Project Verification Report

2021

## **COVER PAGE Project Verification Report Form (VR)** BASIC INFORMATION **Enviance Services** Name of approved UCR Project Verifier / Reference No. **Private Limited** CDM or other GHG **Type of Accreditation** Accreditation 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 22/08/2025 9.62 MW Bundled Solar Title of the project activity Power Project by Panoli Intermediates (India) Pvt Ltd. in Gujarat, India **UCR 449** Project reference no. (as provided by UCR Program) Advait Greenergy Private Name of Entity requesting verification service Limited (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.) Contact details of the representative of the Entity, requesting verification Name: Ms. Avantika service Gupta (Focal Point assigned for all communications) Email ID avantika.gupta@advaitgr oup.co.in Country where project is located India AMS-I.D., Grid **Applied methodologies** connected renewable electricity (approved methodologies by UCR Standard used) generation, Version 18.0 GHG Sectoral scopes linked to the applied methodologies 01 Energy industries (Renewable/Non-Renewable Sources) □ UCR Standard **Project Verification Criteria:**

Applicable

Mandatory requirements to be assessed		Approved
Manualory requirements to be assessed		Methodology
		Applicable Legal requirements /rules of host country
	$\boxtimes$	Eligibility of the Project Type
	$\boxtimes$	Start date of the Project activity
		Meet applicability conditions in the applied methodology
	$\boxtimes$	Credible Baseline
		Do No Harm Test
		Emission Reduction calculations
	$\boxtimes$	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:		UCR Project Verifier ance Services
The UCR Project Verifier has verified the UCR project activity and therefore confirms the following:	Private the fito Active Bund Project Inter Ltd. Mass the Foreign O1/0 the appropriate AMS controlled the first the fito appropriate the	ate Limited, certifies ollowing with respect the UCR Project vity 9.62 MW dled Solar Power ect by Panolimediates (India) Pvt in Gujarat, India The Project Owner correctly described Project Activity in the ect Concept Note

ditions ed the mission es with nitoring d has mission timates and
tivity is e GHG uctions the tCO <sub>2e</sub> ated in h are the e likely nce of ty and all rules, 4064-2
tivity is se any the and/or
Activity all the rules¹ erefore UCR ter the with abels.

<sup>1</sup>https://a23e347601d72166dcd6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025 Ver11\_230525172325112351.pdf

Name of the authorised personnel of UCR Project Verifier and his/her signature with date

Vidhya Muralikrishna



Quality Manager Date: 22/08/2025

# PROJECT VERIFICATION REPORT

# **Executive summary**

The project activity is titled- "9.62 MW Bundled Solar Power Project by Panoli Intermediates (India) Pvt Ltd. in Gujarat, India". It is a solar-power Project which is spread across Vill – Rupnagar, Teh. – Sami, District – Patan, 384240, Vill – Sarod, Teh. – Jambusar, District – Bharuch, 392180, Vill – Kadachala, Teh. – Halol District – Panchmahal, 389350, State – Gujarat, India, India. The project activity aims to harness solar radiation, a renewable energy source, to generate electricity for captive consumption by the project proponent (PP), Ms. Panoli Intermediates (India) Pvt. Ltd. The project involves the installation and operation of a 9.62 MW<sub>AC</sub> solar power plant, distributed across multiple locations in Gujarat, India, with capacities of 3.75 MW in Patan, 4.07 MW in Bharuch, and 1.8 MW in Panchmahal to generate clean energy and reduce greenhouse gas (GHG) emissions.). This project comprises of solar panels spread across the different villages.

The solar project generates approximately 53,789.14 MWh of clean electricity in the current monitoring period. The net electricity generated from the project is wheeled to the manufacturing facility of the PP in Gujarat via the Indian grid (previously known as the NEWNE grid). The 1.8 MW capacity is associated with a wheeling agreement signed with Madhya Gujarat Vij Company Limited (MGVCL). The other two capacities, 3.75 MW and 4.07 MW, have separate wheeling agreements executed with Dakshin Gujarat Vij Company Limited (DGVCL). The 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 demandsupply gap in Gujarat and supporting the region's sustainable growth.

The first solar plant of capacity 3.75 MW $_{AC}$  under the project activity was commissioned on 15/06/2019 and the last solar plant of capacity 4.07 MW $_{AC}$  under the project activity was commissioned on 30/09/2022. 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 01/08/2019 onwards, i.e., crediting period for UCR starts from 01/08/2019. Hence, there is no double counting for said projects.

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

Project Developer	Capacity (MW <sub>AC</sub> )	Commissioning Date	Location	Status
M/s. Panoli Intermediates (India) Pvt. Ltd.	3.75	15-Jun-19	Village: Rupnagar Taluka: Sami District: Patan State: Gujarat Country: India	Operational
	4.07	30-Sep-22	Village: Sarod	Operational

		Taluka: Jambusar	
		District: Bharuch	
		State: Gujarat	
		Country: Índia	
		Village: Kadachala	
	09-Sep-22	Taluka: Halol	
1.8		District: Panchmahal	Operational
		State: Gujarat	
		Country: Índia	

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

<b>Project Proponent</b>	M/s. Panoli Inte	termediates (India) Pvt Ltd.				
<b>Project Capacity</b>	3.75	4.07	1.8			
(MW <sub>AC</sub> )						
District	Patan	Bharuch	Panchmahal			
Village	Rupnagar	Sarod	Kadachala			
Taluka	Sami	Jambusar	Halol			
State	Gujarat	Gujarat	Gujarat			
Country	India	India	India			
Pin Code	384240	392180	389350			
Latitude	23.65724° N	22.1614° N	22.39226° N			
Longitude	71.57923° E	72.74897° E	73.47468° E			
Survey Number	467   463P2	394   395	83   85   92   93   94			
-	-		96			

Proposed solar power project has evolved as a result of the policies of Government of India and Government of Gujarat, 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 generated electricity is wheeled from the Indian Grid to the Project Proponent for captive consumption. Addressing the energy demand-supply gap in Gujarat and supporting the region's sustainable growth. The wheeling agreement is signed between Madhya Gujarat Vij Company Limited (MGVCL), Dakshin Gujarat Vij Company Limited (DGVCL) and the PP for different solar plants. The project activity involves a Ground-Mounted Photovoltaic (PV) Solar Power Plant with a total installed capacity of 9.62 MW<sub>AC</sub>. 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 aggregated installed capacity of 9.62 MW. The plant was commissioned by the respective authority of government of Gujarat. 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 20%<sup>2</sup>. 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 9.62 MW power which wheeled back to the Project Proponent through the 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 7 and 13.

<sup>&</sup>lt;sup>2</sup> Normative Benchmark

The first crediting period of the project activity in UCR is 05 years, 05 months, 00 days in which total estimated electricity generation is 14,017.89 MWh and the total GHG emission reduction estimated is 10,800 tCO<sub>2</sub>e annually.

The electricity generation for the current monitoring period is 53,789.14 MWh and total GHG emission reduction is 46,116 tCO₂e.

#### **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 "9.62 MW Bundled Solar Power Project by Panoli Intermediates (India) Pvt Ltd. in Gujarat, India", the information and data presented in the MR version 1.2 dated 01/08/2025 is in line with the Project Concept Note Version 1.2 dated 01/08/2025 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	01/08/2019
End date of monitoring period	31/12/2024
Emission reductions achieved	46,116 tCO <sub>2</sub> eq

# Project Verification team, technical reviewer and approver

# **Project Verification team**

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

# Technical reviewer and approver of the Project Verification report

No.	Role	Type of	Last name	First name	Affiliation
		resource			(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**

		off-site		
	ction:	18/04/2025		
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	Vill – Rupnagar, Teh. – Sami, District – Patan, 384240 Vill – Sarod, Teh. –	18/04/2025
	b)	Verification of the project design, as documented is sound and reasonable, and meets the identified criteria of UCR Standard Requirements and associated guidance	Jambusar, District – Bharuch, 392180 Vill – Kadachala, Teh. – Halol District	
	c)	Assessment to conformance with the certification criteria as laid out in the UCR Standards;	– Panchmahal, 389350 State – Gujarat, India	
	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; Evaluation of the calculation of GHG emissions, including the correctness and transparency of formulae and factors used; assumptions related to estimating emission reductions; and uncertainties; and determination whether the project could reasonably be expected to achieve the estimated GHG reduction/removals. Review of information flows for generating, f) aggregating and reporting of the parameters to bemonitored To confirm that the operational and data g) collection procedures can be implemented in accordancewith the Monitoring Plan h) Cross-check of information provided in the submitted documents and data from other sources available at site 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

# **Interviews**

No.	Interview		Date	Subject	
	Last name	First name	Affiliation		
1.	Rathva	Aakash	Site Incharge –	18/04/2025	Project
			Halol Site		Implementation,
2.	-	MD Iqbal	Site Incharge –		Monitoring plan,
			Patan Site		Project Boundary,
3.	Patel	Yahiya	Site Incharge –		Eligibility criteria,
			Sarod Site		Host country
4.	Marathe	Dhruv	Advait Greenergy		requirements,
5.	Vyas	Anshul	Private Limited		Emission reduction
			=		calculations Project implementation,
6.	Gupta	Avantika			monitoring, Local
7.	_	Naging Bhai			stakeholder
7.	-	Naging Brian			consultation
8.	Rathva	Ketan			
			Local Stakeholders		
9.	Patel	Veshvik			
10.	Joshi	Harshad	=		
11.	Parmar	Narsinh	-		
' ' '	- Gilliai	110101111			

# 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	01	03	-					
Application and selection of methodologies and standardized baselines	-	-	-					
<ul> <li>Application of methodologies and standardized baselines</li> </ul>	-	-	-					
<ul> <li>Deviation from methodology and/or methodological tool</li> </ul>	-	-	-					
<ul> <li>Clarification on applicability of methodology, tool and/or standardized baseline</li> </ul>	01	01	-					
<ul> <li>Project boundary, sources and GHGs</li> </ul>	-	-	-					
- Baseline scenario	-	-	-					
<ul> <li>Estimation of emission reductions or net anthropogenic removals</li> </ul>	01	-	-					
- Monitoring Report	-	02	-					
Start date, crediting period and duration	02	-	-					
Environmental impacts	-	-	-					

Project Owner- Identification and communication	-	-	-
Others (please specify)	-	-	-
Total	05	06	-

# **Project Verification findings**

# Identification and eligibility of project type

Means of Project Verification	The project has an installation of a 9.62 MW (3.75 MW, 4.07 MW, and 1.8 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 Conclusion	No findings raised.  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** 

### **Means of Project Verification**

The project activity involves the operation of a 9.62 MW (3.75 MW, 4.07 MW, and 1.8 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 wheeling agreement confirms the companies/entities involved in the agreement for captive use of electricity from the 9.62 MW (Vill – Rupnagar, Teh. – Sami, District – Patan, 384240, Vill – Sarod, Teh. – Jambusar, District – Bharuch, 392180, Vill – Kadachala, Teh. – Halol, District Panchmahal, 389350, State – Gujarat, 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 Vill – Rupnagar, Teh. – Sami, District – Patan, 384240, Vill – Sarod, Teh. – Jambusar, District – Bharuch, 392180, Vill – Kadachala, Teh. – Halol, District Panchmahal, 389350, State – Gujarat, India. The approximate geo-coordinates of the project locations are mentioned below.

#### Details of Latitude &Longitude for the project site: -

Project	M/s. Panoli Intermediates (India) Pvt Ltd.				
Proponent					
Project	3.75	3.75 4.07 1.8			
Capacity					
(MW <sub>AC</sub> )					
District	Patan	Bharuch	Panchmahal		
Village	Rupnagar	Sarod	Kadachala		
Taluka	Sami	Jambusar	Halol		
State	Gujarat	Gujarat	Gujarat		
Country	India	India	India		
Pin Code	384240	392180	389350		
Latitude	23.65724° N	22.1614° N	22.39226° N		
Longitude	71.57923° E	72.74897° E	73.47468° E		
Survey	467	394   395	83   85   92   93		
Number	463P2		94   96		

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.			
Findings	CL 01, CAR 02, CAR 03 and CAR 04 were raised and closed successfully. More information presented in the appendix below.			
Conclusion	The description of the project activity is verified to be true based on the review of PCN, MR, Commissioning Certificate and power purchase agreement.			

# 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	No findings raised.
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	CL 05 and CAR 01 were raised and closed successfully. More information presented in the appendix below.
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. 1.2 and MR Ver.1.2. 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 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<sub>2</sub> 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;

 $BE_v$  = 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<sub>2</sub> emission factor (tCO<sub>2</sub>/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<sub>2</sub>/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.<sup>3</sup>

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,  $LE_y = 0$ .

<sup>3</sup> https://a23e347601d72166dcd6-

 $16 da 518 ed 3035 d35 cf 0439 f1 cdf 449 c9. ssl. cf 2. rackcdn. com//Documents/UCRS tandard Aug 2024 updated Ver 7\_020824191534797526. pdf$ 

#### **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 15/06/2019 when the first solar plant was commissioned and the last commissioning date is 30/09/2022. The start date of the crediting period under UCR is considered from 01/08/2019.

For the ease of the calculation, duration of the crediting period in UCR is started from 01/08/2019 to 31/12/2024.

The estimated emission reductions are 10,800 CoUs/yr (10,800 tCO2eg/yr)

Year	Generation			Leakage Emissions	Emission Reductions
	(MWh)	(tCO <sub>2</sub> e)	(tCO <sub>2</sub> e)	(tCO <sub>2</sub> e)	(tCO₂e)
2019	2,754.00	2,478	0	0	2,478
2020	6,570.00	5,913	0	0	5,913
2021	6,570.00	5,913	0	0	5,913
2022	8,386.85	7,548	0	0	7,548
2023	15,376.80	13,839	0	0	13,839
2024	16,854.24	12,758	0	0	12,758
2025	16,854.24	12,758	0	0	12,758
2026	16,854.24	12,758	0	0	12,758
2027	16,854.24	12,758	0	0	12,758
2028	16,854.24	12,758	0	0	12,758

The actual emission reduction achieved during the first CoU's period (01/08/2019 to 31/12/2024) as per the Project Activity:

# Actual Total baseline emission reductions (BEy)= 46,116 CoUs (46,116 tCO2eq)

	(tCO <sub>2</sub> e)	(tCO <sub>2</sub> e)	(tCO <sub>2</sub> e)	(tCO <sub>2</sub> e)
Year	Baseline	Project	Leakage	Emission
	Emissions	Emissions	<b>Emissions</b>	Reduction
2019	1,863	0	0	1,863
2020	5,622	0	0	5,622
2021	5,884	0	0	5,884

		2022	6,845	0	0	6,845
		2023	13,944	0	0	13,944
		2024	11,958	0	0	11,958
		Total	46,116	0	0	46,116
Findings		L 04 was ra elow.	aised and clos	sed successful	ly. More inforn	nation presented in the appendix
Conclusion	P g	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.				
	l It	(a) All a docu and used the appl docu leaks	assumptions umentation us source of data in the PCN i proposed UG icable, the stauments have age GHG ernates of the burners the burners of the burners in the stauments of the burners in the suments of the burners in the suments of the burners of the burners of the burners of the burners of the suments of the burners of the burners of the suments of the burners of the suments of	ed by the pro a is correctly q including GWF CR project a indardized bas been applied missions, as	mating GHG ject participan uoted and inter sare consider ctivity; (d) The lines and the correctly to well as GHC emissions can	are listed in the PCN; (b) All its as the basis for assumptions expreted in the PCN (c) All values ared reasonable in the context of the methodologies and, where the other methodological regulatory calculate baseline, project and a emission reductions; (e) All the be replicated using the data and

(.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 tCO2/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 <sub>PJ,y</sub>	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:**

The electricity generation is monitored directly through energy meters installed by GETCO. The generation data is recorded, maintained, and periodically revised by GETCO based on their own meter readings and calibration processes.

Capacity (MW <sub>AC</sub> )	4.07	3.75	1.8
Main Meter	DG0225B	GJ4290B	MJ0209B
Check Meter	DG0226B	GJ7887B	MG0210B
ABT Main Meter	GJ6208B	UPA004B	GJ7386B
ABT Check Meter	GJ6209B	UPT061B	GJ7387B

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 wheeled

	for captive consumption.	
	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 t verification team through document review and interviews with the project participant. T project participant would train all the monitoring staffs are trained against with relative requirement; the training guidelines and monitoring manual are saved and verified.	
	The monitoring plan outlines in the PCN includes:	
	<ul> <li>Monitoring Organization</li> <li>Monitoring apparatus and installation</li> <li>Calibration</li> <li>Data collection</li> <li>Data Management system</li> </ul>	
	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 05 and CAR 06 were 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	CL 02 and CL 03 raised and closed successfully. More information			
	presented in the appendix below.			
Conclusion	The project has chosen crediting period start date in UCR as			
	01/08/2019. The crediting period is chosen as 01/08/2019 to			
	31/12/2024 and the crediting period for the current monitoring period is			
	01/08/2019 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: M/s. Panoli Intermediates (India) 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 7& 13.  SDG 7 is affordable and clean energy and it is verified during remote audit as the project is solar power plant.  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 7 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 9.62 MW of small-scale solar power project located at Vill – Rupnagar, Teh. – Sami, District – Patan, 384240, Vill – Sarod, Teh. – Jambusar, District – Bharuch, 392180, Vill – Kadachala, Teh. – Halol District – Panchmahal, 389350, State – Gujarat, 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 46,116 tCO2eq during the monitoring period i.e. from 01/08/2019 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 <sub>2</sub>	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.
- ♣ Mr. Vipul Jain holds Bachelor of Technology from VIT University Vellore in 2020. He has gained valuable work experience as a site engineer at Light House Energy Developers, where he was employed from May 2020 to August 2022. Vipul holds an IRCA certification as an ISO 9001 Lead Auditor, demonstrating his expertise in quality management systems. He is well-versed in ISO 14064-1, ISO 14064-2, and ISO 14064-3, which are standards for greenhouse gas accounting and reporting. Furthermore, Vipul has received training in ISO 17029 and ISO 14065, highlighting his proficiency in environmental auditing and conformity assessment. He has also completed Clean Fuel Regulation training from Environment and Climate Change Canada, demonstrating his expertise in environmental management and sustainability.
- ❖ 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.
- ❖ Mr. Prakhar Shastri has done Bachelor of Technology in Electronic Communication Engineering from Medicaps University, Indore. Currently, He is working in Enviance Services

Private Limited and has been involved in supporting Audit teams for Verifications of Project Activities (Renewable and non-Renewable projects) under various registries like GCC.

# 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 doublecounting		Aggregator
6	NA	Commissioning Certificates for the solar power plants		Aggregator
7	NA	Wheeling 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	Upto year 2023 -	General
		projects by UCR	https://a23e347601d7216	project
			6dcd6-	eligibility
			16da518ed3035d35cf043	criteria and
			9f1cdf449c9.ssl.cf2.rackc	guidance
			dn.com//Documents/UCR	UCR
			StandardAug2024updated	standard version 7.0
			Ver7 0208241915347975	version 7.0
			<u>26.pdf</u>	
			Year 2024 -	
			https://medium.com/@Uni	
			versalCarbonRegistry/ucr-	
			cou-standard-update-	
			2024-vintage-ucr-indian-	
			grid-emission-factor-	
			announced-	
40	HOD	HODD	<u>ddb790cdc603</u>	1.1
12	UCR	UCR Program manual version 6.2	https://www.ucarbonregist	Universal Carbon
		UCR COU standard version 7	ry.io/Document?projectCa tegoryId=1	Carbon Registry
		UCR Verification standard version 2	tegoryid-1	Registry
		UCR terms and conditions version 11.0, May 2025		
13	CDM	CDM approved methodology- AMS-I.D., Grid	AMS I.D.	UNFCCC
		connected renewable electricity generation,		
		Version 18.0.		

# Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

Classi	fication	☐ CAR	⊠ CL/CR	☐ FAR	Number:	01	
Raised	d by: Ms. Ritu Singh				Document Reference	PCN	
Findin	Finding Description Date: 10/06/2025						
	Section A –  1. Purpose of the Project Activity - As the project activity is a bundled solar project with a total installed capacity of 9.62 MW. So, the PP to provide detailed and specific information regarding the individual capacity of plant included within the bundle.						
2.	2. Wheeling Agreement details - As the project activity is a bundled solar project, the PP shall provide separate and clearly defined information on the signed entities of the wheeling agreements corresponding to each individual project activity, based on their respective MW capacities. Furthermore, inconsistencies have been identified in the information provided regarding the signed entities. The PP shall review, rectify, and provide the details separately and accurately for each component of the bundle.						
3.	In section	on A.4 of the P	CN, PP to include	the meter of	letails and substation o	details.	
		=	oject Proponent R	-	Date:	03/07/2025	
1.		acities of indiv in the PCN.	idual plants for the	9.62 MW I	oundled solar project h	ave been specified and	
2.			ent details corresp been updated and	•		ased on their respective	
3	3. The meter details have also been included in Section A.4 of the PCN.						
٥.	THE IIIE	ter details nave	e also been include	ed in Sectio	n A.4 of the PCN.		
Valida	tion/Veri	fication Team	Assessment		Date:	18/07/2025	
Valida	tion/Veri	fication Team	Assessment	CN to inclu	Date: de the details of each	18/07/2025 individual plant for the	
Valida	PP has 9.62 MV Entity d capacity	revised the set bundled sola etails have be specified in the	Assessment ection A.1 of the Par. Hence this part een provided, but ne Wheeling Agree	CN to inclu of the comr the capacit ement for th	Date:  Ide the details of each nent is closed.  y stated in the PCN of bundles located in R		
Valida 1. 2.	PP has 9.62 MV Entity d capacity is reque open. PP has reports	revised the set of bundled solar trails have been specified in the sted to provide furnished met for meters bear	Assessment ection A.1 of the Par. Hence this part een provided, but he Wheeling Agree e clarification regarder details in Section	PCN to include of the capacite the capacite ment for the rding this depth on A.4 and the ears GJ7887	Date:  Ide the details of each ment is closed.  If y stated in the PCN is the bundles located in Rescrepancy. Hence this submitted the meter to B, UPA004B, and UP	does not align with the upnagar and Sarod. PP	
Valida 1. 2. 3.	PP has 9.62 MV Entity d capacity is reque open. PP has reports the subr	revised the set of the	Assessment ection A.1 of the Par. Hence this part een provided, but ne Wheeling Agree e clarification rega er details in Section	PCN to incluof the capacitement for the rding this don A.4 and ers GJ7887	Date:  Ide the details of each ment is closed.  If y stated in the PCN is the bundles located in Rescrepancy. Hence this submitted the meter to B, UPA004B, and UP	individual plant for the does not align with the upnagar and Sarod. PPs part of the comment is est report; however, the	
1. 2. 3.	PP has 9.62 MV Entity d capacity is reque open. PP has reports the subt	revised the set of the	Assessment ection A.1 of the Par. Hence this part een provided, but ne Wheeling Agree e clarification rega er details in Section aring serial number	PCN to incluof the capacitement for the rding this don A.4 and ers GJ7887	Date:  Ide the details of each nent is closed.  If y stated in the PCN of the bundles located in Reserved in the state of the bundles located in Reserved in the state of the bundles is the bundles of t	does not align with the upnagar and Sarod. PP part of the comment is est report; however, the T061B are absent from	
Valida 1. 2. 3.	PP has 9.62 MV Entity d capacity is reque open. PP has reports the substitute of the	revised the set of bundled solar trails have been been been been been been been be	Assessment ection A.1 of the Par. Hence this part een provided, but the Wheeling Agree e clarification regal er details in Section ering serial number ents. Hence this part orted Wheeling Agree s, but rather result capacities mention everters and the ration	CN to include of the capacity	Date:  Ide the details of each ment is closed.  If y stated in the PCN is the bundles located in Rescrepancy. Hence this submitted the meter to B, UPA004B, and UP mment is open.  Date:	does not align with the upnagar and Sarod. PP part of the comment is est report; however, the T061B are absent from 01/08/2025  difficate do not represent freferencing DC ts are in line with the ction letters. The	

all the meter test reports were not available.

Validation/Verification Team Assessment	Date:	21/08/2025
1 Closed		

- 2. The observed differences between the Wheeling Agreement and the Commissioning Certificate do not constitute discrepancies or errors. These variations stem from standard industry practice, wherein DC capacities are referenced in certain contractual and commissioning contexts. The MWAC capacities cited in the Project Commissioning Note (PCN) and Monthly Report (MR) documents are consistent with the installed inverter configuration and their respective ratings. This alignment is further substantiated by the technical inspection letters issued during site verification. Specifically, the MWAC capacity has been derived as the product of the total number of inverters and their individual rated output, which precisely corresponds to the reported figures. This methodology adheres to accepted engineering norms and ensures transparency in capacity reporting across documentation.
- 3. PP has submitted declaration for installed meter and calibration as meter test report were not available for all meter. The declaration declares that the meters are tested and reflect actual electricity generated during the entire crediting period. Hence this part of the comment is closed.

Classification	☐ CAR	⊠ CL/CR	☐ FAR	Number:	02
Raised by:	Ms. Ritu Si	ngh		Document Reference	PCN & MR
Finding Description			Date:	10/06/2025	

- 1. Inconsistencies have been identified in the mentioned start date, crediting period and monitoring period during the review. Therefore, PP to review and make all the dates consistent in PCN and MR.
- 2. Monitoring period is inconsistent in PCN and MR. Therefore, PP shall check and align the monitoring period in both PCN and MR and ensure it is clearly and consistently presented across all project documentation.
- 3. In Data and Parameters available (ex-ante values), In PCN, the ex-ante parameters section does not include the combined margin (CM) value as per the CEA database. Additionally, the Monitoring report does not reflect the UCR recommended emission factor in accordance with the UCR Standard. Therefore, PP to clarify.
- 4. PP shall provide the generation records for the given Monitoring period.
- 5. In Data and Parameters to be monitored (ex-post monitoring values), As this is bundled solar project, The PP shall include the meter details (like serial number, installation, calibration details of all energy meter) along with the latest calibration records for each plant in both documents (PCN and MR).
- 6. PP to include the details of SDGs.

#### Client/Responsible Party/Project Proponent Response 03/07/2025 Date:

- 1. The project dates (Commissioning Date, Crediting Period, and Monitoring Period) have been made consistent across PCN and MR.
- 2. The monitoring period is in accordance to the generation data available and have been made consistent.
- 3. In the ex-ante parameters, the Combined Margin (CM) value has been taken in accordance with the UCR standard and incorporated in the PCN and MR has been updated as per UCR standard and CEA database value for the post-2020 period.
- The generation records for the monitoring period have been included with the signed declaration

affirming that the values mentioned in excel sheet are accurate; has been submitted.

- 5. The meter details have been revised in both PCN and MR.
- 6. The SDG contributions have been updated accordingly.

## Validation/Verification Team Assessment

Date:

18/07/2025

- 1. PP has corrected the inconsistencies related to the start date, monitoring period and crediting period in both PCN and MR. Hence this part of the comment is closed.
- 2. The monitoring period for this project activity, spanning from 01/08/2019 to 31/12/2024, is now accurately reflected in both the PCN and the MR. this part of the comment is closed.
- 3. In Data and Parameters available (ex-ante values), In PCN, the ex-ante parameters section does not include the combined margin (CM) value as per the CEA database. As per the UCR medium document <a href="https://medium.com/@UniversalCarbonRegistry/ucr-cou-standard-update-2024-vintage-ucr-indian-grid-emission-factor-announced-ddb790cdc603">https://medium.com/@UniversalCarbonRegistry/ucr-cou-standard-update-2024-vintage-ucr-indian-grid-emission-factor-announced-ddb790cdc603</a> the UCR recommends an emission factor of 0.9 tCO<sub>2</sub>/MWh for post 2023 years. PP is requested to review and revise the factor accordingly. As a result of this correction, the calculations for the years 2021, 2022, and 2023 will require adjustment. This part of the comment is open.
- 4. PP has submitted a signed declaration affirming the accuracy of the values reported in the ER sheet. Accordingly, this part of the comment is closed.
- 5. PP has revised the details of the meters and the generation is monitored directly through the meters installed by GETCO. The generation data is recorded, maintained, and periodically revised by GETCO based on their own meter readings and calibration processes. Also submitted declaration that declares accuracy of the generation values and calibration of the meters. Hence this part of the comment is closed.
- 6. In section B.2 of MR and section A.2 of PCN, PP shall add details of SDG goals achieved by this project activity. PP shall also submit the supporting documents for the same.

# Client/Responsible Party/Project Proponent Response

Date:

01/08/2025

- 1. Closed.
- 2. Closed.
- 3. In this project activity, the emission factor is determined in two distinct phases. For the period year up to 2023, a grid emission factor of 0.9 tCO<sub>2</sub>/MWh is applied and for the year 2024, a grid emission factor of 0.757 tCO<sub>2</sub>/MWh in accordance with the updated UCR guidelines and are updated in the PCN and MR and hence the mentioned changes have been incorporated.
- 4. Closed.
- 5. Closed.
- 6. The mentioned SDG table and the changes have been incorporated in the PCN and MR with supportive generation and ER sheet submitted.

### Validation/Verification Team Assessment

Date:

21/08/2025

- 1. Closed.
- 2. Closed.
- 3. The project proponent has revised the emission factor values in alignment with the updated UCR guidelines. An emission factor of 0.9 tCO<sub>2</sub>/MWh has been applied for all years up to 2023, while a factor of 0.757 tCO<sub>2</sub>/MWh has been adopted for 2024. Accordingly, this portion of the comment is considered resolved.

4.	Closed.										
5.	Closed.										
6.		incorporated the t note. Hence th		•	ection of Monitoring resed.	port and Project					
Classif	ication	☐ CAR	⊠ CL/CR	☐ FAR	Number:	03					
Raised	Raised by: Ms. Ritu Singh Document Reference										
Finding Description Date: 10/06/2025											
First issuance period and the monitoring period dates are inconsistent with the PCN. Therefore, PP to check and make it consistent throughout the report.											
		sible Party/Proj			Date:	03/07/2025					
The mo	nitoring p	period and first i	ssuance period	have been re	evised and made cons	istent in the PCN.					
		fication Team A			Date:	18/07/2025					
PP has	updated	the monitoring	period dates, w	hich are now	consistent. Hence CL	is closed.					
					1						
Classif	ication		⊠ CL/CR	☐ FAR	Number:	04					
Raised	by:	Ms. Ritu Singl	1		Document Reference	MR					
Finding	g Descri	ption			Date:	10/06/2025					
		e, the values of the ER Sheet.				this monitoring period is					
		sible Party/Proj			Date:	03/07/2025					
	ues of es ide consi		of GHG emiss	ion reduction	for this monitoring per	iod have been revised					
		fication Team A			Date:	18/07/2025					
		d the values of t mentioned in the			ction for this monitoring	g to make it consistent					
Classif	ication	CAR	⊠ CL/CR	FAR	Number:	MR					
Raised		Ms. Ritu Singl	1		Document Reference	05					
Finding	g Descri <sub>l</sub>	ption			Date:	10/06/2025					
In section A.1-  1. Wheeling Agreement details - As the project activity is a bundled solar project, the PP shall provide separate and clearly defined information on the signed entities of the wheeling agreements corresponding to each individual project activity, based on their respective MW capacities. Furthermore, inconsistencies have been identified in the information provided regarding the signed entities. The PP shall review, rectify, and provide the details separately and accurately for each component of the bundle.											
2.	<ol><li>The actual GHG emission reduction is inconsistent with the provided ER Sheet. PP to check throughout the MR and revise accordingly.</li></ol>										
Client/l	Client/Responsible Party/Project Proponent Response Date: 03/07/2025										

- 1. The wheeling agreements have been provided separately for each plant as per their MW capacities.
- The actual GHG emission reduction values in the MR have been revised to align with the ER Sheet.

#### Validation/Verification Team Assessment

Date:

18/07/2025

- 1. Entity details have been provided, but the capacity stated in the PCN and MR does not align with the capacity specified in the Wheeling Agreement for the bundles located in Rupnagar and Sarod. PP is requested to provide clarification regarding this discrepancy. Hence this part of the comment is open.
- 2. PP has revised the ER values and made it consistent with the ER sheet. This part of the comment is closed.

# Client/Responsible Party/Project Proponent Response

Date:

01/08/2025

- The differences in reported Wheeling Agreement and Commissioning Certificate do not represent discrepancies or errors, but rather result from standard industry practice of referencing DC capacities. The MW<sub>AC</sub> capacities mentioned in the PCN and MR documents are in line with the installed number of inverters and the ratings, supported by technical inspection letters. The product of the number of inverters and their individual ratings exactly matches the reported MW<sub>AC</sub> capacity.
- 2. Closed.

#### Validation/Verification Team Assessment

Date:

21/08/2025

- 1. The observed differences between the Wheeling Agreement and the Commissioning Certificate do not constitute discrepancies or errors. These variations stem from standard industry practice, wherein DC capacities are referenced in certain contractual and commissioning contexts. The MWAC capacities cited in the Project Commissioning Note (PCN) and Monthly Report (MR) documents are consistent with the installed inverter configuration and their respective ratings. This alignment is further substantiated by the technical inspection letters issued during site verification. Specifically, the MWAC capacity has been derived as the product of the total number of inverters and their individual rated output, which precisely corresponds to the reported figures. This methodology adheres to accepted engineering norms and ensures transparency in capacity reporting across documentation.
- 2. Closed. Hence, this part of CL is closed.

#### Table 2. CARs from this Project Verification

Classification	⊠ CAR	CL/CR	☐ FAR	Number:	01
Raised by:	Ms. Ritu Sin	gh		Document Reference	PCN
Finding Descri	ption		Date:	10/06/2025	

#### Section A -

- 1. Inconsistencies have been observed in the project capacity (3.74 MW or 3.75 MW) throughout the MR. So, the PP to check with the supporting documents and revise accordingly.
- 2. During the review of PCN, inconsistencies were noted in the commissioning date of 1.8 MW capacity plant. Therefore, PP to verify the commissioning date against supporting documents and update accordingly.

3. The PP shall verify the provided geo-coordinates in Section A.3 of the PCN and revise them to ensure accuracy. Additionally, geo-tagged photographs shall be included to support and clarify the project location details.

## Client/Responsible Party/Project Proponent Response Date: 03/07/2025

- 1. The project capacity has been revised consistently as 3.75 MW with supportive commissioning certificate.
- 2. The commissioning date for the 1.8 MW plant has been updated as per supported document. The geo-coordinates have been added and geo-tagged photographs have been included to support project locations.

#### Validation/Verification Team Assessment Date: 18/07/2025

- Capacity of bundle in Rupnagar and bundle in Sarod is found inconsistent with commissioning certificate and wheeling agreement. PP to review and revise to make it consistent with the submitted document. This part of the comment is open.
- 2. PP has updated the commissioning date of the 1.8 MW plant as per the supporting document. Hence this comment is closed.
- 3. PP has provided the geo-coordinates along with geo-tagged photographs of the plants, and the coordinates have been found to be consistent. Hence this part of the comment is closed.

# Client/Responsible Party/Project Proponent Date: 01/08/2025 Response

- The differences in reported Wheeling Agreement and Commissioning Certificate do not represent discrepancies or errors, but rather result from standard industry practice of referencing DC capacities. The MW<sub>AC</sub> capacities mentioned in the PCN and MR documents are in line with the installed number of inverters and the ratings, supported by technical inspection letters. The product of the number of inverters and their individual ratings exactly matches the reported MW<sub>AC</sub> capacity.
- 2. Closed.
- 3. Closed.

# Validation/Verification Team Assessment Date: 21/08/2025

- 1. The observed differences between the Wheeling Agreement and the Commissioning Certificate do not constitute discrepancies or errors. These variations stem from standard industry practice, wherein DC capacities are referenced in certain contractual and commissioning contexts. The MWAC capacities cited in the Project Commissioning Note (PCN) and Monthly Report (MR) documents are consistent with the installed inverter configuration and their respective ratings. This alignment is further substantiated by the technical inspection letters issued during site verification. Specifically, the MWAC capacity has been derived as the product of the total number of inverters and their individual rated output, which precisely corresponds to the reported figures. This methodology adheres to accepted engineering norms and ensures transparency in capacity reporting across documentation.
- 2. PP has updated the commissioning date of the 1.8 MW plant as per the supporting document. Hence this comment is closed.
- 3. PP has provided the geo-coordinates along with geo-tagged photographs of the plants, and the coordinates have been found to be consistent. Hence this part of the comment is closed.

Hence, this part of CAR is closed.

Classification	⊠ CAR	☐ CL/CR	☐ FAR	Number:	02
Raised by:	Ms. Ritu Sin	gh		Document Reference	PCN & MR
Finding Descri	ption			Date:	10/06/2025

Section A.4 – Technical Description of the Project Activity – The information provided in section A.4 is insufficient for a bundled solar project. The PP to address the following issues:

- Plant Capacities and Commissiong Dates The capacities and commissioning dates for each individual plant needs to be provided clearly and consistently throughout the PCN. Currently, inconsistencies (3.75 MW) are observed between section A.1 and section A.4. So, the PP shall revise and update accordingly.
- 2. Missing Technical Details for the 1.8 MW Plant Complete technical specification for the third plant (1.8 MW) are missing. Therefore, PP shall provide the complete details.
- 3. Single Line Diagram (SLD) PP shall submit a single line diagram representing the electrical configuration of the entire bundled project.
- 4. The PP shall submit an updated and include technical specification details covering all relevant system components for each of the three bundled plants.
- 5. PP to include the lifetime of the project activity.

Revise the section in PCN and MR accordingly.

Client/Responsible Party/Project Proponent Response Date: 03/07/2025

The technical description in PCN and MR has been revised with:

- 1. The project capacity and commissioning dates has been revised and made consistent.
- 2. The technical specifications for the 1.8 MW plant have been updated.
- 3. The project proponent currently does not have a Single Line Diagram (SLD) representing the configuration of the project.
- 4. The technical specification for all three projects has been included.
- 5. The lifetime of the project activity is mentioned as per the wheeling agreement.

#### Validation/Verification Team Assessment

Date:

18/07/2025

- Capacity of bundle in Rupnagar and bundle in Sarod is found inconsistent with commissioning certificate and wheeling agreement. PP to review and revise to make it consistent with the submitted document. This part of the comment is open.
- 2. PP has added the technical details for the 1.8 MW plant and it is found consistent with the supporting document.
- 3. PP to submit a single line diagram representing the electrical configuration of the entire bundled project if available now as it is required. This part of the comment is still open.
- 4. PP has provided technical specification for all three plants in PCN and MR. Closed
- **5.** PP has provided the lifetime of the project activity (20 years) which was verified by the wheeling agreement. Closed.

Client/Responsible Party/Project Proponent Date: 01/08/2025 Response

1. The differences in reported Wheeling Agreement and Commissioning Certificate do not represent discrepancies or errors, but rather result from standard industry practice of referencing DC capacities. The MW<sub>AC</sub> capacities mentioned in the PCN and MR documents are in line with the installed number of inverters and the ratings, supported by technical inspection letters. The product of the number of inverters and their individual ratings exactly matches the reported

MW<sub>AC</sub> capacity.

- 2. Closed.
- 3. The SLD file for individual project sites has been submitted.
- 4. Closed.
- Closed.

Valid	lation	/Verif	icatio	on T	eam A	Asse	ess	men		Date			21	/08	/20	25		
		-					-					_				_	 	

- 1. The observed differences between the Wheeling Agreement and the Commissioning Certificate do not constitute discrepancies or errors. These variations stem from standard industry practice, wherein DC capacities are referenced in certain contractual and commissioning contexts. The MWAC capacities cited in the Project Commissioning Note (PCN) and Monthly Report (MR) documents are consistent with the installed inverter configuration and their respective ratings. This alignment is further substantiated by the technical inspection letters issued during site verification. Specifically, the MWAC capacity has been derived as the product of the total number of inverters and their individual rated output, which precisely corresponds to the reported figures. This methodology adheres to accepted engineering norms and ensures transparency in capacity reporting across documentation.
- 2. Closed.
- 3. PP has submitted single line diagram for individual project sites and diagram found accurate and correct by the assessment team. Hence this part of the comment is closed.
- 4. Closed.
- 5. Closed.

Hence, this part of CAR is closed.

Classification	⊠ CAR	☐ CL/CR	☐ FAR	Number:	03
Raised by:	Ms. Ritu Si	ngh		Document Reference	PCN
Finding Descri	ption		Date:	10/06/2025	

- 1. In Double Counting Document, PP shall correct the name of registry mentioned in the double counting document. The correct registry name is "UCR not 'UCE". Therefore, PP shall review the document and revise accordingly.
- 2. In section B.4 is inconsistent with PCN Template version 1.0. Therefore, PP to check and revise accordingly.
- 3. In section B.5 of PCN, PP shall include a detailed step-wise calculation of emission reduction, clearly presenting the values used for baseline emission, project emission and leakage emission. Additionally, an annual breakdown of emission reduction for the entire period shall be provided.
- 4. In Excel sheet titled "ERR\_UCR01-9.62 PIPL SOLAR", where the PLF Value has been came from. Therefore, PP shall provide supporting documents or justification for the PLF value used in the calculations.

#### Client/Responsible Party/Project Proponent Response Date: 03/07/2025

- 1. The registry name in the Double Counting Document has been corrected from "UCE" to "UCR".
- 2. The section B.4 has been aligned with PCN Template version 1.0.
- 3. A calculation of baseline, project, and leakage emissions, along with annual emission reduction table has been included in Section B.5.

4.	The PLI	F value used in t	he estimation ER	sheet is a	is per assun	nption for t	the solar projects.			
Valida	tion/Veri	fication Team A	ssessment		Date:		18/07/2025			
1.	<ol> <li>PP has corrected the registry name in the Declaration of No Double Counting, and the assessment team has verified it to be correct.</li> </ol>									
2.	PP has	revised the secti	ion B.4 of the PC	N as per t	ne PCN tem	plate vers	ion 1.0. Closed.			
3.	3. PP has updated Section B.5 of the PCN to include a step-wise calculation of emission reductions, along with an annual breakdown covering the entire period. The section now clearly presents value of baseline emission, project emissions and leakage emissions.									
4.	PP is re	quested to subm	nit the source of tl	he PLF. T	nis part of th	e commer	nt is open.			
Client/ Respo	-	sible Party/Proje	ect Proponent	Date:	01/08/202	<u>!</u> 5				
1.	Closed.									
2.	Closed.									
3.	Closed.									
4.										
Valida	tion/Veri	fication Team A	ssessment	[	ate:		21/08/2025			
1.	Closed.			·						
2.	Closed									
3.	Closed.									
4.		submitted the sort rt of the commer		and sourc	e found cons	sistent by t	the assessment team.			
Classi	fication	⊠ CAR	☐ CL/CR	FAR	Number	r:	04			
Raised	d by:	Ms. Ritu Singh	1		Docume		MR			
Findin	g Descri	ption			Date:		10/06/2025			
1.			en observed in the				3.75 MW) throughout ccordingly.			
2.			, PP to verify the provide the geota							
3.	3. In section A.6 of the MR, PP to provide the supporting evidence for the responsible persons or entities.									
4.										
Client/	-		ect Proponent R	-	Date:		03/07/2025			
1.	The cap	pacity value has	been made consi	stent with	supporting o	locumenta	ation.			
2.	The ged	o-coordinates ha	ve been revised a	and the ge	o-tagged im	ages are	added.			

- 3. The supporting document for responsible entities; UCR Communications Agreement has been submitted.
- 4. The commissioning date of the 1.8 MW plant has been revised as per supporting commissioning certificate.

#### **Validation/Verification Team Assessment**

Date:

18/07/2025

- Capacity of bundle in Rupnagar and bundle in Sarod is found inconsistent with commissioning certificate and wheeling agreement. PP to review and revise to make it consistent with the submitted document. This part of the comment is open.
- 2. PP has provided the geo-coordinates along with geo-tagged photographs of the plants, and the coordinates have been found to be consistent. Hence this part of the comment is closed.
- 3. PP has submitted the UCR Communication Agreement pertaining to the responsible parties, and the details outlined in the MR have been found consistent with the submitted document. Closed.
- 4. PP has revised the commissioning date of the 1.8 MW plant and now it is consistent with the supporting commissioning certificate. Closed.

# Client/Responsible Party/Project Proponent Response

Date:

01/08/2025

- The differences in reported Wheeling Agreement and Commissioning Certificate do not represent discrepancies or errors, but rather result from standard industry practice of referencing DC capacities. The MW<sub>AC</sub> capacities mentioned in the PCN and MR documents are in line with the installed number of inverters and the ratings, supported by technical inspection letters. The product of the number of inverters and their individual ratings exactly matches the reported MW<sub>AC</sub> capacity.
- 2. Closed.
- 3. Closed.
- 4. Closed.

## Validation/Verification Team Assessment

Date:

21/08/2025

- 1. The observed differences between the Wheeling Agreement and the Commissioning Certificate do not constitute discrepancies or errors. These variations stem from standard industry practice, wherein DC capacities are referenced in certain contractual and commissioning contexts. The MWAC capacities cited in the Project Commissioning Note (PCN) and Monthly Report (MR) documents are consistent with the installed inverter configuration and their respective ratings. This alignment is further substantiated by the technical inspection letters issued during site verification. Specifically, the MWAC capacity has been derived as the product of the total number of inverters and their individual rated output, which precisely corresponds to the reported figures. This methodology adheres to accepted engineering norms and ensures transparency in capacity reporting across documentation.
- 2. PP has provided the geo-coordinates along with geo-tagged photographs of the plants, and the coordinates have been found to be consistent. Hence this part of the comment is closed.
- 3. PP has submitted the UCR Communication Agreement pertaining to the responsible parties, and the details outlined in the MR have been found consistent with the submitted document. Closed.
- 4. PP has revised the commissioning date of the 1.8 MW plant and now it is consistent with the supporting commissioning certificate. Closed.

Hence, this part of CAR is closed.

Classif	fication	n 🖂 CAR 🔲 CL/CF		☐ FAR	Number:	05			
Raised by:		Ms. Ritu Singh	1		Document Reference	MR			
Finding	g Descri	ption			Date:	10/06/2025			
1.	this proj	ject is solar bund	lled project. The	refore, PP s	for all three plants has hall include the completion with the provided				
Client/	Respons	sible Party/Proje	ect Proponent	Response	Date:	03/07/2025			
1.	The tec	hnical specificati	ons for each of	the bundled	solar plants have beer	n incorporated into the			
		fication Team A			Date:	18/07/2025			
		the section B.1 c plar plant. CAR is		g report and i	ncorporated the techn	ical specification for			
Classif	fication	⊠ CAR	☐ CL/CR	☐ FAR	Number:	06			
Raised	l by:	Ms. Ritu Singh	1		Document Reference	MR			
Finding	g Descri	ption			Date:	10/06/2025			
1.	generat 'Emissio	ion are inconsist	ent with the emi R_449'. Addition	ission calcula ally, PP to pr	seline emission values ations presented in the rovide the step-wise ca dingly.	ER Sheet named			
2.	PP to che version		ph refer for Lea	kage emissio	on as per the applied r	methodology "AMS I.D,			
Client/	Respons	sible Party/Proje	ect Proponent	Response	Date:	03/07/2025			
1.		seline emission v culations has bee		•	nave been revised to n ne MR.	natch the ER Sheet			
2.	<ol><li>The paragraph referencing the leakage emissions as per AMS I.D, version 18.0 for project activities has been updated accordingly.</li></ol>								
Validation/Verification Team Assessment Date: 18/07/2025									
1.									
2.					ated references to met nt is considered closed				
CAR is	closed.								

# Table 3. FARs from this Project Verification

FAR ID	XX	Section no.		Date: DD/MM/YYYY							
Description	Description of FAR										
Project Ow	<del>mer's respon</del>	<del>se</del>		Date: DD/MM/YYYY							
Documenta	ation provide	d by Project Owner									
<b>UCR Project</b>	ct Verifier ass	sessment		Date: DD/MM/YYYY							