Verification Report

UCR ID: 457

Prepared by

Naturelink Solutions Pvt. Ltd.

Title	**10 MW Captive Power Project by S. C. E. P. L**
Project Owner	**M/s. Shreeji Coke and Energy Pvt. Ltd.**
Project Location	**R.S.NO. 5/P-7 and 12, New R.S.NO. 68 to 75, Taluka- Jodiya, District- Jamnagar, Gujarat. 361001** **Coordinates: 22°34'26.1" N 70°13'42.0" E**
Date	**03/05/2025**

COVER PAGE **Project Verification Report Form (VR)**	
BASIC INFORMATION	
Name of approved UCR Project Verifier / Reference No.	Naturelink Solutions Pvt. Ltd.
Type of Accreditation	☐ CDM Accreditation ☐ ISO 14065 Accreditation ☒ UCR Approved Verifier
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	Sectoral Scope: 04 (Manufacturing Industries)
Validity of UCR approval of Verifier	May - 2022 onwards
Completion date of this VR	03/05/2025
Title of the project activity	10 MW Captive Power Project by S. C. E. P. L.
Project reference no. (as provided by UCR Program)	457
Name of Entity requesting verification service	Creduce Technologies Pvt. Ltd. (Aggregator) Shreeji Coke and Energy Pvt. Ltd. (Project Owner)
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Mr. Shailendra Singh Rao shailendra@creduce.tech Mr. M. Venkata Madhava Rao srgmpower@shreeji.in
Country where project is located	India
Applied methodologies	AMS-III.Q.: “Waste Energy Recovery”, Version 06.1
Sectoral Scope(s):	04 Manufacturing industries

Project Verification Criteria: Mandatory requirements to be assessed	☒ UCR Verification Standard ☒ Applicable Approved Methodology ☐ Applicable Legal requirements/rules of the host country ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Do No Harm Test ☒ Emission Reduction calculations ☒ Monitoring Report ☒ No GHG Double Counting ☐ Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☐ Social Safeguards Standard do-no-harm criteria
Project Verifier's Confirmation: The *UCR Project Verifier* has verified the UCR project activity and therefore confirms the following:	The UCR-approved verifier Naturelink Solution Pvt. Ltd., verifies the following with respect to the UCR Project Activity "10 MW Captive Power Project by S. C. E. P. L." ☒ The project aggregator has correctly described the project activity in the Project Concept Note (dated 23/08/2024) including the applicability of the approved methodology AMS-III.Q/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. ☒ The project activity is likely to generate GHG emission reductions amounting to the estimated 50280 tCO_2e, as indicated in the monitoring report/10/11/ which are in addition to the reductions that are likely to

	occur in the 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: 457 Version: 1.0 Date: 03/05/2025
Name of the authorised personnel of UCR Project Verifier and his/her signature with date	 Mr. Trapti Joshi GHG Assessor Naturelink Solution Pvt. Ltd. Date: 03/05/2025

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1 Project Verification Report

1.1 Executive Summary

The verification work has been contracted by project aggregator Creduce Technologies Private Limited to perform an independent verification of its UCR project titled **"10 MW Captive Power Project by S. C. E. P. L.", UCR approved project ID:457**, to establish CoUs generated by the project over the crediting period from 01/09/2023 to 31/12/2024 (both days included).

Verification for the period: 01/09/2023 to 31/12/2024

The total GHG emission reductions over the crediting / verification period stated in the Monitoring Report (MR), 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-III.Q – "Waste Energy Recovery" version 06.1. The verification was conducted remotely by way of video calls, by onsite inspection of the plant and submission of documents for verification through emails.

It is certified that the emission reductions from the 10 MW Captive Power Project by S. C. E. P. L. (UCR ID – 457) for the period 01/09/2023 to 31/12/2024 amounts to **50280** CoUs (**50280 tCO_2e**).

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/9/.
2. To verify the implemented monitoring plan with the registered PCN/9/ 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.
6. Agreement stating assurance to avoid double accounting for the project to be verified, along with required proof.

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 waste heat recovery electricity power generation activity which incorporates installation and operation of waste heat recovery boiler (WHRB) having capacity of 10 MW manufactured and supplied Thermax Limited Project respectively in district Jamnagar of the state of Gujarat in India. The details of the project activity are verified with the document review and remote inspection.

The Coke Oven Waste Heat Recovery (WHR) Boiler system, where hot flue gases from coke oven batteries are directed through the boiler and connected to an MS/RCC chimney via an ID fan. The boiler is a two-pass natural circulation type, with the first pass housing radiation sections, screens, super heaters, and evaporators, and the second pass containing an economizer within a steel casing. Soot blowers are included to clean the heating surfaces, especially due to the sticky nature of coke oven gas dust. Insulation is provided to minimize heat loss and maintain surface temperatures 20°C above ambient.

Additionally, refractory materials are used from the coke oven battery outlet to the boiler inlet, and dampers are installed for isolation during normal operations and shutdowns.

The electricity generated is used in ferroalloy and coke oven plant operations within the plant premises.

The technical specification is listed below;

Boiler	Type of boiler	Travagrate Boiler (Travelling Grate Boiler)
	Make of Boiler	Thermax Ltd, B&H
	Specification Standard	45 TPH
	Heat Transfer area	2321.4 m^2
	Rotor Speed Range	7.03 to 13.91 rpm
	Steam Flow	45 TPH
	Rated steam temperature outlet	485+/- 5 ℃
	Present steam temperature outlet	480 ℃
Steam Turbine	Type of Turbine	EC (Extraction cum condensing)
	Specification Standard	Rated speed 10759 RPM
	Number of Turbine Stages	13
	Turbine outlet steam pressure	0.183Kg/cm2
	Turbine outlet steam temperature	58 ℃
Condenser	Type	Air cool condenser
	Steam flow	45
	Design vacuum	0.17 Kg/cm^2(a)

As mentioned in the monitoring report/10/11/ and emission reduction calculation sheet/12/ submitted for verification, the project replaces anthropogenic emissions of greenhouse gases (GHGs) estimated to be approximately 50280 tCO_2e for the said period under verification.

The project is a small-scale activity. The methodology applied in the monitoring report is verified against the AMS-III. Q, "Waste Energy Recovery", Version 06.1/4/ Verified total emission reduction (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	01/09/2022
Start date of this Monitoring Period	01/09/2023
Carbon credits claimed up to	31/12/2024
Leakage Emission	-
Project Emission	-
Total ERs generated (tCO_2e)	50280

1.3 Project Verification team, technical reviewer and approver:

Project verification team

Sr. No.	**Role**	**Last name**	**First name**	**Affiliation**	**Involvement in**		
					Doc review	**Remote inspection**	**Interviews**
1.	GHG Assessor & Technical Expert	Joshi	Trapti	Naturelink Solutions Pvt. Ltd.	Yes	Yes	Yes

2 Verification Process

2.1.1 Desk/document review

The desk review was conducted by the verification team that included:

- A review of data and information presented to assess its completeness
- A review of the initial PCN/9/, MR/10/11/, emission reduction calculation sheet/12/, Methodology – AMS-III.Q/4/.

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

2.1.2 Remote Inspection

Date of inspection:	06/04/2025			
No.	**Activity performed**	**Site location**	**Date**	**Auditee**
1.	Opening meeting	Project location	06/04/2025	
2.	Evidence gathering activities	Project location	06/04/2025	
3.	Closing meeting	Project Location	06/04/2025	

2.1.3 Interviews: Online

No.	**Interview**			**Date**	**Subject**
	Last name	**First name**	**Affiliation**		
1.	Madhav Rao	M. Venkata	SCEPL	06/04/2025	Legal ownership of the project, Implementation of the project, start date and crediting period, Double counting of the carbon credits Overview of the plant, Project boundary, Monitoring plan,
2.	Trivedi	Kashyap	CTPL	06/04/2025	Project Overview, PCN, Monitoring Report, Methodology eligibility criteria, Baseline emissions, Emission Reduction Calculation

2.1.4 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	NIL	NIL	NIL
General description of project activity	NIL	NIL	NIL
Application and selection of methodologies and standardized baselines	--	--	--
• 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	01	NIL
• Monitoring Report	NIL	NIL	NIL
Start date, crediting period and duration	NIL	NIL	NIL
Environmental impacts	NIL	NIL	NIL
Project Owner- Identification and communication	NIL	NIL	NIL
Others (please specify)	01	NIL	NIL
Total	01	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 GHG program and the operations started since 01/09/2022 which is the earliest commissioning date of the manufacturing facility. Prior to the commencement of the project activity, the project owner has received consent to operate (CTO)/12/ for the installation and operation of Waste heat recovery boiler from Gujarat Pollution Control Board (GPCB). Project applies an approved CDM monitoring and baseline methodology AMS-III.Q Waste energy recovery, Version 06.1/4/.
Findings	No findings raised
Conclusion	The project is eligible as per the requirements of the UCR General project eligibility criteria and guidance Version 06.0./2/ Further project verification team cross checked the other GHG programmes like Clean Development Mechanism (CDM) Registry, VERRA Registry, Gold Standard (GS) Registry and confirmed that the project was not submitted or registered under any other GHG programmes and non-voluntary non-GHG Programs, GPS coordinates, Legal Ownership of the Project activity is 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 Verification	The project activity is a waste heat recovery power generation activity which incorporates installation and operation of waste heat recovery boiler (WHRB) having capacity of 10 MW. This is a green field project. Prior to proposed project activity, there was no waste heat recovery boiler in operation at the project location which was verified by the interview with project personnel. The waste heat generated from production of Low ash metallurgical coke, pig iron, ferro silicon is used to generate electricity for onsite consumption. the project activity enables GHG emission reduction due consumption of waste heat generated during the production.

	The Location details has been verified during the remote inspection and geo coordinates verified through google earth/Maps. The project activity described and applied AMS-III.Q, Waste heat recovery, Version 06.0/4/.
Findings	No findings were raised
Conclusion	The description of the project activity is verified to be true based on the review of PCN/9/, MR/11/, and Consent to operate/13/.

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-III.Q, Waste heat recovery, Version 06.1/4/. Baseline condition is "in the absence of the proposed project activity, the electrical energy demand would have been supplied to the processing plants by national grid which is coal intensive" and clearly mentioned in PCN/9/ and MR/10/11/.
Findings	No findings were raised
Conclusion	The project activity is clearly depicting the applied methodology/4/ and its standardized baseline and meets the requirements of UCR standards/2/.

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

Means of Project Verification	**Applicability as per AMS-III.Q, Version 06.1**	**Verifier assessment**
	1. The methodology is for project activities implemented in an existing or greenfield waste energy generation (WEG) facility converting waste energy carried in the identified waste energy carrying medium (WECM) stream(s) into useful energy (i.e. electricity, mechanical or thermal) that is consumed in an existing and/or greenfield recipient facility(ies). The WEG facility may be one of the recipient facilities. In the case of	The project activity is an installation of Waste heat recovery boiler in the production of Low ash metallurgical coke, pig iron, ferro silicon and utilization of heat content of flue gas at greenfield waste energy generation (WEG) facility. The WEG facility is the recipient facility as well for the generated

	electricity generation, grid may be one of the recipient facilities	electricity for this project activity instance. In the absence of the project activity the total heat and energy demand of the plant would be met by coal-based boiler and existing technology which is carbon intensive. This was confirmed during the remote inspection and through document review of historical production records.
	2. The useful energy generated from the utilization of waste energy carried in the WECM stream(s) may be one or a combination of the below: a) Cogeneration; b) Generation of electricity; c) Direct use as process heat; d) Generation of heat in an element process; or e) Generation of mechanical energy	The project activity is generation of electricity hence, point no. b of the criterion of the methodology is applied appropriately.
	3. The methodology is applicable under the following conditions: a) The recovery of waste energy shall be a new initiative (i.e. WECM was flared, vented or released into the atmosphere in the absence of the project activity). The DOEs during on-site visit as part of their validation activities shall confirm that no equipment for waste energy recovery and utilization had been installed on the specific WECM stream(s) (that is recovered under the project activity) prior to the implementation of the project activity by using one of the following options: i) By direct measurements of energy content and amount of the waste energy for at least	The proposed project activity involves the utilization of heat content of flue gas at waste energy generation (WEG) facility and Flue gas was flared into the atmosphere in the absence of the project activity. Hence, the recovery of waste energy is a greenfield initiative.

		three years prior to the start of the project activity; ii) Energy balance of relevant sections of the plant to prove that the waste energy was not a source of energy before the implementation of the project activity. For the energy balance representative process parameters are required. The energy balance shall demonstrate that the waste energy was not used and provide conservative estimations of the energy content and amount of waste energy released; iii) Energy bills (electricity, fossil fuel) to demonstrate that all the energy required for the process (e.g. based on specific energy consumption specified by the manufacturer) has been procured commercially. Project participants are required to demonstrate through the financial documents (e.g. balance sheets, profit and loss statement) that no energy was generated by waste energy and sold to other facilities and/or the grid. The bills and financial statements should be audited by competent authorities; iv) Process plant manufacturer's original specification/ information, schemes and diagrams from the construction of the facility could be used as an estimate of quantity and energy content of waste energy produced for rated plant capacity per unit of product produced.	
		b) Regulations do not require the WEG facility to recover and/or utilize the waste energy prior to the implementation of the project activity	There is no such regulation for WEG facility to recover and /or utilize waste energy. As verified during the document verification and confirmed during interview,

			Hence, the project activity meets this applicability criterion.
		c) A WECM stream that is released under abnormal operations (for example: emergencies, shutdown etc.) of the WEG facility shall not be included in the emission reduction calculations	The waste gas released under abnormal operation of the WEG facility is not included in the emission reduction calculation. Only the electrical energy generation because of heat recovery is considered for emission reduction calculations. Hence, the project activity meets this applicability criterion.
		d) Energy (i.e. electricity or thermal heat) produced in the project activity may be exported to a grid or other industrial facilities (included in the project boundary), a contractual agreement exists between the owners of the WEG facility and the recipient facility(ies) to avoid the potential double counting of emission reductions. These procedures shall be described in the CDM Project Design Document;	The electricity generated in the project activity is used for captive consumption only. Hence no contractual agreement is made however the project activity has obtained Consent to operate for the project activity.
		e) For project activities that use waste pressure to generate electricity the electricity generated from waste pressure shall be measurable.	This criterion is not applicable to the project activity.
		4. The methodology is not applicable to project activities implemented in a single-cycle power plant (e.g. gas turbine or diesel generator) where waste energy generated on-site is not utilizable for any other purposes on-site except to generate electricity. Such project activities shall consider “AMS-III.AL.: Conversion from single cycle to combined cycle power generation”. However, project activities recovering waste energy from such power plants for the purpose of	Project activity is using WHR boiler to generate steam and generated steam would be used in turbine for electricity generation.

		generation of heat can apply this methodology	
		5. For a project activity that recovers waste energy for power generation from multiple sources (e.g. a kiln and a single-cycle power plant), this methodology should be used in combination with AMS-III.AL. provided that: a) It is possible to distinguish two distinct waste energy sources within the project activity such that: i. Waste energy source-I (e.g. the kiln) belongs to waste heat sources which are eligible under AMS- III.Q.; ii. Waste energy source-II (e.g. the single-cycle power unit) belongs to waste heat sources which are eligible under AMS-III.AL.; b) For waste energy source-II eligible under AMS.III.AL., all requirements under "AMS-III.AL.: Conversion from single cycle to combined cycle power generation" that relate to baseline, project emissions and monitoring shall apply; c) It is possible to determine the baseline for each waste energy source, according to the specific methodology being used; d) It is possible to objectively allocate the electricity produced in the project activity to each waste energy source, by means of one of the following methods: i. Through separate measurements of the electricity produced by utilizing waste energy from each waste energy source; or ii. Through separate measurements of the energy content of the WECM streams used for electricity production; or	This criterion is not applicable to the project activity as the project activity is not recovering waste energy for power generation from multiple sources. The entire waste gas would be used for power generation and it does not have any other source. This has been verified through process flow diagram, commissioning certificate and interview with plant personnel.

	iii. Through separate measurements of the energy content of the WECM streams that are associated with each waste energy source and used for electricity production or for the WECM generation in a common waste heat recovery system (e.g. if steam is generated by waste heat from a kiln and waste heat from an internal combustion engine in a common waste heat recovery boiler).	
	6. Emission reductions cannot be claimed at and beyond the end of the lifetime of the waste energy generation equipment at the WEG facility or on-site captive unit at the recipient facility. The end of the lifetime of the equipment shall be determined as per the requirements mentioned in "Tool to determine remaining lifetime of equipment".	The emission reduction is not being claimed beyond the end of the lifetime of the waste energy generation equipment at the WEG facility as the project activity is currently operational.
	7. The project activity shall result in emission reductions less than or equal to 60 kt CO2 equivalent annually.	The total emission reduction for this monitoring period is 50280 tCO_2e which is less than 60 kt CO_2e annually.
Findings	No findings were raised	
Conclusion	The methodology applied/4/ is appropriately meeting the requirements of UCR standard/2/ and its standardized baseline. The methodology version is correct and valid. The referenced methodology is applicable to project activity.	

3.3.3 Project boundary, sources and GHGs

Means of Project Verification	As per the applied methodology AMS-III. Q version 6.1/4/, the spatial extent of the project boundary includes manufacturing facility where production of Low ash metallurgical coke, pig iron, ferro silicon and operation of WHR boiler. The components of the project boundary mentioned in the PCN/9/ were checked against the para 19 of the applied methodology/4/.

	The project verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified and 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 boundary is clearly depicted with the help of a pictorial depiction in section A.3. of the PCN/9/ and duly verified by the verification team via Consent to operate/13/ and remote inspection of the project activity.
Findings	No findings were raised.
Conclusion	The project verification team was able to assess that complete information regarding the project boundary has been provided in PCN/9/ & MR/11/ and further can be assured from Consent to operate/13/ The project verification team confirms that the identified boundary, selected emissions sources are justified for the project activity.

3.3.4 Baseline scenario

Means of Project Verification	As per the consolidated methodology AMS-III.Q. Version 06.1/4/, baseline scenario is that the electricity generated by the WHR boiler by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. Thus, the project activity results in lower GHG emissions as compared to the conventional electrical energy production. The baseline scenario defined in PCN/9/ and MR/10/11/ in the absence of the project activity; the energy would have been produced and supplied by grid.
Findings	No findings were raised
Conclusion	The project verification team concluded that the identified baseline scenario reasonably represents what would occur in the absence of the project activity.

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/9/ and MR/10/11/ is in accordance with applied methodology/4/. Project Verification team checked section B.5 and C.5.1 of the PCN/9/ & MR/10/11/ respectively to confirm whether all formulae to calculate baseline emissions, project emission and leakage emission have been applied in line with applied methodology/4/. As per the para 28 and 43 of the applied methodology/4/, baseline emission reduction calculation is, $$BE_{elec,y} = f_{cap} \times f_{wcm} \times \sum_{j} \sum_{i} (EG_{i,j,y} \times EF_{Elec,i,j,y})$$ Where, $BE_{elec,y}$ = Baseline emissions due to displacement of electricity during the year *y* in tons of CO_2 f_{cap} = The ratio of waste energy generated at a historical level, expressed as a fraction of the total waste energy used in the project activity for producing useful energy in year *y*. The ratio is 1 if the waste energy generated in project year *y* is the same or less than that generated at a historical level. Capping factor is to exclude increased waste energy utilization in the project year *y* due to increased level of activity of the plant, relative to the level of activity in the base years before project start. The value of f_{cap} shall be estimated using one of the applicable methods that applies to the situation of the project activity prescribed in the most recent version of "ACM0012: Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects". Where the method requires historical data, the project proponents shall follow the requirement stipulated in paragraph 23 above f_{wcm} = Fraction of total electricity generated by the project activity using waste energy. This fraction is 1 if the electricity generation is purely from use of waste energy. The value of f_{wcm} shall be estimated using applicable procedures that apply to the situation of the project activity prescribed in the most recent version of "ACM0012: Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects". Where the method requires historical information, the project proponents shall follow the requirement stipulated in paragraph 23 above. In cases where auxiliary fossil fuel is used to supplement the waste energy directly in the waste heat recovery combustion systems and the energy output cannot be demonstrably apportioned due to technical constraints (e.g. waste gas measurement and its quality) between fossil fuels and the waste energy, a value of 1 for fwcm can be used and consider the emissions resulting from the combustion of fossil fuel as project emissions using "Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion". Note: for a project activity using waste energy to generate electricity this fraction is 1 $EG_{i,j,y}$ = The quantity of electricity supplied to the recipient *j* by generator, that in the absence of the project activity would have been sourced from i^{th} source (*i* can be either grid or identified existing source) during the year *y* in MWh.

	$EF_{Elec,i,j,y}$ = The CO_2 emission factor for the electricity source *i* (grid or identified existing source), displaced due to the project activity, during the year *y* in tons CO_2/MWh. $$BE_{elec,y} = f_{cap}\ (1) \times f_{wcm}\ (1) \times \sum_j \sum_i (EG_{i,j,y} \times EF_{Elec,i,j,y})$$ BE = $EG_{i,j,y} \times EF_{Elec,i,j,y}$

Year	Total No. of Electricity delivered in kWh	Recommended emission factor tCO2/MWh	Total CoUs generated
2023	23861.76	0.9	21475
2024	38052.32	0.757	28805
Total CoUs generated			**50280**

BE = 50280 tCO_2e

Emission reductions

$ER_y = BE_y - PE_y - LE_y$

Where:

ER_y = Emission reductions in year y (tCO_{2e}/y)

BE_y = Baseline Emissions in year y (t CO_2/y)

PE_y = Project emissions in year y (t CO_2/y)

LE_y = Leakage emissions in year y (t CO_2/y)

PE=0, as no auxiliary fuels is fired in the project activity.

LE=0 as no leakage is applicable under this methodology.

ER = 50280 – 0 – 0

Net ER = 50280 tCO_2e

Based on the above estimation emission reductions based on the data provided parameters is 50280 tCO_{2e}

Findings	CAR 01 was raised
Conclusion	Project Verification team confirm that the algorithms and formulae proposed to calculate project emissions, baseline emissions, leakage and emission reductions in the PCN/9/ and MR/11/ is in line with the requirements of the selected methodology AMS-III.Q, version 06.1/4/ For the calculation, the assessment team confirms that All assumptions and data used by the project participants are listed in the PCN/9/ including their references and sources. All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PCN/9/ & MR/11/.

	All values used in the PCN/9/ & MR/11/ are considered reasonable in the context of the proposed project activity The baseline methodology and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions; All calculations are complete and without any omissions.

3.3.6 Monitoring Report

Means of Project Verification	The monitoring report/10/11/ submitted by the PP has been verified thoroughly against the requirements of applied methodology/4/ and UCR standard/2/ for the calculation of GHG emission reductions. The assessment team has reviewed all the parameters in the monitoring plan against the requirements of the applied methodology and monitoring parameters are applied in line with the requirement of the methodology and relevant in the context of the UCR program. The procedures have been reviewed by the assessment team through document review and interviews with the respective monitoring personnel. Relevant points have been discussed with the project owner specifically; monitoring methodology, data management and calibration of the equipment.
Findings	No findings were raised
Conclusion	The project verification team confirms that, The monitoring report/11/ follows the applicable methodology/4/ and UCR standard/2/. The monitoring parameter reported in MR/12/ adequately represents the parameters relevant to emission reduction calculation. The calibration report of weigh bridge ensures the accuracy of the data reported. The number of CoUs generation is calculated based on the accurately reported data. The calculation was done using an excel sheet where all the parameters were reported. The emission factor for electricity consumption is as per UCR standard/2/. In the monitoring report/11/, emission reduction calculations are correctly calculated and reported and meets the requirements of UCR project verification standard/3/

3.4 Start date, crediting period, and duration

Means of Project Verification	The Start date of the project activity is considered as 01/09/2023 which is the date on which consent to operate/13/ was issued to the project activity. Monitoring period for this instance is from 01/09/2023 to 31/12/2024 which was verified as per the UCR standard/2/.
Findings	No finding was raised.
Conclusion	The start dates and the crediting period type & length have been verified and found to be in accordance with UCR project standard/2/.

3.5 Environmental impacts and safeguard assessment

Means of Project Verification	The project activity has obtained Consent to operate/13/ from Gujarat Pollution Control Board and complying with all the rules and regulations mentioned thereof hence project activity causes no additional damage to the environment. Out of all the safeguards no risks were identified to the environment due to the project implementation and operation.
Findings	No finding was raised.
Conclusion	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the environment but would have a positive impact

3.6 Project Owner- Identification and communication

Means of Project Verification	The information and contact details of the project owner was verified with Factory license/11/ and Consent to operate/13/ has been appropriately incorporated in the PCN/9/ The legal owner of the project is Shreeji Coke and Energy Pvt. Ltd. and same to be demonstrated by the project owner through the commissioning certificates, and Consent to operate/13/.
Findings	No finding was raised.
Conclusion	The project verification team confirms that the information of the project owners has been authorized.

3.7 Positive Social Impact

Means of Project Verification	Out of all the safeguards no risks were identified to the society due to the project implementation and operation. Only positive impacts identified by the Project owner which is not likely to cause any harm. The following have been identified as positive impacts of the project activity. Social – Jobs – Long-term jobs (> 1 year) **created**. Social – Welfare- Women's empowerment. Social - Health & Safety - Reducing / increasing accidents. Project has provided long term employment to local people during its installation and commissioning. Also post commissioning some of people have employed permanently and local people were engaged leading to social financial benefit to surrounding. Overall social impact of project implementation is positive on the surrounding area.
Findings	--
Conclusion	Project has overall positive social impact.

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 (Double Counting of Credits)

Means of Project Verification	The project activity was searched on other GHG programs to ensure that project is not registered in any other GHG programs like VERRA, Gold standard, GCC etc. An agreement stating that project activity will not cause double counting of the credits is also checked as per clause 1.8, Universal Carbon Registry Program Manual (Ver 6.1) August 2024.
Findings	CL 01 was raised
Conclusion	Double accounting agreement/8/ is signed between PO and Aggregator and found to appropriate as per clause 1.8, Universal Carbon Registry Program Manual (Ver 6.1) August 2024/1/.

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-III.Q. – Waste head recovery, version 06.1/4/, Project Concept Note (PCN)/9/, Monitoring Report /11/, Consent to operate/13/, and documents mentioned in Appendix-2.

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

The emission reduction amounts to 50280 CoUs (50280 tCO_2e) from the project activity “10 MW Captive Power Project by S. C. E. P. L. (UCR ID – 457)” for the period 01/09/2023 to 31/12/2024 has been verified with reasonable level of assurance as per the UCR Verification standard /3/.

6 Competence of team members and technical reviewers

No.	Last name	First name	Affiliation	Technical Competence
1.	Joshi	Trapti	GHG Assessor and Technical Expert	Ms. Trapti Joshi is having M.Tech. In Environmental Engineering. She has experience in conducting environmental audits in CDM/VCS/GS registry. She has performed the Renewable sector and Waste handling projects. Also, she has done Master's thesis in Solid waste management project through LCA Gabi Software.

Appendix 1: Abbreviations

Abbreviations	Full texts
UCR	Universal Carbon Registry
GPCB	Gujarat Pollution Control Board
WHRB	Waste Heat Recovery Boiler
CEA	Central Electricity Authority
MR	Monitoring report
PCN	Project Concept Note
VR	Verification Report
VS	Verification Statement
DAA	Double Accounting Agreement
PP/PO	Project Proponent / Project Owner
PA	Project Aggregator
ER	Emission Reduction
CoUs	Carbon offset Units.
tCO_2e	Tons of Carbon Dioxide Equivalent
kWh	Kilo-Watt Hour
MWh	Mega-Watt Hour
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 6.1, August 2024	UCR website
2.	UCR	UCR CoU Standard (General project eligibility criteria and guidance)	Version 7.0, August 2024	UCR website
3.	UCR	UCR Program Verification standard	Version 2.0, August 2022	UCR website
4.	CDM	AMS-III.Q: "Waste Heat Recovery"	Version 06.1	CDM website
5.	CEA	Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2022	Dated 28/02/2022	-
6.	CEA	CO_2 baseline database for the Indian Power sector	Version 20.0 dated December 2024	-
7.	Creduce	Communication agreement between PP and PO	Dated 04/01/2024	
8.	Creduce	Double Accounting Agreement	Dated 06/04/2025	
9.	Creduce	Project concept note	Version 1.0, dated 23/08/2024	
10.	Creduce	Monitoring report	Version 1.0, dated 21/01/2025	
11.	Creduce	Monitoring report	Version 2.0 dated 27/01/2025	PA
12.	Creduce	Emission reduction excel	Version 1.0 dated 27/01/2025	PA
13.	GPCB	Consent to operate (CTO)	AWH-121621 dated 28/09/2022,	PA
14.	Office of the electrical inspector	Commissioning certificate	Dated 27/05/2022	PA
15.	SCEPL	Energy Bills	-	PA

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

Table 1. CLs from this Project Verification

CL ID	01	**Section no.:** 3.7	Others (DAA)	**Date:** 18/01/2025
Description of CL				
Document stating that the project activity will not cause double counting is not available as per requirement of clause 1.8, Universal Carbon Registry Program Manual (v. 6.1, August 2024)				
Project Owner's response				**Date:** 02/05/2025
Double accounting agreement is provided				
Documentation provided by Project Owner				
Double accounting agreement				
UCR Project Verifier assessment				**Date:** 03/05/2025
Double accounting agreement is checked and found to be confirming the UCR program manual *(v. 6.1, August 2024), hence CL 01 stands closed.*				

Table 2. CARs from this Project Verification

CAR ID	01	**Section no.:** 3.3.5	Estimation of emission reduction or net anthropogenic removals	**Date:** 18/01/2025
Description of CAR				
1. As per the UCR CoU standard, it is request to round down the CoUs mentioned in the Monitoring report V1 dated 16/01/2025 and Emission reduction calculation sheet for the monitoring period 01/09/2023 to 31/12/2024. *2. In the section B.5.1 of Monitoring report V1 dated 16/01/2025, it is request to update the Emission factor is not consistent with latest CEA data base for the monitoring period of the year 2024.*				
Project Owner's response				**Date:** 27/01/2025
1. The CoUs are rounded down considering conservative estimate and updated in the monitoring report V2. 21/01/2025 and emission reduction calculation sheet. *2. The Emission factor for the monitoring period of 2024 has been updated with respect to the latest CEA report V 20. in the monitoring report v2.0 as well as emission reduction calculation sheet v2,0*				
Documentation provided by Project Owner				
MR Version 2.0, Emission reduction calculation sheet V2.0				
UCR Project Verifier assessment				**Date:** 30/01/2024
1. Monitoring report V2.0 and Emission reduction calculation sheet is checked and round to be confirming with UCR CoU standard; 2. Emission factor for the monitoring period 2024 has been checked and found to be consistent with CEA report V.20; Hence CAR 01 is 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				