

**Project  
Verification  
Report**

**2021**

**COVER PAGE**  
**Project Verification Report Form (VR)**

**BASIC INFORMATION**

<b>Name of approved UCR Project Verifier / Reference No.</b>	Enviance Services Private Limited
<b>Type of Accreditation</b>	<input type="checkbox"/> CDM or other GHG Accreditation <input checked="" type="checkbox"/> ISO 14065 Accreditation
<b>Approved UCR Scopes and GHG Sectoral scopes for Project Verification</b>	01 Energy industries (Renewable/Non- Renewable Sources)
<b>Validity of UCR approval of Verifier</b>	30/09/2027
<b>Completion date of this VR</b>	15/11/2025
<b>Title of the project activity</b>	Neutral Carbon by AXS – 35.5 MW Decentralized Solar Power Projects in Brazil
<b>Project reference no.</b> (as provided by UCR Program)	UCR 572
<b>Name of Entity requesting verification service</b> (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.)	Kosher Climate India Private Limited
<b>Contact details of the representative of the Entity, requesting verification service</b> (Focal Point assigned for all communications)	Name: Mr. Narendra Kumar Email ID – <a href="mailto:narendra@kosherclimate.com">narendra@kosherclimate.com</a>
<b>Country where project is located</b>	Brazil
<b>Applied methodologies</b> (approved methodologies by UCR Standard used)	ACM0002.: “Grid connected electricity generation from renewable sources”, version 22.0
<b>GHG Sectoral scopes linked to the applied methodologies</b>	01 Energy industries (Renewable/Non- Renewable Sources)
<b>Project Verification Criteria:</b> Mandatory requirements to be assessed	<input checked="" type="checkbox"/> UCR Standard <input checked="" type="checkbox"/> Applicable Approved Methodology

	<input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Baseline <input checked="" type="checkbox"/> Do No Harm Test <input checked="" type="checkbox"/> Emission Reduction calculations <input checked="" type="checkbox"/> Monitoring Report <input checked="" type="checkbox"/> No GHG Double Counting <input type="checkbox"/> Others (please mention below)
<b>Project Verification Criteria:</b> Optional requirements to be assessed	<input checked="" type="checkbox"/> Environmental Safeguards Standard and do-no-harm criteria <input checked="" type="checkbox"/> Social Safeguards Standard do-no-harm criteria
<b>Project Verifier's Confirmation:</b> The <i>UCR Project Verifier</i> has verified the UCR project activity and therefore confirms the following:	<p>The UCR Project Verifier Enviance Services Private Limited, certifies the following with respect to the UCR Project Activity <i>Neutral Carbon by AXS – 35.5 MW Decentralized Solar Power Projects in Brazil</i> <input checked="" type="checkbox"/> The Project Owner has correctly described the Project Activity in the Project Concept Note version 2.0 (dated 11/11/2025) including the applicability of the approved methodology <i>ACM0002.: “Grid connected electricity generation from renewable sources”, version 22.0</i> 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.</p>

	<input checked="" type="checkbox"/> The Project Activity is likely to generate GHG emission reductions amounting to the estimated 25,392 tCO <sub>2</sub> e, 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. <input checked="" type="checkbox"/> The Project Activity is not likely to cause any net-harm to the environment and/or society <input checked="" type="checkbox"/> The Project Activity complies with all the applicable UCR rules <sup>1</sup> and therefore recommends UCR Program to register the Project activity with above mentioned labels.
<b>Project Verification Report, reference number and date of approval</b>	Verification Report UCR Reference number: 572 Date of approval: 17-11-2025
<b>Name of the authorised personnel of UCR Project Verifier and his/her signature with date</b>	 Vidhya Muralikrishna Quality Manager Date: 17-11-2025

<sup>1</sup>[https://a23e347601d72166dc6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025Ver11\\_230525172325112351.pdf](https://a23e347601d72166dc6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025Ver11_230525172325112351.pdf)

1[https://a23e347601d72166dc6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025Ver11\\_230525172325112351.pdf](https://a23e347601d72166dc6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UCRtermsandconditionsMay2025Ver11_230525172325112351.pdf)

# PROJECT VERIFICATION REPORT

## Executive summary

The project activity is titled- “Neutral Carbon by AXS – 35.5 MW Decentralized Solar Power Projects in Brazil”. It is a solar-power Project and consists of several project activities installed in Brazil, located in the state of Sao Paulo, Parana, Minas Gerais and Mato Grosso. The promoter of the project is AXS ENERGIA.S/A, a company which has the full ownership of the project activity.

The project activity aims to harness solar radiation, a renewable energy source making the use of solar photovoltaic technology, to generate electricity for supply to captive market consumers grid by the project proponent (PP), AXS ENERGIA.S/A.

The proposed project activity involves installation of Solar photovoltaic power generation projects at different locations, with a total capacity of 35.5 MW. The project involves the installation of ground mounted solar power plant, located in the state of Sao Paulo, Parana, Minas Gerais and Mato Grosso, Brazil, to generate clean energy and reduce greenhouse gas (GHG) emissions.). This project comprises of solar panels spread across different villages.

The solar project generates approximately 77,844 MWh of clean electricity in the current monitoring period.

The Brazilian Distributed Generation (DG) scheme is regulated by the Brazilian National Electric Energy Agency (ANEEL) and was firstly introduced in 2012, by the regulation ANEEL REN 482/2012<sup>2</sup>. After that the scheme was updated in 2015 by the regulation ANEEL REN 687/2015<sup>3</sup>, and then once again updated and solidified in 2022 by the federal law 14.300/2022<sup>4</sup> and the consequent ANEEL REN 1.059/2023<sup>5</sup>. The main aspects of the DG are:

It is a mechanism for allowing Captive Market consumers to generate energy; Captive Market: different from the Free Market, the Captive Market is the automatic and mandatory option for consumers that are not considered large scale (supplied in 2,3 kV or higher voltage), and in it the consumers are fully supplied by the local energy utility company, which is responsible for the energy supply and also for the energy metering & billing.

- It is restricted to renewable energy sources;
- It is size restricted to up to 3 MW per power plant (as per the update of the federal law 14.300/2022);
- It creates the Compensation System, which allows the energy grid injection and the subsequent compensation in the energy bills, including compensation in facilities other than the one where the generation system is installed;
- It doesn't allow the direct sale of energy; nevertheless, other alternative arrangements have been developed to allow commercial operation

By installing solar plants to offset the consumption of businesses, Project Owner is able to provide them with energy from the Solar Plants within the energy compensation scheme: the generated electricity is injected into the national grid, whereas customers receive credits that are offset in their monthly energy bill. Therefore, the project activity has the purpose of

<sup>2</sup> <https://www2.aneel.gov.br/cedoc/ren2012482.pdf>

<sup>3</sup> <https://www2.aneel.gov.br/cedoc/ren2015687.pdf>

<sup>4</sup> [https://www.planalto.gov.br/ccivil\\_03/\\_ato2019-2022/2022/lei/l14300.htm](https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2022/lei/l14300.htm)

<sup>5</sup> <https://www2.aneel.gov.br/cedoc/ren20231059.pdf>

## Project Verification Report

contributing to the transformation of the Brazilian energy matrix through the economic incentives of a clean, renewable, and also cheaper energy source.

The credit from utility and the energy access documents are aligned with the outlines the terms and conditions for energy injection, transmission losses, scheduling, and settlement.

The expected operational lifetime of the project is for 25 years. Addressing the energy demand-supply gap in Brazil and supporting the region's sustainable growth.

The solar plant has been operational since 25/05/2023. 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 25/05/2023 onwards, i.e., crediting period for UCR starts from 25/05/2023. Hence, there is no double counting for said projects.

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

<b>Project Activity</b>	<b>Power Plant Name</b>	<b>Village/State</b>	<b>Energy Source</b>	<b>Installed capacity in MW</b>	<b>Annual generation in MWh/year</b>	<b>Commissioning date</b>
1	Macatuba	Sao Paulo	Solar	4	7,574	25/05/23
2	Miguelópolis	Sao Paulo	Solar	1	2,306	30/09/23
3	Frei Inocêncio I	Minas Gerais	Solar	2.5	4,730	17/10/23
4	Guaraci	Parana	Solar	2.5	5,489	15/09/23
5	Torrezan	Sao Paulo	Solar	3	6,369	25/09/23
6	Guaxupé	Parana	Solar	2.5	5,103	21/11/23
7	Santa Luzia I	Parana	Solar	5	11,529	09/10/23
8	Campo Verde I	Mato Grosso	Solar	2.5	5,275	11/09/23
9	Claudia I	Mato Grosso	Solar	2.5	5,544	20/10/23
10	Palotina I	Parana	Solar	2.5	4,550	26/12/23
11	Alto Paraná I	Parana	Solar	2.5	4,628	24/01/24
12	Cidade Gaúcha I	Parana	Solar	2.5	4,775	14/12/23
13	Limeira	Sao Paulo	Solar	2.5	5,231	15/01/24

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

<b>Project Activity</b>	<b>Power Plant</b>	<b>Country</b>	<b>State</b>	<b>Latitude (S)</b>	<b>Longitude (W)</b>
1.	Macatuba	Brazil	Sao Paulo	-22.503974°S	-48.720347°W
2.	Miguelópolis	Brazil	Sao Paulo	-20.158022° S	-48.025764°W
3.	Frei Inocêncio I	Brazil	Minas Gerais	-18.522476° S	-41.933340°W
4.	Guaraci	Brazil	Parana	-22.984287°S	-51.632214°W
5.	Torrezan	Brazil	Sao Paulo	-20.097357°S	-47.788079°W
6.	Guaxupé	Brazil	Parana	-21.284957°S	-46.679464°W
7.	Santa Luzia I	Brazil	Parana	-22.964774°S	-51.479576°W
8.	Campo Verde I	Brazil	Mato Grosso	-15.536310°S	-55.201234°W
9.	Claudia I	Brazil	Mato Grosso	-11.511011°S	-54.839966°W
10.	Palotina I	Brazil	Parana	-24.305847°S	-53.852611°W
11.	Alto Paraná I	Brazil	Parana	-23.174143°S	-52.321452°W
12.	Cidade Gaúcha I	Brazil	Parana	-23.398029°S	-52.966297°W
13.	Limeira	Brazil	Sao Paulo	-22.534568°S	-47.353057°W

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

The Project Activity is a greenfield solar project and the net generated electricity from the project activity is being provided to the captive consumers by the project proponent. The project activity involves a Ground-Mounted Photovoltaic (PV) Solar Power Plant with a total installed capacity of 35.5 MW. The project utilizes Polycrystalline solar photovoltaic technologies to generate clean, renewable energy.

The project consists of ground mounted photo voltaic solar plant with an installed capacity of 35.5 MW. The plant was commissioned by the respective authority of AXS ENERGIA.S/A. 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. Thus, project activity leads to a reduction in 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 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 25 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 35.5 MW power which is supplied to the captive consumers. 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, 8 and 13.

The first crediting period of the project activity in UCR is 01 year, 07 months and 06 days in which total estimated electricity generation is 88,367 MWh and the total GHG emission reduction estimated is 25,392 tCO<sub>2</sub>e for the current crediting period.

The electricity generation for the current monitoring period is 77,844 MWh and total GHG emission reduction is 26,580 tCO<sub>2</sub>e.

### **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 “Neutral Carbon by AXS – 35.5 MW Decentralized Solar Power Projects in Brazil”, the information and data presented in the MR version 2.0 dated 11/11/2025 is in line with the Project Concept Note Version 2.0 dated 11/11/2025 and meets all relevant requirements of the UCR for UCR project activities. The UCR project activity correctly applies the methodology “ACM0002.: “Grid connected electricity generation from renewable sources”, version 22.0” 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	25/05/2023
End date of monitoring period	31/12/2024
Emission reductions achieved	26,580 tCO <sub>2</sub> 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/Lead Validator	Mahajan	Swati	Enviance Services Private Limited	Yes	Yes	Yes
2.	Validator-Verifier/Technical Expert	Singh	Ritu	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	Internal	Kumar	Mr. Pankaj	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

<b>Date of off-site inspection:</b> 27/10/2025		<b>No.</b>	<b>Activity performed Off-Site</b>	<b>Site location</b>	<b>Date</b>
		1.	<ul style="list-style-type: none"> <li>a) An assessment of the implementation and operation of the project activity as per the PCN and UCR requirements</li> <li>b) Verification of the project design, as documented is sound and reasonable, and meets the identified criteria of UCR Standard Requirements and associated guidance</li> <li>c) Assessment to conformance with the certification criteria as laid out in the UCR Standards;</li> <li>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;</li> <li>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.</li> <li>f) Review of information flows for generating, aggregating and reporting of the parameters to be monitored</li> <li>g) To confirm that the operational and data collection procedures can be implemented in accordance with the Monitoring Plan</li> <li>h) Cross-check of information provided in the submitted documents and data from other sources available at site</li> <li>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</li> </ul> <p>Interviews of local Stakeholders</p>	States: Sao Paulo, Parana, Minas Gerais and Mato Grosso, Country: Brazil	27/10/2025

## Interviews

No.	Interview			Date	Subject
	Last name	First name	Affiliation		
1.	Muniz	Philip (O&M)	AXS ENERGIAS S/A	27/10/2025	Project Implementation, Monitoring plan, Project Boundary, Eligibility criteria, Host country requirements, Emission reduction calculations
2.	Guimaraes	Robson (General operations)			Project implementation, monitoring, Local stakeholder consultation
3.	Arali	Cesar Henrique (Operation technician)			
4.	Henrique	Victor (O&M)			
5.	Lenon	Rulian (O&M)			
6.	-	Sreelakshmi	Kosher Climate India Private Limited		
7.	Thakur	Prachi			
8.	Barbi	Jorge	Kosher Climate India Private Limited		
9.	Abrao	Joao	(Brazil Team)		
10.	Pereira	Valdinei	Local Stakeholders		
11.	Leal	Jonathan			
12.	Hoffstaetter	Fernando			

## 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
<b>Green House Gas (GHG)</b>			
Identification and Eligibility of project type	-	-	-
General description of project activity	01	-	-
Application and selection of methodologies and standardized baselines	-	-	-
- Application of methodologies and standardized baselines	-	-	-
- Deviation from methodology and/or methodological tool	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	01	-	-
- Project boundary, sources and GHGs	01	-	-
- Baseline scenario	-	-	-
- Estimation of emission reductions or net anthropogenic removals	-	-	-

- Monitoring Report	-	-	-
Start date, crediting period and duration	-	01	-
Environmental impacts	-	-	-
Project Owner- Identification and communication	-	-	-
Others (SDG Goals)	01	-	-
<b>Total</b>	<b>04</b>	<b>01</b>	-

## Project Verification findings

### Identification and eligibility of project type

<b>Means of Project Verification</b>	<p>The project has an installation of a 35.5 MW solar power capacity and hence it qualifies as a large-scale project. This is confirmed based on the commissioning certificates and technical specifications.</p> <p>Since the project is a large-scale project, it has applied approved CDM large scale methodology ACM0002.: "Grid connected electricity generation from renewable sources", version 22.0".</p> <p>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.</p>
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	<p>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.</p>

### General description of project activity

<b>Means of Project Verification</b>	<p>The project activity involves the operation of a 35.5 MW of large-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 35.5 MW (States: Sao Paulo, Parana, Minas Gerais and Mato Grosso, Country: Brazil) project.</p> <p>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.</p> <p>By checking the supporting documents, it is confirmed that the project is a greenfield solar power project, the project is located in States: Sao Paulo, Parana, Minas Gerais and Mato Grosso, Country: Brazil. The approximate geo-coordinates of the project locations are mentioned below.</p> <p><b><u>Details of Latitude &amp;Longitude for the project site: -</u></b></p>					
	<b>Project Activity</b>	<b>Power Plant</b>	<b>Country</b>	<b>State</b>	<b>Latitude (S)</b>	<b>Longitude (W)</b>
	1.	Macatuba	Brazil	Sao Paulo	-22.503974° S	48.720347°W
	2.	Miguelópolis	Brazil	Sao Paulo	-20.158022° S	48.025764°W
	3.	Frei Inocêncio I	Brazil	Minas Gerais	-18.522476° S	41.933340°W
	4.	Guaraci	Brazil	Parana	-22.984287° S	51.632214°W
	5.	Torrezan	Brazil	Sao Paulo	-20.097357° S	47.788079°W
	6.	Guaxupé	Brazil	Parana	-21.284957° S	46.679464°W
	7.	Santa Luzia I	Brazil	Parana	-22.964774° S	51.479576°W
	8.	Campo Verde I	Brazil	Mato Gross o	-15.536310° S	55.201234°W
	9.	Claudia I	Brazil	Mato Gross	-11.511011°	54.839966°W

				o	s	
10.	Palotina I	Brazil	Parana	- 24.305847° S	- 53.852611°W	
11.	Alto Paraná I	Brazil	Parana	- 23.174143° S	- 52.321452°W	
12.	Cidade Gaúcha I	Brazil	Parana	- 23.398029° S	- 52.966297°W	
13.	Limeira	Brazil	Sao Paulo	- 22.534568° S	- 47.353057°W	

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.

<b>Findings</b>	CL 01 was raised and closed successfully. More information presented in the appendix below.
<b>Conclusion</b>	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

<b>Means of Project Verification</b>	The project has taken the reference of CDM methodology ACM0002.: "Grid connected electricity generation from renewable sources", version 22.0". 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.
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	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**

<b>Means of Project Verification</b>	The documents reviewed are CDM methodology ACM0002.: "Grid connected electricity generation from renewable sources", version 22.0", UCR Program standard, and UCR Verification Standard.
<b>Findings</b>	CL 04 was raised and closed successfully. More information presented in the appendix below.
<b>Conclusion</b>	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. 2.0 and MR Ver. 2.0. The selected CDM methodology for the project activity is applicable.

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

<b>Means of Project Verification</b>	Project owner has considered project boundary as per applicable methodology ACM0002.: "Grid connected electricity generation from renewable sources", version 22.0", "the spatial extent of this project activity includes the project site and all the power plants connected physically to the electricity system (grid) that the power project is connected to". Review of PCN and MR confirms that project sites and Brazilian electricity grid system is considered as a project boundary which is appropriate.
<b>Findings</b>	CL 03 was raised and closed successfully. More information presented in the appendix below.
<b>Conclusion</b>	The project boundary is correctly defined in the PCN and MR. GHG sources are correctly identified and reported. The project meets the requirements of UCR project standard, Verification standard and methodology requirements for a boundary, GHG sources.

**(.a.iv) Baseline scenario**

<b>Means of Project Verification</b>	As per the approved consolidated methodology ACM0002- Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0 the baseline scenario is as following:  The baseline scenario is that if the project activity is the installation of a Greenfield power plant, the baseline scenario is 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 to 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 Brazilian grid which is dominated by fossil fuel fired plants.
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	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 in the PCN. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable.
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(.a.v) Estimation of emission reductions or net anthropogenic removal

<b>Means of Project Verification</b>	<p>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 &amp; MR respectively to confirm whether all formulae to calculate baseline emissions, project emission and leakage have been applied in line with the underlying methodology.</p> <p>The emission reduction calculation has been carried out as per the CDM methodology ACM0002-Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0.</p> <p>As per the CDM approved ACM0002-Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0 paragraph 57, encompass solely the CO<sub>2</sub> emissions stemming from electricity generation in power plants displaced by the project activity. The methodology operates on the assumption that any electricity generation exceeding baseline levels would have originated from established grid-connected power plants and the integration of new grid-connected power plants.</p> <p>The baseline emissions are to be calculated as follows:</p> $BE_y = EG_{PJ,y} \times EF_{grid,y}$ <p>Where;</p> <ul style="list-style-type: none"> <li><math>BE_y</math> = Baseline Emissions in year y (t CO<sub>2</sub>)</li> <li><math>EG_{PJ,y}</math> = 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)</li> <li><math>EF_{grid,y}</math> = CO<sub>2</sub> emission factor of grid electricity for the given year y.</li> </ul> <p>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.</p> <p><b>The combined margin of the Brazil grid used for the project activity is as follows:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">Parameter</th><th style="text-align: center; padding: 2px;">Value</th><th style="text-align: center; padding: 2px;">Nomenclature</th><th style="text-align: center; padding: 2px;">Source</th></tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 2px;">EF<sub>grid,CM,y</sub></td><td style="text-align: center; padding: 2px;">As given below</td><td style="text-align: center; padding: 2px;">Combined margin CO<sub>2</sub> emission factor for the project electricity system in year</td><td style="text-align: center; padding: 2px;">Calculated as the weighted average of the operating margin (0.75) &amp; build margin (0.25) values, sourced from Ministry of Science and Technology "CO<sub>2</sub> emission factors for electricity generation in the National</td></tr> </tbody> </table>	Parameter	Value	Nomenclature	Source	EF <sub>grid,CM,y</sub>	As given below	Combined margin CO <sub>2</sub> emission factor for the project electricity system in year	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Ministry of Science and Technology "CO <sub>2</sub> emission factors for electricity generation in the National
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		y.	Interconnected System of Brazil.
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Year	Operating Margin Emission Factor	Build Margin Emission Factor	Combined Margin Emission Factor
2023	0.3785	0.0326	0.2921
2024	0.4473	0.0523	0.349

(Source: <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/paginas/metodo-da-analise-de-despacho>)

**Project emissions:**  
As the project activity consists of the installation of a new grid-connected solar power plant and does not involve any project emissions from fossil fuel, operation of dry, flash steam or binary geothermal power plants, and from water reservoirs of hydro power plants. Therefore, project emissions are:  
 $PE_y = 0$ .

Where,  
 $PE_y$  = Project emissions in year y (t CO<sub>2</sub>e/yr)

**Leakage Emissions:**  
Leakage, as outlined in ACM0002 version 22.0, para 5.6, is considered to be zero as there is no transfer of energy-generating equipment in the project activity.  
No other leakage emissions are considered. The emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport etc.) are neglected

Hence,  $LE_y = 0$ .

**Emission reductions:**  
The project activity involves setting up new solar power plants to harness the power of solar energy and inject electricity into the Brazilian regional grid. In the absence of the project activity, the equivalent amount of power would have been generated by the operation and/or insertion of more- GHG-intensive grid-connected power plants. Hence, the baseline for the project

activity is the equivalent amount of power produced at the Brazilian grid. As per approved ACM0002-Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0, emission reduction is estimated as difference between the baseline emission and project emission after factoring into leakage.

$$\text{Thus, } \text{ER}_y = \text{BE}_y - \text{PE}_y - \text{LE}_y$$

Where:

$\text{ER}_y$	= Emission reductions in year y (t CO <sub>2</sub> )
$\text{BE}_y$	= Baseline Emissions in year y (t CO <sub>2</sub> )
$\text{PE}_y$	= Project emissions in year y (t CO <sub>2</sub> )
$\text{LE}_y$	= Leakage emissions in year y (t CO <sub>2</sub> )

$$\text{Therefore, } \text{ER}_y = \text{BE}_y$$

The earliest commissioning date of the Project is 25/05/2023 when the first solar plant was commissioned. The start date of the crediting period under UCR is considered from 25/05/2023.

For the ease of the calculation, duration of the crediting period in UCR is started from 25/05/2023 to 31/12/2024.

The estimated emission reductions are 25,392 CoUs/yr (25,392 tCO<sub>2eq</sub>/yr)

<b>Estimated Emissions Reduction - First CoUs Issuance Period: from 25/05/2023 to 31/12/2024</b>					
<b>Project Activity</b>	<b>Annual generation (MWh/year )</b>	<b>Commissioning Date</b>	<b>Estimated Generation of 1st Issuance (MWh)</b>	<b>Grid Emission Factor (tCO<sub>2</sub>/MWh )</b>	<b>Estimated Total of CoUs 1st Issuance (tCO<sub>2</sub>)</b>
1	7,574	25/05/2023	12159.90	0.3485	4237.9
2	2,306	30/09/2023	2893.56	0.3485	1008.5
3	4,730	17/10/2023	5714.88	0.3485	1991.7
4	5,489	15/09/2023	7113.14	0.3485	2479.1
5	6,369	25/09/2023	8079.03	0.3485	2815.7
6	5,103	21/11/2023	5676.21	0.3485	1978.3
7	11,529	09/10/2023	14182.25	0.3485	4942.8
8	5,275	11/09/2023	6893.63	0.3485	2402.6
9	5,544	20/10/2023	6652.80	0.3485	2318.6
10	4,550	26/12/2023	4624.79	0.3485	1611.8
11	4,628	24/01/2024	4336.37	0.3485	1511.3
12	4,775	14/12/2023	5010.48	0.3485	1746.2
13	5,231	15/01/2024	5030.36	0.3485	1753.2

The actual emission reduction achieved during the first CoU's period (25/05/2023 to 31/12/2024) as per the Project Activity:

	<p><b>Actual Total baseline emission reductions (BEy)= 26,580 CoUs (26,580 tCO<sub>2</sub>eq)</b></p> <table border="1"> <thead> <tr> <th>Crediting period</th><th>Net Generation (MWh/year)</th><th>Emission Factor (tCO<sub>2</sub>/MWh)</th><th>Emission Reduction (tCO<sub>2</sub>/year)</th></tr> </thead> <tbody> <tr> <td>25-05-2023 to 31-12-2023</td><td>9,739.69</td><td>0.292</td><td>15,725</td></tr> <tr> <td>01-01-2024 to 31-12-2024</td><td>68,104.89</td><td>0.349</td><td>23,080</td></tr> <tr> <td><b>Total</b></td><td><b>77,844</b></td><td></td><td><b>26,580</b></td></tr> </tbody> </table>	Crediting period	Net Generation (MWh/year)	Emission Factor (tCO <sub>2</sub> /MWh)	Emission Reduction (tCO <sub>2</sub> /year)	25-05-2023 to 31-12-2023	9,739.69	0.292	15,725	01-01-2024 to 31-12-2024	68,104.89	0.349	23,080	<b>Total</b>	<b>77,844</b>		<b>26,580</b>
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<b>Findings</b>	No findings raised.																
<b>Conclusion</b>	<p>In summary, the calculation of emission reductions was correctly demonstrated by the PP according to the methodology ACM0002- Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0.</p> <p>It is confirmed by the assessment team that:</p> <ul style="list-style-type: none"> <li>(a) All assumptions made for estimating GHG are listed in the PCN;</li> <li>(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</li> <li>(c) All values used in the PCN including GWP<sub>s</sub> are considered reasonable in the context of the proposed UCR project activity;</li> <li>(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;</li> <li>(e) All estimates of the baseline GHG emissions can be replicated using the data and parameter values provided in the PCN;</li> </ul>																

**(.a.vi) Monitoring Report**

<b>Means of Project Verification</b>	<p>Parameters determined- Ex-ante</p> <p>The following parameters are determined ex-ante and verified by the verification team:</p> <p>The baseline emission factor (<math>EF_{grid,y}</math>) 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<sub>2</sub> emission factor (tCO<sub>2</sub>/MWh) which will be associated with each unit of electricity provided by an electricity system.</p> <p><b>The combined margin of the Brazil grid used for the project activity is as follows:</b></p> <table border="1"> <thead> <tr> <th>Parameter</th><th>Value</th><th>Nomenclature</th><th>Source</th></tr> </thead> <tbody> <tr> <td><math>EF_{grid,CM,y}</math></td><td>As given below</td><td>Combined margin CO<sub>2</sub> emission factor for the project electricity system in year y.</td><td>Calculated as the weighted average of the operating margin (0.75) &amp; build margin (0.25) values, sourced from Ministry of Science and Technology "CO<sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.</td></tr> <tr> <td><math>EF_{grid,OM,y}</math></td><td>As given below</td><td>Operating margin CO<sub>2</sub> emission factor for the project electricity system in year y.</td><td>Calculated from the monthly average emission, sourced from Ministry of Science and Technology "CO<sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.</td></tr> <tr> <td><math>EF_{grid,BM,y}</math></td><td>As given below</td><td>Build margin CO<sub>2</sub> emission factor for the project electricity system in year y.</td><td>The built margin value has been sourced from Ministry of Science and Technology "CO<sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Year</th><th>Operating Margin Emission Factor</th><th>Build Margin Emission Factor</th><th>Combined Margin Emission Factor</th></tr> </thead> <tbody> <tr> <td>2023</td><td>0.3785</td><td>0.0326</td><td>0.2921</td></tr> <tr> <td>2024</td><td>0.4473</td><td>0.0523</td><td>0.349</td></tr> </tbody> </table> <p>(Source: <a href="https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/paginas/metodo-da-analise-de-despacho">https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/paginas/metodo-da-analise-de-despacho</a>)</p> <p>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,</p>	Parameter	Value	Nomenclature	Source	$EF_{grid,CM,y}$	As given below	Combined margin CO <sub>2</sub> emission factor for the project electricity system in year y.	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Ministry of Science and Technology "CO <sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.	$EF_{grid,OM,y}$	As given below	Operating margin CO <sub>2</sub> emission factor for the project electricity system in year y.	Calculated from the monthly average emission, sourced from Ministry of Science and Technology "CO <sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.	$EF_{grid,BM,y}$	As given below	Build margin CO <sub>2</sub> emission factor for the project electricity system in year y.	The built margin value has been sourced from Ministry of Science and Technology "CO <sub>2</sub> emission factors for electricity generation in the National Interconnected System of Brazil.	Year	Operating Margin Emission Factor	Build Margin Emission Factor	Combined Margin Emission Factor	2023	0.3785	0.0326	0.2921	2024	0.4473	0.0523	0.349
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	<p>measurable and conservative.</p> <p>Parameters monitored ex-post</p> <p>According to the approved methodology ACM0002-Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0, the following parameters will be monitored:</p> <table border="1"> <thead> <tr> <th>Parameter</th><th>Description</th></tr> </thead> <tbody> <tr> <td><math>EG_{pj,y}</math></td><td>Quantity of net electricity generation supplied by the project plant/unit to the grid in year y</td></tr> </tbody> </table> <p>The values of the parameters monitored were checked against submitted Joint Meter Readings and invoices and were found correct.</p> <p><b>Meter Details:</b></p> <p>The DG systems are installed in the consumer units supplied (in energy) by the DisCos within the Captive Market scheme. Therefore, the meters are installed, operated and maintained by the DisCos. DG profile that generates energy exclusively for grid export: this is the case of the <b>Solar Farms</b>.</p> <p>As the energy generation is exclusively for grid export, the only energy that is not exported (thus not accounted as export by the meter) is a very low portion that refers to the power plant self-consumption. Therefore, for this profile, the energy generation is well reflected by the DisCo meter (and by the DisCo monthly invoice data). In these cases, in arrangements similar to Power Purchase Agreements, the DisCo meter data (and DisCo monthly invoice data) are the source of data used for billing purposes; no meters calibration certificates are usually required as the providing and O&amp;M of the meters are a legal responsibility of the DisCo with the national government, thus access to it is restricted to the DisCo.</p> <p>Management system and quality assurance</p> <p>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.</p> <p>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 against related requirement; the training guidelines and monitoring manual are saved and verified.</p> <p>The monitoring plan outlines in the PCN includes:</p> <ul style="list-style-type: none"> <li>- Monitoring Organization</li> <li>- Monitoring apparatus and installation</li> <li>- Calibration</li> <li>- Data collection</li> </ul>	Parameter	Description	$EG_{pj,y}$	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Parameter	Description				
$EG_{pj,y}$	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y				

	<p>- Data Management system</p> <p>The submitted meter details were checked and it was confirmed that the calibrations of meters are restricted to DisCo.</p>
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	<p>The verification team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology ACM0002- Consolidated baseline methodology for grid-connected electricity generation from renewable sources -Version 22.0. 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.</p> <p>The monitoring parameter reported in MR adequately represents the parameters relevant to emission reduction calculation. The meter details ensure 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 <a href="#">Ministry of Science, Technology and Innovation</a>, Brazil for Brazilian project. In the monitoring report, emission reduction calculations are correctly calculated and reported. The monitoring report meets the requirements of UCR project verification requirements.</p>

### Start date, crediting period and duration

<b>Means of Project Verification</b>	The start date and crediting period of project activity was checked based on the commissioning certificate, PCN, MR and other documents provided.
<b>Findings</b>	CAR 01 was raised and closed successfully. More information presented in the appendix below.
<b>Conclusion</b>	The project has chosen crediting period start date in UCR as 25/05/2023. The crediting period is chosen as 25/05/2023 to 31/12/2024 and the crediting period for the current monitoring period is 25/05/2023 to 31/12/2024.

### Positive Environmental impacts

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

### Project Owner- Identification and communication

<b>Means of Project Verification</b>	PCN, communication agreement, MR, commissioning certificate, power purchase agreement.
<b>Findings</b>	No findings raised.

<b>Conclusion</b>	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: AXS ENERGIA.S/A.
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### Positive Social Impact

<b>Means of Project Verification</b>	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
<b>Findings</b>	CL 02 was raised and closed successfully. More information presented in the appendix below.
<b>Conclusion</b>	Project has overall positive social impact

### Sustainable development aspects (if any)

<b>Means of Project Verification</b>	PP has claimed SDG Goals 7, 8 & 13. 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.
<b>Findings</b>	No findings raised.
<b>Conclusion</b>	The project has the capability to address SDG 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 aggregator or 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 35.5 MW of large-scale solar power project located at States: Sao Paulo, Parana, Minas Gerais and Mato Grosso, Country: Brazil.

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 ACM0002.: "Grid connected electricity generation from renewable sources", version 22.0.

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 26,580 tCO<sub>2</sub>eq during the monitoring period i.e. from 25/05/2023 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
ACM	Approved Consolidated Methodology
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
CH <sub>4</sub>	Methane
N <sub>2</sub> O	Nitrous Oxide

## Appendix 2. Competence of team members and technical reviewers

- ❖ **Mr. Pankaj Kumar** is a seasoned Environment and Climate Change professional with over 19 years of experience in Climate Change Mitigation & Adaptation, Environmental Due Diligence, Disaster Risk Reduction, Climate Finance, and capacity building. As the Managing Director of Enviance Services Pvt. Ltd., Pankaj Kumar leads a validation and verification body for GHG projects and also providing consultancy services in various areas including Climate Adaptation, Mitigation, Sustainability, and more. Previously, Pankaj Kumar served as a Climate Adaptation Expert with Deloitte Touche Tohmatsu India LLP, contributing to the World Bank project on Asset Management, Institutional Effectiveness, and Road Safety in Bihar. Mr. Pankaj also led the Bihar team for the South Asia Climate Proofing and Growth Development (CPGD) – Climate Change Innovation Programme (CCIP), supported by DFID, which aimed to integrate climate change resilience into planning and budgeting across South Asia. With a strong background in environmental projects, Pankaj Kumar has worked with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation) as an Environmental Specialist for WB & ADB funded projects. Additionally, Pankaj has extensive experience in GHG project validation and verification, having led over 300 projects globally while with UNFCCC accredited DoEs and as an external expert for Gold Standard and Global Carbon Council. Mr. Pankaj is an accredited Lead Auditor, Validator, Verifier, and Technical Expert for multiple sectoral scopes by UNFCCC DoE and is on the roster of WASH experts of UNICEF. Mr. Pankaj's expertise spans across various standards including CDM, Verified Carbon Standard, Gold Standard, Global Carbon Council, Natural Forest Standard, Riverse and Social Carbon Standard.
- ❖ **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 Brazilian projects	Source: <a href="https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/paginas/metodo-da-analise-de-despacho">https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/cgcl/paginas/metodo-da-analise-de-despacho</a> .	<a href="#">Ministry of Science, Technology and Innovation, Brazil</a>
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	<a href="https://www.ucarbonregistry.io/Document?projectId=1">https://www.ucarbonregistry.io/Document?projectId=1</a>	Universal Carbon Registry
13	CDM	CDM approved methodology- ACM0002.: “Grid connected electricity generation from renewable sources”, version 22.0	<a href="https://cdm.unfccc.int/UserManagement/FileStorage/R0IJ1X9LQ7W2GOYHSMBFCPE3VKZ685">https://cdm.unfccc.int/UserManagement/FileStorage/R0IJ1X9LQ7W2GOYHSMBFCPE3VKZ685</a>	UNFCCC

## Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

<b>Classification</b>	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	<b>Number:</b>	01
<b>Raised by:</b>	Ms. Swati Mahajan	<b>Document Reference</b>	MR
<b>Finding Description</b>		<b>Date:</b>	29/10/2025
<p>As discussed during the remote audit, it was noted that the energy produced under the project activity is directly supplied to end consumers. PP is requested to submit a detailed note clarifying the mechanism of energy distribution, including the mode of supply, consumer categories, and any contractual arrangements in place.</p> <p>PP shall submit the invoice reflecting the credit received from the utility, along with supporting documentation. Additionally, please provide the names and roles of all parties involved in the transaction, including the utility, crediting agency (if applicable), and any intermediaries.</p>			
<b>Client/Responsible Party/Project Proponent Response</b>		<b>Date:</b>	11/11/2025
<p>A detailed note explaining the distribution energy generation scheme in Brazil is submitted. The invoice reflecting the credit received from utility, along with supporting document is also submitted. Details of parties involved in the transaction including utility is also provided.</p>			
<b>Validation/Verification Team Assessment</b>		<b>Date:</b>	12/11/2025
<ol style="list-style-type: none"> <li>The Project Participant (PP) has submitted a detailed note outlining the energy distribution mechanism under the project activity in Brazil, including the mode of supply, consumer categories, and relevant contractual arrangements. The invoice reflecting the credit received from the utility, along with supporting documentation, has also been provided. Additionally, the PP has furnished the names and roles of all parties involved in the transaction, including the utility and other relevant entities. Based on the information submitted, the documentation appears to address the audit request.</li> </ol> <p>Hence, CL 01 is closed.</p>			

<b>Classification</b>	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	<b>Number:</b>	02
<b>Raised by:</b>	Ms. Swati Mahajan	<b>Document Reference</b>	MR
<b>Finding Description</b>		<b>Date:</b>	29/10/2025
<ol style="list-style-type: none"> <li>PP shall submit the names of the local stakeholders.</li> <li>PP has claimed alignment with <b>Sustainable Development Goal (SDG) 8</b> under the project activity. To substantiate this claim, PP shall submit appropriate supporting documentation that demonstrates measurable contributions toward SDG 8.</li> </ol>			
<b>Client/Responsible Party/Project Proponent Response</b>		<b>Date:</b>	11/11/2025
<ol style="list-style-type: none"> <li>The name of the stakeholders is provided.</li> <li>Employment records are submitted to substantiate the contribution of the project activity to SDG 8.</li> </ol>			
<b>Validation/Verification Team Assessment</b>		<b>Date:</b>	12/11/2025

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| <ol style="list-style-type: none"> <li>1. PP has submitted the names of the local stakeholders.</li> <li>2. The submission of employee details by the Project Participant (PP) has been reviewed in the context of the claimed alignment with Sustainable Development Goal (SDG) 8. The documentation demonstrates measurable contributions toward promoting inclusive and sustainable economic growth, employment, and decent work.</li> </ol> |
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Hence, CL 02 is closed.

<b>Classification</b>	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	<b>Number:</b>	<b>03</b>
<b>Raised by:</b>	<b>Ms. Swati Mahajan</b>	<b>Document Reference</b>	<b>MR</b>
<b>Finding Description</b>		<b>Date:</b>	<b>29/10/2025</b>
<ol style="list-style-type: none"> <li>1. PP shall submit a KML file or any other geospatial supporting document that clearly indicates the latitude and longitude coordinates of all project locations.</li> <li>2. PP shall add google images of the project location in both MR and PCN.</li> </ol>			
<b>Client/Responsible Party/Project Proponent Response</b>		<b>Date:</b>	<b>11/11/2025</b>
<ol style="list-style-type: none"> <li>1. KML file clearly indicating the latitude and longitude of project locations are provided for review.</li> <li>2. Google images of project location are included in both MR and PCN.</li> </ol>			
<b>Validation/Verification Team Assessment</b>		<b>Date:</b>	<b>12/11/2025</b>
<ol style="list-style-type: none"> <li>1. PP has submitted the KML file of all project location which clearly indicates the latitude and longitude coordinates of all project locations.</li> <li>2. PP has added google images of the project location in both PCN and MR. During assessment it was verified in PCN version 2.0 and MR version 2.0.</li> </ol>			
<p>Hence, CL 03 is closed.</p>			

<b>Classification</b>	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	<b>Number:</b>	<b>04</b>
<b>Raised by:</b>	<b>Ms. Swati Mahajan</b>	<b>Document Reference</b>	<b>MR</b>
<b>Finding Description</b>		<b>Date:</b>	<b>29/10/2025</b>
<p>PP shall submit the meter calibration report which are consistent with the submitted meter photographs.</p>			
<b>Client/Responsible Party/Project Proponent Response</b>		<b>Date:</b>	<b>11/11/2025</b>
<p>An explanation defining the scope of meter calibration in distributed energy generation system is provided for review.</p>			
<b>Validation/Verification Team Assessment</b>		<b>Date:</b>	<b>12/11/2025</b>
<p>The clarification submitted by the Project Participant (PP) regarding energy metering practices in the Brazilian Energy Captive Market has been reviewed. As per the submitted document The Brazilian Distributed Generation (DG) scheme is regulated by the Brazilian National Electric Energy Agency (ANEEL) and the utility company is responsible for installing, operating and maintaining the metering systems. The client is not involved in meter maintenance and calibration process.</p>			
<p>Hence, CL 04 is closed.</p>			

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

<b>Classification</b>	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	<b>Number:</b>	01
<b>Raised by:</b>	Ms. Swati Mahajan	<b>Document Reference</b>	MR
<b>Finding Description</b>	<b>Date:</b>		29/10/2025
<ol style="list-style-type: none"> <li>1. First issuance period mentioned in PCN is consistent with the MR. Correction sought</li> <li>2. PP shall ensure that all corrections and updates highlighted in the Monitoring Report (MR) are duly incorporated into the Project Concept Note (PCN) as well. This alignment is necessary to maintain consistency across project documentation and to reflect accurate and verified information throughout the reporting framework.</li> </ol>			
<b>Client/Responsible Party/Project Proponent Response</b>		<b>Date:</b>	11/11/2025
<ol style="list-style-type: none"> <li>1. First issuance period mentioned in the PCN is made consistent with that of MR.</li> <li>2. All corrections and updates highlighted in the MR are incorporated into PCN as well.</li> </ol>			
<b>Validation/Verification Team Assessment</b>		<b>Date:</b>	12/11/2025
<ol style="list-style-type: none"> <li>1. PP has made changes in first issuance period. During assessment it was observed that the first issuance period in PCN version 2.0 is now consistent with that mentioned in MR version 2.0.</li> <li>2. The incorporation of corrections and updates from the Monitoring Report (MR) into the Project Concept Note (PCN) has been reviewed. The alignment across both documents ensures consistency and supports the integrity of the reporting framework. The updates are considered satisfactory for verification purposes.</li> </ol>			
Hence, CAR 01 is closed.			

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

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