total	**153,300**	**122,625**	**0**	**122,619**
Annual average emission reductions				**11,147**

The actual emission reduction achieved during the first CoU's period (25/06/2021 to 31/12/2024) as per the Project Activity:

Actual Total baseline emission reductions (BEy)= 42,754 CoUs (42,754 tCO2eq)

Year	Net Generation	Baseline Emissions	Project Emissions	Leakage	Emission Reductions	EF
	MWh	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2/MWh)
2021	6,450	5,802	0	0	5,802	0.9
2022	14,652	13,180	0	0	13,180	0.9
2023	14,487	13,034	0	0	13,034	0.9
2024	14,192	10,738	0	0	10,738	0.757
Total	**49,780.56**	**42,754**	**0**	**0**	**42,754**	

Findings	CL 04 was raised and closed successfully. More information presented in the appendix below.
Conclusion	In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0. It is confirmed by the assessment team that: (a) All assumptions made for estimating GHG are listed in the PCN; (b) All documentation used by the project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PCN (c) All values used in the PCN including GWPs are considered reasonable in the context of the proposed UCR project activity; (d) The methodologies and, where applicable, the standardized baselines and the other methodological regulatory documents have been applied correctly to calculate baseline, project and leakage GHG emissions, as well as GHG emission reductions; (e) All estimates of the baseline GHG emissions can be replicated using the data and parameter values provided in the PCN;

(.a.vi) Monitoring Report

Means of Project Verification

Parameters determined- Ex-ante

The following parameters are determined ex-ante and verified by the verification team:

The baseline emission factor ($EF_{grid, y}$) of the project is reported to be determined ex-ante and would remain fixed for the crediting period. A "grid emission factor" refers to a CO_2 emission factor (tCO2/MWh) which will be associated with each unit of electricity provided by an electricity system. The UCR recommends an emission factor of 0.9 tCO_2/MWh for the 2013-2023 years as a fairly conservative estimate for Indian projects not previously verified under any GHG program. Also, for the vintage 2021, the combined margin emission factor calculated from CEA database in India results into higher emission than the default value. Similarly, for the year 2024, a grid emission factor of 0.757 tCO2/MWh is to be applied. These conservative factors are used to calculate emission reductions.

In order to facilitate adoption of authentic baseline emissions data and in keeping with the principle of “conservativeness,” all UCR Indian RE projects shall use the new conservative grid emission factor of 0.757 tCO2/MWh in their emission reduction calculations for the 2024 vintage year

Hence, the same emission factor has been considered to calculate the emission reduction under conservative approach. The parameters applied in the calculation were validated by the verification team. The verification team confirms that all relevant parameters have been sufficiently considered and the values of the parameters are real, measurable and conservative.

Parameters monitored ex-post

According to the approved methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0, the following parameters will be monitored:

Parameter	**Description**
$EG_{PJ,y}$	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y

The values of the parameters monitored were checked against submitted Joint Meter Readings and invoices and were found correct.

Meter Details:

Location of meter	33/11 Degon Sub-station				
Type of meter	Main Meter			Check Meter	
Meter Sr. No.	4.8 MW		2.2 MW	4.8 MW	2.2 MW
	Old meter	Q0433285	Q0433279	Q0433264	Q0433253
	New Meter	Q0942846	Q1175410	Q0433264	Q0942847
Meter	Secure Meters Limited			Secure Meters Limited	

	Make		
	Accuracy class	0.2s	0.2s
	Type	All the meters are two-way Tri-vector meters capable of recording import and export of electricity	
	Calibration frequency	Once in 5 years (considered as per provision of CEA India)	
	Calibration Dates		
	Meter installation and calibration Date	23/06/2021 08/08/2025	23/06/2021 08/08/2025

There was no calibration delay for the current monitoring period. Calibration of meters was done as per the CEA regulations. The renewable power generated by the project is supplied to Maharashtra grid.

Management system and quality assurance

The monitoring plan presented in the PCN complies with the requirements of the applicable methodology. The verification team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The management system and quality assurance procedures have been reviewed by the verification team through document review and interviews with the project participant. The project participant would train all the monitoring staffs are trained against with related requirement; the training guidelines and monitoring manual are saved and verified.

The monitoring plan outlines in the PCN includes:

- Monitoring Organization
- Monitoring apparatus and installation
- Calibration
- Data collection
- Data Management system

The submitted calibration certificates were checked and it was confirmed that the calibrations are conducted periodically as specified in the PCN i.e. at least once in 5 years. There was no delay in the calibration during the current monitoring period.

Findings	CAR 03 was raised and closed successfully. More information presented in the appendix below.
Conclusion	The verification team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0. During the remote audit assessment, the verification team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible within the project design. The monitoring parameter reported in MR adequately represents the parameters relevant to emission reduction calculation. The calibration report ensures the accuracy of the data reported. The number of CoUs generation is calculated based on this accurately reported data. The

	calculation was done using an excel sheet where all the parameters were reported. The grid emission factor for electricity is considered as per UCR recommendation for Indian project. In the monitoring report, emission reduction calculations are correctly calculated and reported. The monitoring report meets the requirements of UCR project verification requirements.

Start date, crediting period and duration

Means of Project Verification	The start date and crediting period of project activity was checked based on the commissioning certificate, PCN, MR and other documents provided.
Findings	No findings raised.
Conclusion	The project has chosen crediting period start date in UCR as 25/06/2021. The crediting period is chosen as 25/06/2021 to 31/12/2024 and the crediting period for the current monitoring period is 25/06/2021 to 31/12/2024.

Positive Environmental impacts

Means of Project Verification	PP has not claimed any separate positive environmental impact. The project being renewable energy project will reduce fossil fuel use throughreplacement of the same.
Findings	No findings raised
Conclusion	The project is a renewable energy project and reduces the environmentalburden by reducing the dependence on fossil fuel-based power plants.

Project Owner- Identification and communication

Means of Project Verification	PCN, communication agreement, MR, commissioning certificate, power purchase agreement.
Findings	No findings raised.
Conclusion	The project owner was identified through a communication agreement signed between project owner and project aggregator. Commissioning certificates and wheeling agreement were also verified and they clearly establish the project ownership. The identification and communication correctly meet the requirement of project verification and UCR project standard. Project owner: Gro Solar Energy Pvt Ltd.

Positive Social Impact

Means of Project Verification	Project has provided temporary employment to local people during its installation and commissioning. Also post commissioning some of people have employed permanently and local people were engaged leading to social financial benefit to surrounding. Overall social impact of project implementation is positive on the surrounding area
Findings	No findings raised.
Conclusion	Project has overall positive social impact

Sustainable development aspects (if any)

Means of Project Verification	PP has claimed SDG Goals 4,7, 8 & 13. SDG 4 is quality education. This Project activity promotes educational amenities that can directly and indirectly help students achieve quality or better education. Also Support under privileged with required training opportunities. This was verified by the submitted supporting documents and photographs. SDG 7 is affordable and clean energy and it is verified during remote audit as the project is solar power plant. SDG 8 is decent work and economic growth. This project activity generates additional employment in the operations and maintenance of the solar farm for the local people. This project achieves full and productive employment and decent work. PP has submitted local employment records for verification. SDG 13 is climate action. These claims were checked on the basis of supporting documents, JMR & invoice, employment of the local people on the project site and emission reduction calculations respectively.
Findings	No findings raised.
Conclusion	The project has the capability to address SDG 4, 7, 8 and 13.

Internal quality control

The verifier confirms that,

- Due professional care has been taken while reviewing the submitted document.
- There is no conflict of interest as the verifier has no other engagement with either the aggregatoror project owner directly or indirectly.
- Verification team consists of experienced personnel.

Project Verification opinion

Assessment team conducted documentation review the PCN against the UCR program verification standard version 2.0 and UCR project eligibility criteria version 7.0 and the UCR-PCN-FORM Version 1.0.
It is confirmed that the project activity is a 7 MW of small-scale solar power project located at Village Degaon, Taluka -Shindkheda District - Dhule, State – Maharashtra, India

The geo co-ordinates of the project activity have been mentioned in sections above. Assessment team performed a remote audit and confirmed that the location described in the PCN is accurate. The verification was performed on the basis of UCR requirements, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the PCN, MR and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The project correctly applies the approved baseline and monitoring methodology AMS-I.D., Grid connected renewable electricity generation, Version 18.0.

The monitoring plan provides for the monitoring of the project's emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the project design, and the project participants are able to implement the monitoring plan. Given that the project is implemented and maintained as designed, the project has achieved the emission reductions of 42,754 tCO2eq during the monitoring period i.e. from 25/06/2021 to 31/12/2024.
The review of the project design documentation and the subsequent follow-up interviews have provided assessment team with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all applicable UCR requirements. Assessment team thus requests the registration of the proposed UCR project activity.

Appendix 1. Abbreviations

Abbreviations	Full texts
AMS	Approved Methodology for Small-Scale CDM project activities
UCR	Universal Carbon Registry
PCN	Project Concept Note
MR	Monitoring Report
t	Tonnes
NGO	Non-Governmental Organization
ISO	International Organization for Standardization
CAR	Corrective Action Request
CL	Clarification Request
GHG	Greenhouse Gas
MWh	Megawatt Hours
CO_2	Carbon Dioxide
CH4	Methane
N2O	Nitrous Oxide

Appendix 2. Competence of team members and technical reviewers

❖ **Mr. Vijayanand** is an experienced professional, a strategic HSE expert with 16 years of leadership in environmental consulting, audit, and regulatory compliance. He has successfully implemented HSE/ESG rules across Asia and Europe, managing corporate and site-level HSE functions. His roles have involved EIA, waste management, and policy development. He is leading HSE and ESG efforts at Hero Future Energies, demonstrating budgeting, due diligence, and international standard implementation skills. He has contributed to impactful projects like ESIA, renewable energy initiatives, and audits. He is also having accreditation as a Lead Auditor in CDM and Verra by various DOEs/VVBs, he is qualified by Enviance as a TL, TR and Technical expert in Sector 1.2, 3.1, 14.1.

❖ **Ms. Ritu Singh** has done Masters in Environmental Science from Central University of South Bihar, Gaya and bachelor of Science in Zoology from Magadh Mahila College, Patna University, India. She has done Masters' research focused on solid waste management during and post covid-19 pandemic and conducted a survey in Medical Colleges of Bihar to study the trends of waste management. She has more than 2 year working experience in True Quality Certifications Pvt. Ltd. (An outsource entity for LGAI Technological Center, S.A. (Spain) "Applus+ Certification") and has been involved in supporting Audit teams for Validation and Verifications of Project Activities (Renewable and non-Renewable projects) under CDM/VCS/GS4GG/GCC programs. Currently, Ritu is engaged as an internal resource with Enviance Services Private Limited, where she is accredited as a Lead Auditor, Validator, Verifier, and Technical Expert for Sectoral Scope/Technical Area 1.2 by Enviance.

❖ **Ms. Swati Mahajan** is graduate in Environmental Engineering from Shivaji University, India and previously worked as an Environment Engineer at Eco Designs India Private Ltd., Pune. She is adept in designing of landfill sites for solid waste management. She also has hands on experience in cost benefit analysis and preparation of DPRs for SWM projects. She also has done a certified course in carbon capture and storage from Edinburg University. Currently working as GHG assessor for projects under various GHG mechanisms like GCC, ICR, UCR and VERRA.

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	NA	Communication agreement		Project Owner
2	NA	Project Concept Note		Aggregator
3	NA	Monitoring report		Aggregator
4	NA	Emission reduction sheet		Aggregator
5	NA	Declaration on avoidance of double counting		Aggregator
6	NA	Commissioning Certificates for the solar power plants		Aggregator
7	NA	Power Purchase Agreement		Aggregator
8	NA	Joint Meter Readings/invoices for the complete monitoring period		Aggregator
9	NA	Calibration certificates for energy meters		Aggregator
10	NA	Equipment purchase order		Aggregator
11	NA	Grid Emission factor recommended for Indian projects by UCR	Upto year 2023 - https://a23e347601d72166dcd6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRStandardAug2024updatedVer7_020824191534797526.pdf Year 2024 - https://medium.com/@UniversalCarbonRegistry/ucr-cou-standard-update-2024-vintage-ucr-indian-grid-emission-factor-announced-ddb790cdc603	General project eligibility criteria and guidance UCR standard version 7.0
12	UCR	UCR Program manual version 6.2 UCR COU standard version 7 UCR Verification standard version 2 UCR terms and conditions version 11.0, May 2025	https://www.ucarbonregistry.io/Document?projectCategoryId=1	Universal Carbon Registry
13	CDM	CDM approved methodology- AMS-I.D., Grid connected renewable electricity generation, Version 18.0.	AMS I.D.	UNFCCC

Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**01**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**MR**
Finding Description		**Date:**	**10/07/2025**
1. PP shall submit an undertaking for no double counting for current monitoring period and for project activity has neither been registered nor seeking registration under any other GHG programs. 2. PP shall submit the project establishment consent for the review.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has provided the documents for review			
Validation/Verification Team Assessment		**Date:**	**28/08/2028**
1. PP has submitted the no double counting certificate. During assessment it was observed that the project activity has neither been registered nor seeking registration under any other GHG programs for current monitoring period. 2. PP has submitted the project establishment consent. Hence, CL 01 is closed.			

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**02**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**MR**
Finding Description		**Date:**	**10/07/2025**
PP has claimed SDG 2 and 4 for the project activity. Supporting documents are to be provided for the same.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has updated the SDG goals accordingly and provided the supporting documents			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**
PP has submitted the supporting documents substantiating the mentioned SDG goals. Hence, CL 02 is closed.			

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**03**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**MR**
Finding Description		**Date:**	**10/07/2025**
PP shall submit the meter photographs of the project activity.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has submitted the photographs			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**
PP has submitted the meter photographs. During assessment it was verified that the meter serial numbers mentioned in MR are consistent with the meter photographs.			

Hence, CL 03 is closed.

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**04**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**MR**
Finding Description		**Date:**	**10/07/2025**
1. PP shall submit supporting documents of JMR readings of year 2024. 2. In excel sheet PP shall add a new sheet showing year wise calculations.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has provided the documents for review and updated the excel sheet accordingly			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**
1. PP has submitted supporting documents of JMR of year 2024. During assessment it was verified that all the values mentioned in ER excel sheet are consistent with the submitted JMR. 2. As suggested, in excel sheet PP has added a new sheet showing year wise calculations. Hence, CL 04 is closed.			

Table 2. CARs from this Project Verification

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**01**
Raised by:	**Ms. Ritu Singh**	**Document reference**	**MR**
Finding Description		**Date:**	**10/07/2025**
1. Scale of the project activity is inconsistent throughout the MR. Correction sought. 2. Version number of applied methodology is inconsistent in both PCN and MR. Correction sought.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has updated the PCN and MR accordingly			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**
1. Scale of the project activity is corrected. During verification scale of the project activity was found to be consistent throughout the monitoring report version 1.1. 2. Version number of applied methodology is now consistent in both MR and PCN and it was verified in MR version 1.1 and PCN version 1.1. Hence, CAR 01 is closed.			

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**02**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**PCN**
Finding Description		**Date:**	**10/07/2025**
The Sustainable Development Goals (SDGs) claimed as achieved by the project activity in the Monitoring Report are inconsistent with those outlined in the Project Concept Note (PCN). Correction sought.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP has updated the monitoring report accordingly			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**

During verification, it has been observed that the Sustainable Development Goals (SDGs) indicated as achieved in the Monitoring Report now align with those originally outlined in the Project Concept Note (PCN). The same has been verified in MR version 1.1 and PCN version 1.1. Hence, CAR 02 is closed.

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**03**
Raised by:	**Ms. Ritu Singh**	**Document Reference**	**PCN & MR**
Finding Description		**Date:**	**10/07/2025**
Under section C.10 of MR, Egy,net parameter is inconsistent. Corrective action sought.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/07/2025**
PP as updated the MR accordingly			
Validation/Verification Team Assessment		**Date:**	**28/08/2025**
PP has corrected the Egy,net parameter under section C.10 of MR. The same was verified in MR version 1.1. Hence, CAR 03 is closed.			

~~Table 3. FARs from this Project Verification~~

~~**FAR ID**~~	~~xx~~	~~**Section no.**~~		~~**Date:** DD/MM/YYYY~~
~~**Description of FAR**~~				
~~**Project Owner's response**~~				~~**Date:** DD/MM/YYYY~~
~~**Documentation provided by Project Owner**~~				
~~**UCR Project Verifier assessment**~~				~~**Date:** DD/MM/YYYY~~