Project Verification Report

2021

COVER PAGE

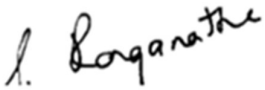
Project Verification Report Form (VR)

Complete this form in accordance with the instructions.

BASIC INFORMATION	
Name of approved UCR Project Verifier / Reference No.	S.Ranganathan (Independent Verifier)
Type of Accreditation	☐ CDM or other GHG Accreditation ☐ ISO 14065 Accreditation ☒ UCR Approved Verifier
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	01 Energy industries (Renewable/Nonrenewable Sources)
Validity of UCR approval of Verifier	From 21 Jan 2022 onwards
Completion date of this VR	15 Dec 2023
Title of the project activity	**1 MW Solar Power Plant by Event Green Power Pvt Ltd, Tuticorin, Tamil Nadu**
Project reference no. (as provided by UCR Program)	UCR ID No: 332
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.)	eClouds Energy LLP.

Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	eClouds Energy LLP.
Country where project is located	India
Applied methodologies (approved methodologies by UCR Standard used)	1. AMS-I.D.: "Grid connected renewable electricity generation", version 18
GHG Sectoral scopes linked to the applied methodologies	01 Energy industries (Renewable/Non-Renewable Sources)
Project Verification Criteria: Mandatory requirements to be assessed	☒ UCR Standard ☒ Applicable Approved Methodology ☒ Applicable Legal requirements /rules of host country ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Do No Harm Test ☒ Emission Reduction calculations ☒ Monitoring Report ☒ No GHG Double Counting ☐ Others (please mention below)
Project Verification Criteria:	☒ Environmental Safeguards Standard and do-

Optional requirements to be assessed	no-harm criteria ☒ Social Safeguards Standard do-no-harm criteria
Project Verifier's Confirmation: The *UCR Project Verifier* has verified the UCR project activity and therefore confirms the following:	The UCR Project Verifier S Ranganathan certifies the following with respect to *the UCR Project Activity* 1 MW Solar Power Plant by Event Green Power Pvt Ltd, Tuticorin, TamilNadu. ☐ The Project Owner has correctly described the Project Activity in the Project Concept Note (version 2.0 dated *1/12/2023 and* the approved methodology [*1. AMS-I.D.: "Grid connected renewable electricity generation", version 18,* and meets the methodology applicability conditions and has achieved the estimated GHG emission reductions, complies with the monitoring methodology and has calculated emission reductions estimates correctly and conservatively. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated 1749TCO_{2e}, as indicated in the PCN, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable UCR rules, including ISO 14064-2 and ISO 14064-3. ☒ The Project Activity is

	not likely to cause any net-harm to the environment and/or society ☒ The Project Activity complies with all the applicable UCR rules[1] and therefore recommends UCR Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	UCR Verification report of Project ID 332
Name of the authorised personnel of UCR Project Verifier and his/her signature with date	S. Ranganathan  09 January 2024

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PROJECT VERIFICATION REPORT

Executive summary

The verification activity was contracted by the project aggregator eClouds Energy LLP . ,to carry out independent verification of the UCR project titled 1 MW Solar Power Plant by Event Green Power Pvt Ltd, Tuticorin, TamilNadu , located in Village: Pasuvanthanai, Taluk: Ottapidaram, District: Tuticorin, State: Tamil Nadu, Country: India bearing UCR Project Registration Number 332 to verify and confirm the quantity of CoUs generated by the project activity during the monitoring period 27/07/2022 to 30/09/2023 (both days inclusive)

The total emission reduction achieved during the stated monitoring period based on the calculations, the monitoring report and supporting documents is found to be 1810 CoU. There are no leakages and project emissions.

The project activity is complying with the requirements of the chosen small scale methodology AMS I.D. version 18 of CDM /18/ and UCR verification standard /3/ for the project activity.

The project activity, as described in the PCN /4/ consists of 2184 Solars photovoltaic modules totaling to a capacity of 1MW located at in Pasuvanthinai Village, Ottapidaram Taluk, Tuticorin District., Tamil Nadu.

The electricity generated from project activities is injected to the grid. The electricity supplied to the grid for the monitoring period is 2012 MWh/8/.

Project Verification team, technical reviewer and approver

The verification was carried out by me, (S.Ranganathan) who is a qualified validator, verifier technical expert/reviewer for SECTORAL SCOPE - 01 Energy industries (Renewable/Non-Renewable Sources).

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	Seshan	Ranganathan	Independent Verifier	Yes	Yes	Yes
2.	Validator	Seshan	Ranganathan	Independent Verifier	Yes	Yes	Yes
3.	Technical Expert	Seshan	Ranganathan	Independent Verifier	Yes	No	No

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		**NA**		
…	**….**				
…	Approver				

Means of Project Verification

Desk/document review

The documents were reviewed to confirm the project activity is as per Project Concept Note version 2 dated 14/08/2023 /4/ and to confirm the data provided in the Monitoring Report version 02 dated 01/12/2023 /10/ for the period 27/07/2022 to 30/09/2023 both days included. Please note the emission reductions are claimed only from 1st August 2022 The documents reviewed were Energy wheeling Agreement, /6/, the JMRs /7/, the Calibration Reports , Test certificates of meters / and SCADA generation report.
The list of documents reviewed as part of the verification activity is available under the section Document reviewed or referenced in the subsequent sections of this report.

Off-site inspection

Date of off site inspection: DD/MM/YYYY to DD/MM/YYYY	No site visit was conducted and this meets the UCR guidelines.

No.	Activity performed Off-Site	Site location	Date
1.			
…			

Interviews

No.	Interview			Date	Subject
	Last name	First name	Affiliation		

1.		Jayaprakash Suresh Akshay Muralidharan	eClouds Energy LLP Event Green Power Pvt Ltd Event Green Power Pvt Ltd	21/11/2023	1) Project location 2) Commissioning of Project 3) Metering System 4) Applicability of methodology 5) the monitoring period and Emission reduction calculations 6) Environmental and Social impacts

Sampling approach

The monitoring parameter is the electricity generated. The verification was carried out based on the Metering Report that was made available for every month of the monitoring period.

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

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)			
Identification and Eligibility of project type	-	-	-
General description of project activity	CL-1	-	-
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		-	-
- Project boundary, sources and GHGs		-	-
- Baseline scenario		-	-
- Estimation of emission reductions or net anthropogenic removals	CL-4 CL-5 CL-6	CAR1	-
- Monitoring Report	CL-2 CL-3		-
Start date, crediting period and duration	-	-	-
Environmental impacts	-	-	-
Project Owner- Identification and communication	-	-	-
Others (please specify)-Double accounting	CL4	-	-
Total	6	1	-

Project Verification findings

Identification and eligibility of project type

Means of Project Verification	The project activity is registered under UCR. The project identification number is 332 as could be confirmed from the UCR website The project activity is a Solar Power Electricity generation project having a total installed capacity of 1MW located in Tuticorin district of Tamil Nadu INDIA The project activity started electricity generation from 27/07/2022 The total project capacity is 1 MW and hence falls in the Small scale category of project activities as per CDM. The project activity falls under SECTORAL SCOPE - 01 Energy industries (Renewable/Non-Renewable Sources) and has adopted AMS. I.D. (Title: "Grid connected renewable electricity generation", version 18) /18/ https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTXFQQOFQQH4SBK
Findings	The project activity is described in the PCN version 02 dated 01/12/2023 /4/
Conclusion	The project activity falls under SECTORAL SCOPE - 01 Energy industries (Renewable/Non-Renewable Sources) which is in the list of approved scopes as per UCR standard. The project activity does not fall under the Ineligible methodologies given under Table 1 of UCR Standard./2/ The project activity is commissioned after 1 Jan 2002 and so meets the requirement of Project Start Date as per UCR Standard. The verification period is from 27/07/2022 to 30/09/2023 and so meets the requirement of vintage as per UCR Program Verification Standard /3// , UCR General Project Eligibility Criteria standard /2/ and complies with all requirements of UCR Program Manual/1/

General description of project activity

Means of Project Verification	This project activity is generation of electricity by harnessing the solar energy, making use of solar photovoltaic technology. The proposed project activity involves installation of Solar photovoltaic power generation projects with a total capacity of 1 MW consisting of 2184 photovoltaic modules located at Pasuvanthinai village inTuticorin District Tamil Nadu India. .	
Findings	The operation agreement with the utility mention the commissioning date of the project as 27/07/2022 which is the date of commissioning of the project activity.	
Conclusion	The documents perused confirm that the project is as described in the PCN /4/ and MR /10/.	

Application and selection of methodologies and standardized baselines

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

Means of Project Verification	The project activity falls under SECTORAL SCOPE - 01 Energy industries (Renewable/Non-Renewable Sources) and has adopted AMS. I.D. (Title: “Grid connected renewable electricity generation”, version 18) https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTXFQQOFQQH4SBK for the project activities 1 to 5 which supplied the electricity generated tot the grid.	
Findings	The appropriate approved methodology of CDM /18/ has been applied	
Conclusion	The applied methodology meets the requirements of UCR. The latest version of the methodology AMS-ID version is suedand the saem is valid.	

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

Means of Project Verification	The applicability of the chosen small scale methodology AMS I.D. version 18 UCR verification standard for the project activity was verified.	
Findings	The project activity meets the applicability conditions of the adopted methodology.	
Conclusion	The monitoring period of the project activity is from 27/07/2022 to 30/09/2023 /10/. The project activity meets all the requirements of the CDM small scale methodology and no clarification is sought with respect to this..	

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

Means of Project Verification	PCN,MR,PPA	
Findings	The project boundary is clearly defined in the PCN and MR	
Conclusion	The project boundary is clearly delineated in the PCN and meets the requirements of adopted methodology of CDM AMS. I.D. (Title: “Grid connected renewable electricity generation)/18/ and Project Eligibility Criteria and Guidance, UCR standard /2/	

(.a.iv) Baseline scenario

Means of Project Verification	PCN, MR, General Project Eligibility Criteria and Guidance, UCR standard, adopted methodology of CDM AMS. I.D. (Title: “Grid connected renewable electricity generation”, version 18),	
Findings	The identified baseline scenario is verified to be correct	
Conclusion	In the absence of the project activity is the equivalent amount of electricity that would have been generated by the operation and/or insertion of more- GHG-intensive grid-connected power plants. Hence, baseline scenario of the project activity is the grid-based electricity system, The identified baseline scenario meets the requirements of General Project Eligibility Criteria and Guidance, /2/ and UCR verification standard /3/.	

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

Means of Project Verification	Metering report, UCR standard,.and excel calculation sheet
Findings	Furnished information is verified to be correct
Conclusion	The net generation of electricity of the project activity for the monitoring period matches with that in the metering report. The emission factor adopted is appropriate.. The net emission reduction for the monitoring period 27/07/2022 to 30/09/2023 is 1810 tCO_2 eq (rounded down) or CoUs./8/Please note the emission reduction is claimed from 1st August 2022 only. /9/

(.a.vi) Monitoring Report

Means of Project Verification	The Meter Readings, ER calculation sheet calibration reports, MR & PCN
Findings	Furnished information is verified to be correct
Conclusion	The parameters grid emission factor is fixed ex ante and the net electricity exported to the grid are monitored as required by the adopted methodology of CDM AMS. I.D. (Title: "Grid connected renewable electricity generation", version 18). The grid emission factor adopted is as per UCR that is 0.9 tCO_2/MWh. The calculation of CoU generated for the monitoring period is verified to be correct and has been done adopting a conservative approach. The meters have valid calibration covering the monitoring period. The monitoring report adopts the latest template of UCR/10/ and meets the requirements of UCR verification standard /2/.

Start date, crediting period and duration

Means of Project Verification	PCN, MR, Commissioning certificates, Metering report
Findings	The furnished information is verified and found to be correct.
Conclusion	The monitoring period is from 27/07/2022 to 30/09/2023. The operation agreement with the utility mention the commissioning date of the project as 27/07/2022 which the date of commissioning of the project activity. The start date, the monitoring period are reported correctly and meet the requirements of the UCR Program manual /1/,UCR General Project Eligibility Criteria and Guidance /2/ and UCR verification standard /3/.

Positive Environmental impacts

Means of Project Verification	PCN and interview
Findings	Nil. Furnished information is verified and found to be correct.
Conclusion	The project activity creates positive impact on the environment and meets the requirements of UCR Program manual /1/, UCR

	General Project Eligibility Criteria and Guidance /2/ and UCR verification standard /3/.

Project Owner- Identification and communication

Means of Project Verification	The PCN, JMR, Plant operations agreement
Findings	Nil. The furnished information is verified and found to be correct
Conclusion	The project owner is Event Green Power Private Limited. India, as verified from the JMR /7/ and Power purchase agreement/6/ given for the project .

Positive Social Impact Event Green Power Private Limited.

Means of Project Verification	Project activity has provided employment to the local population during the construction and implementation phase of the project activity. The project activity has created positive social impact in the region
Findings	Nil
Conclusion	Project has an overall positive social impact.

Sustainable development aspects (if any)

Means of Project Verification	N/A
Findings	
Conclusion	

Internal quality control

>> The following ensure quality control of the verification

- It is ensured that there is no conflict of interest as the verifier has no other engagement related to the project activity either with the aggregator or with the project owner directly or otherwise.
- Verification activity is carried out by experienced personnel.

Project Verification opinion

The verification of the project activity titled '1 MW Solar Power Plant by Event Green Power Pvt Ltd, Tuticorin, TamilNadu ' is carried out based on the UCR Protocol for the monitoring period 27/07/2022 to 30/09/2023. The baseline of the project activity is with reference to UCR Protocol Standard Baseline adopted by the CDM Small Scale Methodology : AMS-I.D./18/: "Grid connected renewable electricity generation", version 18.
The verification is based on the Project concept note version 02 dated 01/12/2023 /4/ Monitoring report version 2 dated 01/12/2023 /10/
In my opinion the emission reduction for the monitoring period is fairly stated and the emission reductions have been correctly calculated as per the adopted methodology and UCR standard version 3.
I am able to certify the emission reduction from the project activity 1 MW Solar Power Plant by Event Green Power Pvt Ltd, Tuticorin, TamilNadu l ' for the monitoring period 27/07/2022to 30/09/2023 is 1810 tCO_2 eq

Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CL	Clarification Request
COU	Carbon Offset Units
FAR	Forward Action Request
GHG	Green House Gases
kWH	Kilo Watt Hour
tCO_2eq	Tons of Carbon dioxide Equivalent
PA	Project Aggregator
MR	Monitoring Report
N/A	Not Applicable
PCN	Project Concept Note
SDG	Sustainable Development Goal
SPV	Solar Photo Voltaic
UCR	Universal Carbon Registry
VR	Verification Report

VS	Verification Statement

Competence of team members and technical reviewers

>> S.Ranganathan, holds a Bachelor's Degree in Chemical Engineering and has done diploma course in Management and completed the graduate ship course in Industrial Engineering and has an overall working experience of around thirty eight years. He has around twenty four years experience in Chemical process industry (fertilizer & petrochemical manufacturing) covering production, technical services including energy audits and efficiency studies, waste heat recovery, efficiency studies of boilers, power plants, safety audits and pollution control activities including waste water treatment, project management, corporate planning, sales, logistics in fertilizer & petrochemical industry. With respect to the thermalpower plant the job assignment included the monitoring of flue gas exit temperatures, excess air used efficiency of fuel additives, condition of boiler refractory, insulation of steam lines etc. The experience alsoincludes 5 years in process design & engineering for chemical process industry. He is qualified validator, verifier and Technical Reviewer for GHG projects (CDM, Gold Standard, VCS, UCR). He has completed the ISO lead auditor course on Quality Management System, Environmental Management System,Energy Management System, Occupational Health Safety Management System. His qualification, industrial experience and experience in CDM demonstrate his sufficient sectoral competence in areas of
(a) 1.1 Thermal energy generation from fossil fuels and Biomass including thermal electricity from solar (b) 1.2 Energy generation from renewable energy sources (c) 2.2 Heat distribution (d) 5.1/11.1/12.1 Chemical Processes Industries and € 13.1 Waste handling and disposal.
He has done validation/verification and Technical review of over two hundred projects.

Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UCR	Universal Carbon Registry Program Manual Ver 4.0		Verifier
2	UCR	General Project Eligibility Criteria and Guidance Version 6.0		Verifier
3	UCR	UCR Program Verification Standard version 2		Verifier
4	UCR	Project Concept Note version 2.0 dated 01/12/2023		Aggregator
5	UCR	Verification Report Format		Verifier
6	TANGEDCO	Energy Wheeling Agreement 16th Aug 2022.		Aggregator
7	TANGEDCO	JMR FOR THE MONITORING PERIOD 1/8/22 TO 30/09/2023		Aggregator
8	EClouds Energy LLP	ER calculation sheet EB import export of EGP Plant 1 for the period 27 July 22 to 30 Sep 2023		Aggregator
10	EClouds Energy LLP	MR for the period 27/07/2023 to 30/09/2023 version 02 dated 01/12/2023		Aggregator
14	EClouds Energy LLP	Photos of the installation		Aggregator
18	UNFCCC	CDM Small Scale Methodology : AMS-I.D.: "Grid connected renewable electricity generation", version 18.		Verifier
20	CEA	2021-22 CO2 database final_VM281222_Publis		Aggregator

21	TANGEDCO	Meter calibration dated 27/07/2022		
22	CEA	Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006	17/.03/2006	Aggregator

Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

CL ID	01	**Section no.**	PCN&MR	**Date:** 03/11/2023
Description of CL				
Please indicate decimal as a point and use subscript for chemical formula as required throughout the PCN and MR				
Project Owner's response				**Date:** 09/11/2023
Clarification is provided in PCN and MR, as requested				
Documentation provided by Project Owner				
Revised PCN & MR				
UCR Project Verifier assessment				**Date:** 12/12/2023
THIS has been corrected in the revised MR & PCN. CL1 is closed.				

CL ID	02	**Section no.**	B4 of PCN	**Date:** 03/11/2023
Description of CL				
Diagram showing the project boundary is not seen in section B.4. of the PCN				**Date:** 09/11/2023
Project Owner's response				
Block diagram has been added in the revised PCN.				
Documentation provided by Project Owner				**Date:** 12/12/2023
Revised PCN				
UCR Project Verifier assessment				
This has been included in the revised PCN version 2 date 1/12/2023.. CL2 is closed.				

CL ID	03	**Section no.**	C.9 of MR	**Date:** 03/11/2023
Description of CL				
Comparison of the GHG emissions achieved during the current monitoring period is not compared against the estimated reductions for the corresponding period indicated in the PCN				
Project Owner's response				**Date:** 09/11/2023
The comparision has been provided in the revised MR				
Documentation provided by Project Owner				
Revised MR				
UCR Project Verifier assessment				**Date:** 12/12/2023
The comparision has been provided in the revised MR The emission reduction achieved is lower than that estimated for the monitoring period. CL 3 is closed.				

CL ID	04	**Section no.**	C10 of MR	**Date:** 03/11/2023
Description of CL				

The monthly bills/invoices for the month of Arpril 23 shows the export as 125746 kWH.Similarily the value for Aug 23 is 188731 whereas that in excel is 188420.The values given for every month in the excel amy be crosschecked with the monthly statement provided by the TANGEDCO
Project Owner's response **Date:** 09/11/2023
The Net Generation is calculated as Net Export – Net Import. So the variation was due to Net Import is higher than Net Export the excel sheet has been revised.
Documentation provided by Project Owner
Revised MR
UCR Project Verifier assessment **Date:** 12/12/2023
The revised mR address this and the extimate of emission reduction is done in a conservaticve manner. CL is closed

CL ID	05	**Section no.**	C10 of MR	**Date:** 03/11/2023
Description of CL				
CL-5 The calibration certificates of the meters relevant to the current monitoring period is not available. The same to be included in the MR against the monitored parameter				
Project Owner's response				**Date:** 09/11/2023
The calibration details are included in revised MR				
Documentation provided by Project Owner				
Revised MR				
UCR Project Verifier assessment				**Date:** 12/12/2023
The meter calibration details are provided in the revised MR. CL05 is closed.				
CL ID	06	**Section no.**	PCN&MR	**Date:** 03/11/2023
Description of CL				
CL-6 In the excel sheet giving ER calculations cell7,gives conversion to Mwh and ER is calculated based on this.It is seen that Mwh is rounded off. It can be rounded down or truncated.				
Project Owner's response				**Date:** 09/11/2023
The ER calculated and rounded down to the nearest value.				
Documentation provided by Project Owner				
Revised MR & Excel				
UCR Project Verifier assessment				**Date:** 12/12/2023
The emission reductions are rounde down tin the revised exscel and MR.s CL06 is closed.				

Table 2. CARs from this Project Verification

CAR ID	01	**Section no.**	B.8. of	**Date:** 03/11/2023
Description of CAR				
The emission factor recommended by UCR is for the period 2014-2020.Please justify the adoption of this value for the current monitoring period of 27/07/2022 to 30/.9/2023.				
Project Owner's response				**Date:** 09/11/2023
Emission factor for the year 2022 as per the CEA database ver 18 is 0.915 t/Co_2 per MWH we have adopted the value 0.9 tCo_2 per MWH is conservative in the estimation of emissions.				
Documentation provided by Project Owner				

Revised PCN/MR
UCR Project Verifier assessment
The emission factor of 0.9 tCo_2 per MWH used is accepted as it is conserbvative in the estimation of emission reduction when compared to the use of national data.

Table 3. FARs from this Project Verification

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