

Verification Report

UCR ID: 353

Prepared by



Naturelink Solutions Pvt. Ltd.

Title	Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited			
Project Owner	M/s Puneet Syntex Private Limited			
	Village- Barbaria,	22°44'22.4"N		
	Dist: Kolkata,	88°27'22.1"E		
Project Location	Village- Podanur,	10°56'56.9"N		
	Dist: Coimbatore,	76°59'07.2"E		
Date	12/07/2024			

COVER PAGE

Project Verification Report Form (VR)

BASIC INFORMATION Naturelink Solutions Pvt. Ltd Name of approved UCR Project Verifier / Reference No. CDM Accreditation **Type of Accreditation** ☐ ISO 14065 Accreditation □ UCR Approved Verifier **Approved UCR Scopes and GHG Sectoral** Sectoral Scope: 01 Energy Industries scopes for Project Verification Validity of UCR approval of Verifier May - 2022 onwards Completion date of this VR 12/07/2024 Title of the project activity Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited Project reference no. (as provided by UCR 353 Program) Name of Entity requesting verification Creduce Technologies Private Limited service (Creduce) (Aggregator) Puneet Syntax Private Limited (Project Owner) Contact details of the representative of the Mr. Shailendra Singh Rao (Creduce) Entity, requesting verification service shailendra@creduce.tech (Focal Point assigned for all communications) Mr. Kumar Reddy puneetsyntex@gmail.com Country where project is located India **Applied methodologies** AMS-I. D: "Grid connected renewable electricity generation", version 18 Sectoral Scope(s): 01 Energy industries (Renewable/Non-Renewable Sources) **Project Verification Criteria:** □ UCR Verification Standard Mandatory requirements to be assessed Applicable Approved Methodology

	Applicable Legal requirements /rules of the host country
	Start date of the Project activity
	□ Do No Harm Test
	Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	⊠ Environmental Safeguards Standard and do-no-harm criteria
	Social Safeguards Standard do-no-harm criteria
Project Verifier's Confirmation: The UCR Project Verifier has verified the UCR project activity and therefore confirms the following:	The UCR-approved verifier Naturelink Solutions Pvt. Ltd., verifies the following with respect to the UCR Project Activity "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited" The project aggregator has correctly described the project activity in the Project Concept Note/9/ including the applicability of the approved methodology AMS-I. D/4/ 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.
	Mathematical Theorem Theorem The Project activity is likely to generate GHG emission reductions amounting to the estimated 7404 tCO₂e, as indicated in the monitoring report/10/17/, which are additional to the reductions that are likely to occur in absence of the project activity and complies with all applicable UCR rules, including ISO 14064-2 and ISO 14064-3.

	 ☑ The project activity is not likely to cause any net-harm to the environment and/or society ☑ The project activity complies with all the applicable UCR rules and therefore recommends UCR Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	Verification Report UCR UCR ID: 353 Version: 1.0 Date: 12/07/2024
Name of the authorised personnel of UCR Project Verifier and his/her signature with date	Mr. Shyam Mandliya GHG Assessor Naturelink Solution Pvt. Ltd. Date: 12/07/2024

Table of Contents

1.	Project Verification Report						
1.1	1 Executive Summary						
1.2	2 Description of the Project						
1.3	Proje	ct Verification team, technical reviewer and approver:	7				
2	Verifica	tion Process	7				
	2.1.1	Desk/document review	7				
	2.1.2	Onsite Inspection	8				
	2.1.3	Interviews	9				
	2.1.4 reques	Clarification request (CLs), corrective action request (CARs) and forward a (FARs) raised					
3	Project	Verification findings	11				
3.1	ldent	ification and eligibility of project type	11				
3.2	Gene	eral description of project activity	11				
3.3	Appli	cation and selection of methodologies and standardized baselines	12				
	3.3.1	Application of methodology and standardized baselines	12				
	3.3.2	Clarification on applicability of methodology, tool, and/or standardized bas	eline 13				
	3.3.3	Project boundary, sources and GHGs	15				
	3.3.4	Baseline scenario	16				
	3.3.5	Estimation of emission reductions or net anthropogenic removal	16				
	3.3.6	Monitoring Report	18				
3.4	Start	date, crediting period and duration	19				
3.5	Envir	onmental impacts and safeguard assessment	19				
3.6	Proje	ct Owner- Identification and communication	20				
3.7	Posit	ive Social Impact	20				
3.8	Susta	ainable development aspects (if any)	20				
3.9	Othe	rs (if any)	21				
4	Interna	quality control:	21				
5	Project	Verification opinion:	21				
6	Compe	tence of team members and technical reviewers	22				
Арр	endix 1:	Abbreviations	23				
		Document reviewed or referenced					
		Clarification request, corrective action request and forward action request					

1. Project Verification Report

1.1 Executive Summary

The verification work has been contracted by project aggregator M/s. Creduce Technologies Pvt Ltd and M/s Puneet Syntax Private Limited to perform an independent verification of its UCR project titled "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited.", UCR approved project ID:353, to establish a number of CoUs generated by the project over the crediting period from 25/08/2014 to 31/12/2023 (both days included).

Verification for the period: 25/08/2014 to 31/12/2023

In our opinion, the total GHG emission reductions over the crediting / verification period stated in the Monitoring Report (MR) V2.0/17/, submitted are found to be correct and in line with the UCR guidelines. The GHG emission reductions were calculated on the basis of UCR guideline which draws reference from, the standard baseline, AMS-I. D: "Grid connected renewable electricity generation", version 18/4/. The verification was done by remote inspection of the plant and submission of documents for verification through emails.

It is certified that the emission reductions from the Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited. (UCR ID - 353) for the period 25/08/2014 to 31/12/2023 amounts to **7404** CoUs (**7404** tCO₂e).

Objective

The objective of this verification is to have an independent third-party assessment of whether the project activity conforms to the qualification criteria set out in the UCR Program Manual/1/, UCR CoU Standard/2/ and UCR verification standard/3/ to attain real, measurable, accurate and permanent emission reductions.

Scope

The scope of the verification is the independent, objective review and ex-post determination of the monitored reductions in GHG emission by the project activity.

- 1. To verify the project implementation and operation with respect to the registered PCN V1.0/09/.
- 2. To verify the implemented monitoring plan with the registered PCN V1.0/09/ applied baseline and monitoring methodology.
- 3. To verify that the actual monitoring systems and procedures follow the monitoring plan.
- 4. To evaluate the GHG emission reduction data and express a conclusion whether the reported GHG emission reduction data is free from material misstatement
- 5. To verify that reported GHG emission data is sufficiently supported by evidence.

The project is assessed against the requirements of the UCR Program Manual/1/, UCR CoU Standard/2/ and UCR verification standard/3/, ISO 14064-2:2019.

Due professional care has been exercised and ethical conduct has been followed by the assessment team during the verification process. The verification report is a fair presentation of the verification activity. The validation of the project is not part of the present assignment and project is deemed validated post-registration by UCR.

1.2 Description of the Project

The project activity is a renewable power generation activity which incorporates operation of bundled 1.003 MW ground & rooftop mounted solar project developed by M/s Puneet Syntex Private Limited. The project activity is located in Tamil Nadu and West Bengal States of India.

The project involves installation of two solar plant of 522 kW, 481 kW at Tamil Nadu and Kolkata states of India respectively. The details of the project activity are verified with the PCN V1.0/9/, MR V2.0/17/ and relevant documents submitted for verification as mentioned in appendix-2

The electrical power generated by the PV array is fed into the load. If the load demand is more than the SPV generation, the balance between SPV power and demand of power at the load end is met by drawing it from the grid. When the load is below the solar generation, excess SPV power will be fed to the grid line. The Solar Grid system works in synchronization with the Grid power.

The technical specification is listed below;

Everest industries Limited:

Parameter	Description
Total number of Photovoltaic Modules	1740
Rating of Photovoltaic Module	300 Wp per module
Module make	Yingli Energy Co. Limited
Technology	Polycrystalline
No. of Inverter	01
Invertor make/Rating	500 kWp (Hitachi)
Rated frequency	50/60 Hz
Inverter phases – wires	3 Phases and 3 wires
Energy meter make	Schneider
Transformer/Capacity	DYM – 11/60 KVA, 11KV/300V

ABP Pvt. Ltd.:

Parameter	Description
Total number of Photovoltaic Modules	1480 No's
Rating of Photovoltaic Module	325 Wp
Module make	Trina Solar
No. of Inverter	1 Nos. 405 kW
Invertor make/Rating	Fronius
Rated frequency	50 HZ
Energy meter make	Schneider Electric
Transformer/Capacity	NA

As mentioned in the MR V 2.0/17/ and emission reduction calculation sheet/11/ submitted for verification, the project replaces anthropogenic emissions of greenhouse gases (GHGs) estimated to be 7404 tCO₂e for the verification period, there on displacing 8231.629 MWh amount of electricity from the generation of fossil-fuel based power plants connected to the Indian electricity grid.

The project activity is a ground and roof top mounted solar plant for renewable energy generation project having a capacity of less than 15 MW. The project is a small-scale activity. The methodology applied in the MR V 2.0/17/ is verified against the AMS-I. D: "Grid connected

renewable electricity generation", version 18/4/ total emission reductions (ERs) achieved through the project activity during the monitoring period is summarised below:

Summary of the Project Activity and ERs Generated for the Monitoring Period					
Project start date	25/08/2014				
Start date of this Monitoring Period	25/08/2014				
Carbon credits claimed up to	31/12/2023				
Total ERs generated (tCO ₂ e)	7404				
Leakage Emission	0				
Project Emission	0				

1.3 Project Verification team, technical reviewer and approver:

1.3.1 Project verification team

Sr.	Role	Last	First	Affiliation	Involvement in		in
No.		name	name		Doc review	Remote inspection	Interviews
1.	Team Leader & Technical Expert	Shyam	Mandliya	Naturelink Solutions Pvt. Ltd.	Yes	Yes	Yes

1.3.2 Technical Reviewer and Approver of the Verification report

Sr. No.	Role	Type of resource	Last name	First name	Affiliation
1.	Internal Technical Reviewer	IR	Prajapati	Divya	Naturelink Solutions Pvt. Ltd.

2 Verification Process

2.1.1 Desk/document review

- A review of data and information presented to assess its completeness
- A review of the initial PCN/9/, MR/10/17/, emission reduction calculation sheet/11/, Methodology - AMS-I. D V 18.0/4/.
- A cross-check between information provided in the monitoring report /10/17/ and data from other sources such as monthly electricity generation by PP/13/ and similar data sources;
- A review of calculations and assumptions made in determining the GHG data and emission reductions calculation/11/18/;

The list of documents reviewed is available in a subsequent section of this verification report under the appendix - 2 "Document reviewed or referenced".

2.1.2 Remote Inspection

The verification team conducted remote assessment of project activity via video conferencing on 13/06/2024 and 14/06/2024 as mentioned in the below table.

Date of remote inspection:		13/06/2024			
No.	No. Activity performed during remote inspection		Site location	Date	Project Personnel
1.	1. Opening meeting		Project location – Everest Industries Ltd.	13/06/2024	Mr. Kumar Reddy Accountant,
					Mr. Kashyap Trivedi, Associate Consultant
2.	Visit to all installation location and document verification		Project location - Everest Industries Ltd.	13/06/2024	Mr. Antony Prakash, Solar Engineer
					Mr. Kashyap Trivedi, Associate Consultant
3. Closing meeting			Project location - Everest Industries	13/06/2024	Mr. Kumar Reddy Accountant,
			Ltd.		Mr. Kashyap Trivedi, Associate Consultant

No.	Activity performed during remote inspection	Site location	Date	Project Personnel
1.	Opening meeting	Project location – ABP Ltd.	14/06/2024	Mr. Kumar Reddy Accountant,
				Mr. Kashyap Trivedi, Associate Consultant
2.	Visit to all installation location and document verification	Project location - ABP Ltd.	14/06/2024	Mr. Abhijit Dey, Solar Engineer Mr. Kashyap Trivedi, Associate Consultant

3.	Closing meeting	Project location - ABP Ltd.	14/06/2024	Mr. Kumar Reddy Accountant,
				Mr. Kashyap Trivedi, Associate Consultant

The following parameters were assessed but not limited to:

- An assessment of the implementation and operation of the registered project activity as per the registered PCN V1.0/9/.
- A review of information flows for generating, aggregating, and reporting the monitoring parameters;
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PCN V1.0/9/ and MR V1.0 /10/;
- A cross-check between information provided in the MR V1.0/10/ and data from other sources such as energy generation reports/13/, equipment details, or similar data sources;
- A cross-check of the monitoring equipment including calibration reports and observations of monitoring practices against the requirements of the PCN V1.0/9/ and MR V1.0/10/ and the applied methodology AMS I.D. version 18.0/04/;
- A review of calculations and assumptions made in determining the GHG emission reductions calculation/11/;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.1.3 Interviews

	Interview			Date	Subject
No	Last name	First name	Affiliation		
1.	Reddy	Kumar	Accountant- Puneet Syntax Pvt. Ltd.	13/06/2024	Legal ownership of the project, Implementation of the project, start date and crediting period, Double counting of the carbon credits
2.	Antony	Prakash	Site Engineer – Everest Industries Pvt. Ltd.	13/06/2024	Project boundary, Monitoring plan Electricity generation, meter reading, log
3.	Dey	Abhijit	Site Engineer – ABP Pvt. Ltd.	14/06/2024	book, meter calibration Installation and connection of the solar plant, Solar panel and inverter specification,
4.	Trivedi	Kashyap	Associate Consultant	13/06/2024	Project Overview, PCN, Monitoring Report, Methodology,

Creduce Technologies Pvt. Ltd.	& 14/06/2024	eligibility Baseline Emission Calculation	criteria, emissions, Reduction
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2.1.4 Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of	No. of CAR	No. of FAR
Green House Gas (C		07 t	17.11
Identification and Eligibility of project type	01	NIL	NIL
General description of project activity	NIL	01	NIL
Application and selection of methodologies and standardized baselines	NIL	NIL	NIL
 Application of methodologies and standardized baselines 	NIL	NIL	NIL
Deviation from methodology and/or methodological tool	NIL	NIL	NIL
Clarification on applicability of methodology, tool and/or standardized baseline	NIL	NIL	NIL
Project boundary, sources and GHGs	NIL	NIL	NIL
Baseline scenario	NIL	NIL	NIL
 Estimation of emission reductions or net anthropogenic removals 	NIL	NIL	NIL
Monitoring Report	02	NIL	NIL
Start date, crediting period and duration	01	NIL	NIL
Environmental impacts	NIL	NIL	NIL
Project Owner- Identification and communication	NIL	NIL	NIL
Positive social impact	NIL	NIL	NIL
Sustainable development aspect	NIL	NIL	NIL
Others (please specify)	01	NIL	NIL
Total	05	01	NIL

3 Project Verification findings

3.1 Identification and eligibility of project type

Means of Project Verification	The project is eligible as per UCR General project eligibility criteria and guidance Version 6.0/2/ which is acceptable since the project has not been registered under any other GHG program and the energy generation has begun on 25/08/2014 of Everest Industries Limited and 10/01/2018 of ABP Private Limited. The commissioning certificates/14/ of the ground and roof top mounted power plants involved in the project activity has been verified in this regard. Prior to the commencement of the project activity, the project owner got approval for the installation and operation of ground and rooftop mounted power plants from respective energy development agency in their building premises and PO has signed power purchase agreement with Everest Industries Limited and ABP Private Limited to source the renewable energy generated through installed solar plant. The project delivered real, measurable and additional emission reduction of 7404 tCO ₂ e over the crediting period Project applies an approved CDM monitoring and baseline methodology AMS-I.D Grid connected renewable electricity generation – Version 18.0/4/
Findings	CL 01 was raised
Conclusion	The project is eligible as per the requirements of the UCR General project eligibility criteria and guidance Version 6.0/2/. Further project verification team cross checked the other GHG programmes like Clean Development Mechanism (CDM) Registry, VERRA Registry, Gold Standard (GS) Registry for the information regarding the consistency of the title of the project activity, GPS coordinates, legal Ownership of the Project activity and confirmed that the project was not submitted or registered under any other GHG programmes and non-voluntary non-GHG Programs.

3.2 General description of project activity

Means of Project	The purpose of the project activity is to utilize clean energy to
Verification	generate electricity which would be used to meet the electrical
	demand of the manufacturing facility of PP. The project owner
	installed 522 kW at Everest Industries Limited, 481 kW at ABP
	Private Limited cumulates to 1.003 MW Solar Photovoltaic (SPV)
	panels on the roof top & ground mounted. This consists of
	monocrystalline cells panels and associated connection boxes,
	Inverters, other field equipment. Thus, the project activity generated
	total 8231.629 MWh electricity and displacing 7404 tCO₂e.

	In the absence of the project activity the PO was importing the required electricity from the NEWNE grid to meet its requirement of electrical energy. The NEWNE Indian grid which is dominated by fossil fuel grid connected power plants. The electricity generated from solar plant is consumed by manufacturing facility and injected to the grid of the distribution utility under the mechanism of net metering if any surplus electricity is available after meeting their own consumption. The Location details has been verified during the onsite visit and geo coordinates verified through google earth/maps and found to be correct.
	The project activity installed monocrystalline module panels and associated connection boxes, inverters, and other equipment in project premises. The technical details of solar panels and inverters provided in PCN V1.0/09/ and MR V 2.0 /17/ have been verified during the remote assessment.
	The project owner declared in the PCN V1.0/09/ the lifetime of the project activity is 25 Years as guaranteed by the suppliers of PV panels of the project activity and the same has been verified in the technical data provided by the project owner.
	The project activity described and applied AMS-I. D: "Grid connected renewable electricity generation", version 18 /4/ falls into the small-scale category as per CDM methodology.
Findings	CAR 01 was raised
Conclusion	The description of the project activity is verified to be true based on the review of PCN V1.0/09/, MR 2.0/17/, Commissioning Certificate/14/ of solar plants.

3.3 Application and selection of methodologies and standardized baselines

3.3.1 Application of methodology and standardized baselines

Means of Project Verification	The project activity applied AMS-I. D: "Grid connected renewable electricity generation", version 18/4/ falls into the small-scale category as per CDM methodology.
	Standardized baseline is "In the absence of the project activity, the equivalent amount of electricity would have been imported from the grid (which is connected to the unified Indian Grid system (NEWNE Grid)), which is carbon intensive due to being predominantly sourced from fossil fuel-based power plants" which is as per the project activity and clearly mentioned in PCN V1.0/09/ and MR /10/17/.
Findings	No findings were raised

Conclusion

The methodology applied is appropriately meeting the requirements of UCR General project eligibility criteria and guidance/2/, standardized baseline. The methodology version is correct and valid. The referenced methodology is applicable to project activity.

3.3.2 Clarification on applicability of methodology, tool, and/or standardized baseline

Means of Project Verification	Applicability as per AMS I.D version 18.0	Verifier assessment
	This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: a) Supplying electricity to a national or a regional grid; or b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	The proposed project activity "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited" which incorporates installation and operation of ground and roof top mounted solar photovoltaic power generation for captive consumption through power purchase agreement. b) Is applicable as in the absence of the project activity the total electricity requirements by the manufacturing facility was drawn from grid and produced from fossil fuel fired power plant. This fact was confirmed during the remote
	2. This methodology is applicable to project activities that: a. Install a greenfield plant; b. Involve a capacity addition in (an) existing plant(s); c. Involve a retrofit of (an) existing plant(s); d. Involve a rehabilitation of (an) existing plant(s)/ unit(s); or e. Involve a replacement of (an) existing plant(s).	The project is installation of a greenfield plant.
	3. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: a. The project activity is implemented in an existing reservoir with no change in the volume of reservoir; b. The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the	This criterion is not applicable as the project activity is the installation and operation of ground and roof top mounted solar plants to generate electricity.

power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m2. The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is grated than 4 W/m² 4. If the new unit has both The proposed project is 1.003 MW renewable and non-renewable small scale ground and rooftop components (e.g., a wind/diesel mounted solar power plants i.e., unit), the eligibility limit of 15 MW only component is renewable for a small-scale CDM project power project below 15 MW, thus activity applies only to the the criterion is not applicable to this renewable component. If the project activity. new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW 5. Combined heat and power (co-The project activity does not generation) systems are not involve co-generation. Hence this eligible under this category. criterion is not applicable. 6. In the case of project activities No capacity addition in the existing that involve the capacity addition renewable plant. This is new of renewable energy generation installation of ground and roof top units at an existing renewable mounted solar power plants which power generation facility, the was verified and confirmed through verification added capacity of the units document and added by the project should be interviews with project owner and lower than 15 MW and should be their representatives. physically distinct6 from the existing units. 7. In the case of retrofit or There is no retrofit or replacement replacement, to qualify as a in the project activity, hence it is not small-scale project, the total applicable. output of the retrofitted or replacement unit shall not exceed the limit of 15 MW. 8. In the case of landfill gas, waste This criterion is not applicable as gas, wastewater treatment and the project activity is the installation agro-industries projects. of solar PV panels to generate recovered methane emissions electricity. are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid, then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used for heat

	generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energy production with or without electricity" shall be explored. 9. In case biomass is sourced from dedicate plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	plant and does not involve
Findings	No findings were raised	
Conclusion	The verification team confirms that all the applicability criteria set by the applied CDM methodology/4/ and its eligible tools are met. The relevant information against those criteria is also included in the PCN/9/ and MR/17/. The selected CDM methodology for the project activity is applicable.	

3.3.3 Project boundary, sources and GHGs

	,
Means of Project Verification	As per the applied methodology AMS-I. D version 18.0/4/, the spatial extent of the project boundary includes industrial, commercial facilities consuming energy generated by the system. The components of the project boundary mentioned in the section B.4 of PCN 1.0/9/ were found to be in compliance with para 18 of the applied methodology.
	The project verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified. The project verification team confirmed that all GHG sources required by the methodology have been included within the project boundary.
	It was assessed that no emission sources related to project activity will cause any deviation from the applicability of the methodology or accuracy of the emission reductions.
	The project location is clearly depicted with the help of a pictorial depiction in section A.3. of the PCN V1.0/09/ and duly verified by the project verification team via geographical coordinates, commissioning certificate/14/ of the project activity & power purchase agreement agreement/12/ between M/s Puneet Syntax Private Limited and ABP Private Limited, Everest Industries Limited.
Findings	None
Conclusion	The project verification team has assessed complete information regarding the project boundary provided in PCN V1.0/09/ and MR V2.0 /17/ and verified the evidence from the commissioning

certificate/14/, geographical coordinates and power purchase agreement/12/

The project verification team confirms that the identified boundary, and selected emissions sources are justified for the project activity.

3.3.4 Baseline scenario

Means of Project Verification	The baseline scenario as per paragraph 19 of the applied methodology, prescribed the baseline scenario of the project activity. In the absence of the project activity, the users would have been supplied electricity from the national grid. As per paragraph 19 Baseline emissions for other systems are the product of amount electricity displaced with the electricity produced by the renewable generating unit and an emission factor from the available options of calculation of emission factor as mentioned in AMS-I.D /4/.
Findings	None
Conclusion	The project verification team concluded that the identified baseline scenario reasonably represents what would have occurred in the absence of the project activity. The calculated baseline emission for each vintage year of crediting period is rounded down as per UCR CoU verification standard /3/.

3.3.5 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	The project verification team checked whether the equations and parameters used to calculate GHG emission reductions or net anthropogenic GHG removals for PCN 1.0/9/ and MR /10/17/ is in accordance with applied methodology. Project Verification team checked section B.5 and C.5.1 of the PCN 1.0/9/ and MR/10/17/ 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 done as per the CDM SSC methodology AMS-I.D, Version 18.0/4/.
	$BE_y = EG_{BLy} X EF_{CO2,y}$
	Where,
	BE _y = Baseline Emissions in year y; tCO ₂
	EG _{BLy} = Quantity of net electricity displaced as a result of the implementation of the CDM project activity in year y (MWh)
	$EF_{CO2,y} = Combined$ margin CO_2 emission factor for grid connected power generation in year y.

Project emissions:

As per paragraph 39 of the applied methodology, For most renewable energy project activities, $PE_y = 0$. Since Solar power is a GHG emission free source of energy project emission considered as Zero for the project activity

Leakage Emissions:

As per the paragraph 29 of the applied methodology AMS-I.D Version 18.0, there are no emissions related to leakage in this project.

As per the general project eligibility criteria and guidance/2/; "The project owner has opted UCR recommended emission factor of 0.9 tCO₂/MWh for the 2013-2020 years as a fairly conservative estimate for Indian projects not previously verified under any GHG program. Emission factors for the post 2020 period is to be selected as the most conservative estimate between the national electricity/power authority published data set and UCR default of 0.9 tCO₂/MWh".

Emission reductions

As per Paragraph 30 of the applied methodology, emission reductions are calculated as follows

 $ER_y = BE_y - PE_y - LE_y$

Where:

 $ER_v = Emission reductions in year y (tCO₂)$

 $BE_y = Baseline Emissions in year y (tCO₂)$

 $PE_y = Project emissions in year y (tCO₂)$

 $LE_v = Leakage emissions in year y (tCO₂)$

Year	Total Electricity generated (kWh)	Emission factor (tCO ₂ /MWh)	Total Emission reduction (tCO ₂ e)
2014	2,21,323	0.9	199
2015	6,74,094	0.9	606
2016	6,47,195	0.9	582
2017	6,00,429	0.9	540
2018	12,34,228	0.9	1,110
2019	12,72,852	0.9	1,145
2020	9,72,783	0.9	875
2021	9,42,532	0.9	848
2022	10,34,481	0.9	931
2023	6,31,713	0.9	568
Total	82,31,629	0.9	7404

Findings

No findings were raised

Conclusion

The combined margin emission factor as per CEA database "CO₂ Baseline Database for the Indian Power Sector" current version 19, December 2023/6/ is 0.918 tCO₂/MWh which results into higher emission factor than the UCR recommended emission factor of 0.9 tCO₂/MWh; Hence for entire crediting period UCR default emission factor remains conservative as per UCR General project eligibility criteria and guidance/2/.

Project Verification team confirms that the algorithms and formulae proposed to calculate project emissions, baseline emissions,

leakage and emission reductions in the PCN V1.0/09/ and MR 2.0/17/ is in line with the requirements of the selected methodology AMS-I.D version 18.0/4/

For emission reduction calculation, the assessment team confirms that

All assumptions and data used by the project participants are listed in the PCN V1.0/09/ and MR 2.0/17/ including their references and sources.

All information used by project participants as the basis for assumptions and source of data is correctly defined and interpreted in the PCN V1.0/09/ and MR 2.0/17/

The baseline methodology and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions.

3.3.6 Monitoring Report

Means of Project Verification

The MR/10/17/ submitted by the PP has been verified thoroughly and is in compliance with the applicable methodology and UCR General project eligibility criteria and guidance/2/ for calculation of GHG emission reductions.

The assessment team has reviewed all the parameters in the monitoring plan against the requirements of the applied methodology/4/ and confirmed that monitoring parameters are applied in line with the requirement of the methodology and relevant in the context of the program. The procedures have been reviewed by the assessment team through document review, interviews with the respective monitoring personnel and onsite assessment. Monitoring methodology, data management and calibration of the energy meter were also discussed with project owner.

Calibration of Energy meters details are as follows;

Sr. no.	Meter No.	Class	Calibration date
1.	34164931742	1.0 S	-
2.	04016573	0.5 S	29/11/2023

Findings

CL 02 & CL 03 was raised

Conclusion

The project verification team confirms that,

the MR 2.0/17/ is in compliance with the applicable methodology/4/ and UCR General project eligibility criteria and guidance/2/.

The monitoring parameters reported in PCN V1.0/09/ and MR 2.0/17/ adequately represents the parameters relevant to emission reduction calculation.

The PP has not carried out calibration of the Energy meter at ABP Pvt. Ltd. And Everest Industries Limited for the current monitoring period, latest calibration report/16/ of Everest Industries Limited has been verified to calculate the error.

The number of CoUs generation is calculated based on accurately reported data. The calculation was done using an excel sheet where all the parameters were reported.

UCR recommended emission factor for electricity generation is opted which is conservative.

In the MR 2.0/17/ emission reduction calculations sheet/11/ are correctly calculated and reported. The MR 2.0/17/, meets the requirements of UCR project verification requirements /3/.

3.4 Start date, crediting period and duration

Means of Project Verification	The Commissioning certificate/14/ of the installation of the project activity has been verified as per PCN V1.0/9/ and MR /10/17/.	
Findings	CL 04 was raised	
Conclusion	Crediting period for the agreed verification is from 25/08/2014 to 31/12/2023 which is appropriate as per UCR General project eligibility criteria and guidance/2/.	

3.5 Environmental impacts and safeguard assessment

As The guidelines on Environmental Impact Assessment have been **Means of Project** published by Ministry of Environment, Forests and Climate Change Verification (MoEF&CC), Government of India (GOI) under Environmental notification Assessment 14/09/2006/49/. **Impact** amendments to the notification have been done. The Solar Power projects up to 25 MW are listed in white category, hence the No EIA required. The impact of the project activity on the environmental safeguards has been carried out. Out of all the safeguards no risks were identified to the environment due to the project implementation and operation. And the following have been indicated as positive impacts: Environment Air - CO₂ emissions: The project activity being renewable power generation avoids CO₂ emissions that would have occurred in baseline scenario due to the electricity generation in thermal power plants. Environment - Natural Resources: Replacing fossil fuels with renewable sources of energy. Impacts identified as 'Harmless':

	Solid waste Pollution from E- waste: - Any E-waste including broken panels and batteries if generated from the plant shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Project Waste' and Proper mitigation action has been implemented for waste management. Land use: since the solar plant is ground-mounted in the PO premises; no land is harmed due to the project activity. Emission due to transportation of solar panels: The emissions associated with transport of the modules are insignificant compare to manufacturing facilities. Solid waste Pollution from end-of-life products equipment: - Waste generated from the plant.
Findings	No findings were raised.
Conclusion	The project activity displaces fossil fuel consumption and provides affordable and clean energy. The project has also avoided total 7404 tCO₂e, hence it has positive impact.

3.6 Project Owner- Identification and communication

Means of Project Verification	The information and contact details of the project owner has been appropriately incorporated in the PCN /9/, MR /10/17/ which was checked.
	The legal owner of the project activity has been identified through the commissioning certificate/14/, power purchase agreement/12/.
Findings	No findings were raised
Conclusion	The project verification team confirms that the legal ownership of the project belongs to M/s. Puneet Syntax Private Limited

3.7 Positive Social Impact

Means of Project Verification	NA
Findings	
Conclusion	

3.8 Sustainable development aspects (if any)

Means of Project Verification	Not Applicable
Findings	
Conclusion	The Project has the capability to address SDG 7 Affordable and Clean Energy and SDG 13 Climate Action

3.9 Others (DAA)

Means of Project Verification	The verification team has referred other GHG program to avoid double counting of emission reduction
Findings	CL 05 was raised.
Conclusion	It was verified that the project has not applied for registration and issuance elsewhere and provided the agreement/8/ stating not taking benefits of double counting.

4 Internal quality control:

- 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.
- Technical review is performed by an independent person.

5 Project Verification opinion:

The project verification was conducted on the basis of UCR Program Manual/1/, UCR General project eligibility criteria and guidance/2/, UCR Verification standard /3/, AMS -I.D. -Grid connected renewable electricity generation version 18.0/4/, Project Concept Note (PCN)/9/, Power purchase agreement/12/, Commissioning Certificate/14/, Calibration Report/16/, Monitoring Report (MR)/17/ and documents mentioned in Appendix-2.

Verification team raised 05 Nos. of Clarification Requests (CLs) and 01 Nos. of Corrective Actions Requests (CARs) and all the queries were closed satisfactorily.

It is hence certified with reasonable level of assurance that the emission reductions from the project Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited (UCR ID - 353) for the period 25/08/2014 to 31/12/2023 amounts to **7404** CoUs (7404 tCO₂e) as per the UCR Verification standard /3/.

6 Competence of team members and technical reviewers

No.	Last name	First name	Role and Affiliation	Technical Competence
1.	Mandliya	Shyam	Team Leader and Technical Expert - NSPL	Mr. Shyam Mandliya holds master's degree in Chemical Engineering. He has expertise in environmental audits. He has performed environmental monitoring of different industries in Gujarat for air, water, and hazardous waste. He has also contributed to the community-based biogas project development.
2.	Prajapati	Divya	Technical Reviewer - NSPL	Ms. Divya Prajapati is having M. Tech. In Environmental Engineering. She is experienced in performing environmental impact assessments of various industries. She has also conducted Environmental Audit of CETP and TSDF sites and quantified GHG emissions from Solid Waste Disposal sites.

Appendix 1: Abbreviations

Abbreviations	Full texts
UCR	Universal Carbon Registry
СРСВ	Central Pollution Control Board
CERC	Central Electricity Regulatory Commission
CEA	Central Electricity Authority
NSPL	Naturelink Solutions Private Limited
MR	Monitoring report
PCN	Project Concept Note
VR	Verification Report
VS	Verification Statement
DAA	Avoidance of Double Accounting Agreement
COD	Commercial Operation Date
PO	Project Owner
PA/ PP	Project Aggregator / Project Proponent
PPA	Power Purchase Agreement
ER	Emission Reduction
CoUs	Carbon offset Units
tCO ₂ e	Tons of Carbon Dioxide Equivalent
kWh	Kilo-Watt Hour
MWh	Mega-Watt Hour
kW	Kilo-Watt
MW	Mega-Watt
CDM	Clean Development Mechanism
SDG	Sustainable Development Goal
CAR	Corrective Action Request
CL	Clarification Request
FAR	Forward Action Request
GHG	Green House Gas

Appendix 2: Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	UCR	UCR Program Manual	Version 4.0, August 2022	UCR website
2.	UCR	UCR General project eligibility criteria and guidance (CoU Standard)	Version 6.0, August 2022	UCR website
3.	UCR	UCR Program Verification standard	Version 2.0, August 2022	UCR website
4.	CDM	AMS-I. D – "Grid connected renewable electricity generation"	Version 18.0	CDM website
5.	CEA	Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2019	Dated 23/12/2019	-
6.	CEA	CO ₂ baseline database for the Indian Power sector	Version 19.0 dated December 2023	-
7.	PA	Communication agreement between PP and PO	Dated 01/03/2022	PA
8.	Creduce	Assurance to avoid double accounting by project owners	Double accounting agreement signed on 27/06/2024	PA
9.	Creduce	PCN V 1.0	Dated 12/08/2023	PA
10.	Creduce	MR V 1.0	Dated 08/05/2024	PA
11.	Creduce	Emission reduction excel – "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited"	Version 1.0 dated 08/05/2024	PA
12.	РО	power purchase agreement with 1. ABP Pvt. Ltd. 2. Everest Industries Ltd.	 Dated 28/02/2017 28/01/2014 	PA
13.	РО	Monthly Generation details	Excel sheet of monthly generation	РО
14.	Govt. of west Bengal Govt. of Tamilnadu	 Project Commissioning and installation certificate of ABP Pvt. Ltd. Project Commissioning and installation certificate of Everest Industries Ltd. 	 Dated 09/01/2018 Dated 25/08/2014 	PA

No.	Author	Title	References to the document	Provider
15.	Fronius	Technical specification	-	PA
16.	CEEP	Meter test reports	CEEP/EM/23/751 Dated. 29/11/2023	PA
17.	Creduce	MR V 2.0	Dated 24/06/2024	PA
18.	Creduce	Emission reduction excel – "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited"	V 2.0 dated 26/062024	PA
19.	NSPL	Trimmed Emission reduction excel- "Bundled Small Scale Solar Power Project by M/s Puneet Syntex Private Limited"	V3.0 dated 01/07/2024	NSPL

Appendix 3: Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

CL ID	01	Section no.: 3.1	Identification	of	Eligibility	and	Date: 15/05/2024
Description of CL							
Commissioning certificate of ABP and Godrej Plant is missing as per the requirements of UCR CoU standard Ver 6.0 (page no. 4)							
Project Owner's response Date: 28/06/2024							
Commissioning certificate of ABP and Godrej Plant has been provided							Dato: 20/00/2021
Commission	ning ce	•	BP and Godrej i	Plar	nt has beer	n prov	
		ertificate of AL	BP and Godrej i	Plar	nt has beer	n prov	

CL ID	02	Section	Monitoring Report	Date: 15/05/2024
		no.: 3.3.6		

The PP has provided the commissioning certificates and hence CL 01 has been closed.

Description of CL

In the section C.10 of MR Version 1.0 dated 08/05/2024 details of calibration & calibration certificate of ABP, Everest and Godrej plant is missing for the entire monitoring period as per the requirements of the UCR CoU standard Ver.6 (page no. 8 to 10)

Project Owner's response

UCR Project Verifier assessment

The calibration of energy meters installed at ABP, Godrej and Everest industries has not been carried out, however latest calibration report of Everest industries has been sent.

Documentation provided by Project Owner

Calibration certificate of energy meter of Everest Industries Ltd.

UCR Project Verifier assessment

the PP has not carried out calibration of energy meters installed. As per the CEA, the calibration of the energy meter shall be carried out in every five-year time period. Keeping that in front, the total emission reductions are trimmed as per the IS 14697:1999 considering maximum error of 0.5 S & 1.0 S class energy meter of Everest Industries and ABP Pvt. Ltd respectively and trimmed emission reduction calculation sheet is prepared. Hence, CL 02 is closed.

Date: 01/07/2024

Date: 28/06/2024

Date: 01/07/2024

CL ID	03	Section	Monitoring report	Date: 16/06/2024
		no.: 3.3.6		

Description of CL

The online assessment was carried out ABP Pvt. Ltd. And Everest Industries Ltd. on 13/06/2024 and 14/06/20254, however kindly justify the exclusion of online assessment of Godrej industries ltd.

Date: 28/06/2024

Date: 01/07/2024

Date: 28/06/2024

Date: 01/07/2024

Project Owner's response

The solar plant installed at Godrej Industries Ltd. has not been in working condition, therefore we have decided to exclude the Godrej Industries Ltd. from the bundled project activity. We have also not included Godrej Industries Ltd. to claim Carbon Offsets. Revised ER and MR is provided.

Documentation provided by Project Owner

MR V. 2.0 dated 26/06/2024

UCR Project Verifier assessment

The Justification provided by PP has been found satisfactory hence, CL 03 stands closed.

CL ID	04	Section	Strat date, crediting period and	Date: 15/05/2024
		no.: 3.4	duration	

Description of CL

Please clarify, the start date of the crediting period is 25/08/2014 but energy generation data is provided from October 2014.

Project Owner's response

The revised excel sheet with updated data of August & September is provided.

Documentation provided by Project Owner

Revised Energy generation data

UCR Project Verifier assessment

Justification provided by PP has found to be satisfactory, hence CL 04 stands closed.

CL ID	05	Section	Others (DAA)	Date: 15/05/2024
		no · 3 0		

Description of CL

An agreement stating that the project activity will not cause double counting as per clause 1.8, Universal Carbon Registry Program Manual (Ver 4.0) August 2022.

Date: 28/06/2024

Date: 01/07/2024

Date: 28/06/2024

Date: 01/07/2024

Project Owner's response

Double Accounting Agreement is provided

Documentation provided by Project Owner

Double Accounting Agreement

UCR Project Verifier assessment

Double accounting agreement provided by PP has been found conforming, hence CL 05 is closed.

Table 2. CARs from this Project Verification

CAR ID	01	Section	General	description	of	project	Date:	15/05/2024
		no.: 3.2	activity					

Description of CAR

In the section A.1, A.1.2, A1.3, A.2, B.1.1, B1.2, C.2, of MR Version 1.0 dated 08/05/2024 and A.1.1, A.1.2 B.2 of PCN V1.0 dated 12/08/2023; total installed capacity of the bundled project activity is mentioned incorrectly as per the technical specifications provided.

Project Owner's response

Total installed capacity of the project has been corrected and revised MR is provided

Documentation provided by Project Owner

MR V2.0 dated 24/06/2024

UCR Project Verifier assessment

The PP has corrected the details in MR and hence the CAR-01 has been closed.

Table 3. FARs from this Project Verification

FAR ID		Section no.		Date:		
Description of FAR						
Project Owner's response Date:						
Documentation provided by Project Owner						

