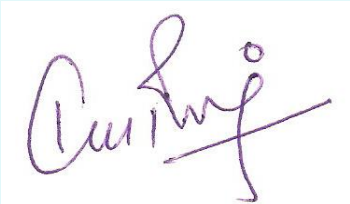


**Verification report form for GS4GG
Programme of Activity
(Gold Standard for the Global Goals)**

BASIC INFORMATION					
Title of the GS4GG Programme of Activity (PoA)	PoA GS ID: 12066 MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India				
Reference number of the Programmes of Activity (PoA)	GS 12066				
Design certification Date	24/08/2023				
Version number of the verification and certification report	3.0				
Completion date of the verification and certification report	26/10/2023				
GS ID (s) of VPAs under PoA	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">VPA Ref. no.</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>GS 12067</td> <td>GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01</td> </tr> </tbody> </table>	VPA Ref. no.	Title	GS 12067	GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01
VPA Ref. no.	Title				
GS 12067	GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01				
Version number of the monitoring report to which this report applies	4.0				
Completion date of the monitoring report to which this report applies	09/10/2023				
Monitoring period no. and duration	1 st VPA 01 - 04/04/2022 to 31/03/2023 (including both days)				
Project Representative	Micro Energy Credits Corporation Private Limited				
Host Party	India				
Applied methodologies and standardized baselines	Methodology for Metered & Measured Energy Cooking Devices (version 1.2)				
Activity requirements applied	<input checked="" type="checkbox"/> Community Services Activities <input type="checkbox"/> Renewable Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A				

Product Requirements applied		<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A		
Estimated amount of annual average GHG emission reductions		Induction: VPA 01 – 309,719 tCO _{2e}		
Sustainable Development Goals Targeted	SDG Impact	Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period		Units/Products
		Estimated	Achieved	
SDG 13: Climate Action	Number of VER's Year 2022	232,717	54,554	tCO _{2e} VERs
	Number of VER's Year 2023	77,002	30,756	
SDG 5: Gender Equality	Time saved for cooking	1.3	1.10	Hours/households/Week
		1.3	1.10	
SDG 7: Affordable and Clean Energy	Number of households having operational Units	82,988	82,657	Number of Induction stove
		52,694	50,868	
SDG 8: Decent Work and Economic Growth	Total number of jobs created	20	103 (Male 91 & Female 12)	Number of Jobs
		20	103 (Male 91 & Female 12)	
Name and UNFCCC reference number of the VVB		Earthood Services Private Limited E-0066		
Name, position and signature of the approver of the verification report		 Dr. Kaviraj Singh Managing Director		

SECTION A. Executive summary

The GS programme of activity “MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India” (PoA GS 12066) aims to replacement of fossil fuel consumption and the resultant GHG emission with a clear and sustainable technology which will lead to reduced GHG emissions. CME archives this through dissemination of highly efficient induction cookstove in households/facilities of peri urban areas in various states of India. The PoA is using carbon finance to support local partners engaged in different activities like distribution, and maintenance of various models of induction cookstove technologies. The VPA main target is on reduction of greenhouse gas emissions from the burning of non-renewable woody biomass and LPG for cooking. Induction Cookstoves improve heat transfer efficiency as compared to the baseline conventional three stone fired stoves and LPG stoves, and thereby reducing GHG emissions, thus replacing the baseline scenario with the project activity will lead to reduction in GHG emissions and fulfilling the requirements of the applied methodologies Metered & Measured Energy Cooking Devices (version 1.2)/06/ respectively.

The VPA 01 which is a part of this verification report includes dissemination of highly efficient induction cookstove.

The VPA’s are being submitted to GS4GG for Verification are as follows:

Parameter	Validated information
GS ID of the VPAs to be included	GS12067 (VPA 01)
Title of the VPAs	<ul style="list-style-type: none"> GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01
Methodology applied	<ul style="list-style-type: none"> Metered & Measured Energy Cooking Devices (version 1.2).
Crediting period	5 years, Renewable twice, total 15 years of crediting period. 04/04/2022 to 31/03/2023 (Inclusive of both the days)

The VPAs aim at dissemination of Induction cookstove in 13 states of India /02/ and is being implemented by MicroEnergy Credits Corporation Private Limited’s (PO) and coordinated by MicroEnergy Credits Corporation Private Limited (MEC). The VPA aims at GHG emission reductions through displacement of non-renewable biomass and fossil fuel use with Induction cookstove to meet the thermal and electric demands of facility/household. The households in peri urban areas of India traditionally use fossil fuels which includes wood & LPG for fulfilling their energy demands. The baseline scenario under the VPA is the replacement of traditional three stone fired cookstove and LPG stove with the Induction cookstove thereby reducing the amount of fuelwood and LPG used for cooking purposes in the baseline.

The PoA has been registered under GS4GG (GSID 12066). The CME of the PoA is Micro Cooking Credits Corporation Private Limited and with the help Satin Creditcare Network Limited, Asirvad Microfinance Limited, Sarala Women Welfare Society, Vedika Credit Capital Limited, Evangelical Social Action Forum and Samasta Microfinance Limited.

The Monitoring period covered under this verification is 04/04/2022 – 31/03/2023 (inclusive of both the dates) for the (VPA 01). The VPA GS 12067 (VPA 01)/02/ envisage an archived annual GHG emission reduction and other SDG impacts over the crediting period as given in the table below.

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
--	------------	-----------------	-----------------

13	Climate Action (mandatory)	Number of VERs	54,554 (2022) 30,756 (2023)	tCO _{2e} VERs
5	Gender equality	Time saved in cooking	1.10 (2022) 1.10 (2023)	Hr/HH/Week
7	Affordable and Clean Energy	Number of households having operational induction stove	82,657 (2022) 50,868 (2023)	Number of Induction stove
8	Decent Work and Economic Growth	Total number of jobs created	103 (Male 91 & Female 12) (2022) 103 (Male 91 & Female 12) (2023)	Number of Jobs

Scope of Verification

The verification is an independent and objective review for determination of the monitored reductions in GHG emissions by the VVB. The verification includes the implementation and operation of the PoA as set out in the registered PoA-DD/01/ & VPA-DD/02/ for VPA 01 in the monitoring period.

The verification tests the data and assertions set out in the monitoring report prepared for this monitoring period, and it is based on the review of the following:

- (i) The approved methodology METERED & MEASURED ENERGY COOKING DEVICES (VERSION 1.2)/06/
- (ii) The registered PoA-DD/01/ & registered VPA-DD/02/ and monitoring plan/02/
- (iii) UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords
- (iv) GS4GG requirements
- (v) The CDM Validation and Verification Standard (VVS) version 3.0/18/ and The CDM Project Standard (PS) version 3.0/17/
- (vi) Relevant decisions, guidance, and clarifications of the CMP and CDM Executive Board and any other information and references relevant to the project activity's reported emission reductions
- (vii) GS review of validation of PoA and VPA.

The verification has considered both the quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC and GS4GG, as appropriate to the PoA. The verification is not meant to provide any consulting or recommendations to the CME/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

Verification Process

The verification process is conducted as per internal GS4GG Requirements, which includes the following steps;

- a) Contract with CME and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- b) Desk review (refer Section D.1 of this report) of Monitoring Report and corresponding ER sheet by verification team and remote audit (including sampling approach (refer Section D.4 of this report) to be applied)
- c) Onsite audit (refer Section D.2 of this report) by verification team consistent of Team Leader and all Technical Experts, as a minimum
- d) Follow up activities e.g., interviews (refer Section D.3 of this report)
- e) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section D.5 of this report)

- f) Independent technical review (refer Section B.2 of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences)
- g) Reporting and closure of TR comments/findings (refer Section D.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section G and H of this report).
- h) Issuance of final verification report to contracted CME (or authorized representatives) and submission of request for issuance, as appropriate.

Verification Conclusion

The review of the monitoring report, supporting documentation and subsequent follow up actions have provided ESPL with sufficient evidence to determine the fulfilment of stated criteria. Earthood is of the opinion that the PoA "MicroEnergy Credits – Microfinance for Clean cooking Product Lines - India" (GS ID: 12066) meets all the GS requirements and has correctly applied the GS approved methodologies Metered & Measured Energy Cooking Devices (version 1.2)/06/ respectively.

The GHG emission reductions were calculated correctly based on the approved methodologies METERED & MEASURED ENERGY COOKING DEVICES (VERSION 1.2)/06/ and the monitoring plan contained in the registered PoA-DD/01/ and VPA-DD/02/.

Earthood Services Private Limited can certify that the emission reductions achieved in the monitoring period 04/04/2022 – 31/03/2023 for the (VPA 01) by GS PoA "MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India" (GSID: 12066) amount to 85,310 tCO_{2e} for VPA 01. Therefore, this is being submitted for request for issuance, as per GS4GG and UNFCCC procedures.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection *	Interview(s)	Verification findings
1.	Team Leader	IR	Vashisht	Sushant	Central Office	Y	Y	Y	Y
3.	Technical Expert (TA 1.2, 3.1)	IR	Vashisht	Sushant	Central Office	Y	Y	Y	Y
4.	Local Expert	IR	Vashisht	Sushant	Central Office	Y	Y	Y	Y
5.	Verifier	IR	Mahala	Deepika	Central Office	Y	N	N	Y
6.	Verifier	IR	Patwal	Charu	Central Office	N	Y	Y	N

*On - site audit was conducted as described in detail under section D.2 of this report.

GS4GG states "Unless otherwise stated (for example in an applied Methodology or Product Requirements), the same VVB may undertake Validation and Verification of a given Project" in the Para 5.1.28 of the core document Principles & requirements, version 1.2, dated 23/10/2019. With reference to the statement made by GS4GG, same team has conducted the combined Validation and Verification for the VPA.

As per paragraph 2.2 of the RULE UPDATE: Validation and Verification by Same VVB (RU 2020 PR – PR V1.2), "The requirement to have different audit teams does not apply to combined

Design Certification with first verification and performance review for a given project (paragraph 5.1.53, Principles and Requirements V1.2, p 28). The same audit team may perform both validation and verification for combined Design Certification and first performance certification for a given project”.

The team composition for the verification with their roles is included in table mentioned above.

B.2. Technical reviewer and approver of the verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical reviewer and TA expert (TA 1.2, 3.1)	IR	Garg	Shreya	Central Office
2.	Approver	IR	Singh	Kaviraj	Central Office

SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Erroneous transfer of information from documented records (sales receipt, carbon transfer form etc.) to credit tracker platform	Low	POs contracted by CME enters the details in credit tracker platform at the time of installation. POs also conduct an internal check to verify the accuracy of data entry.	On a sampling basis, the records are checked with the information from the credit tracker platform and substantiated by questions asked during the remote surveys of end-users. The familiarity of PO representatives with the tracker platform is also checked.
2.	Erroneous consideration of technical specifications of CEPs (especially for solar CEPs)	Low	The technical specifications are provided by the manufacturer.	Technical specifications of each CEP model are checked against the document issued by the manufacturer.
3.	Observational error by monitoring survey staff of CME/CPA implementer while recording the responses of users in relation to survey parameters	Low	Other than monitoring surveys, the CEP usage status-check surveys are also conducted regularly for distributed CEP. Therefore, risk of error is low. However, if there are discrepancies, they are to be dealt with as	If the aggregated materiality threshold stays within the prescribed materiality threshold, no additional effort is required. However, if the aggregated materiality threshold is above the prescribed threshold, additional

			per the acceptance sampling approach.	samples are to be inspected. If additional sampling is not able to reduce the materiality threshold to a reasonable level of assurance, the monitoring result by the CME for that parameter is to be discarded.
4.	Calculation and referencing errors in ER sheet	Low	The ER calculations are cross-checked by using two different methods of calculation and comparing the results; therefore occurrence of error is less likely. However, referencing errors within the ER sheet may occur.	All calculations and referencing will be checked by verification team with respect to applicable requirements under various documents viz., methodology, PoA DD, CPA DD etc.

C.2. Consideration of materiality in conducting the verification

In accordance with CDM VVS for PoAs, Version 03.0/18/ the prescribed thresholds for materiality for CDM PoAs are as under.

The applicable materiality threshold is 2.0% as PoA comprises Large-scale VPA

Particulars / Monitoring Report	MR Version (Initial)	MR Version (Revised/Final)
Emission Reductions Achieved (tCO₂e) in this monitoring period	VPA 01 - 92,127	VPA 01 - 85,310
Applicable Threshold (%) as per CDM VVS for PoAs Version 03.0	2.0%	2.0%

During the assessment all findings were closed and from the sample selected for verification, no systemic or systematic material errors were identified which would have an impact on total emission reductions from the entire population.

SECTION D. Means of verification

D.1. Desk/document review

The verification of the information of the PoA was performed through the document review including review of monitoring report /45/ version 1.0 dated 14/07/2023. Additionally, cross checks were performed for information provided in the monitoring report using other source of information, the verification team's sectoral or local expertise and, if necessary, independent background investigations.

The desk review involves:

- A review of the data and information presented to verify their completeness.
- A review of the monitoring plan, the monitoring methodologies including applicable tool(s) and, where applicable, the applied standardized baseline, paying attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures.
- A review of calculations and assumptions made in determining the GHG data and emission reductions.

- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed during the verification is provided under appendix 3 of this report.

D.2. On-site inspection

Duration of on-site inspection: 07/06/2023				
No	Activity performed on-site	Site location	Date	Team member
1.	Physical site visit: Households visited (implementation of PoA)	Uttar Pradesh & West Bengal	07/06/2023	Sushant Vashisht & Charu Patwal
2.	Review of information flows for generating, aggregating and reporting the monitoring parameters	Uttar Pradesh & West Bengal	07/06/2023	
3.	Cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;	Uttar Pradesh & West Bengal	07/06/2023	
4.	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the applicable requirements	Uttar Pradesh & West Bengal	07/06/2023	
5.	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	Uttar Pradesh & West Bengal	07/06/2023	

D.3. Interviews

D.3.1. Interviews with CME and VPA Implementers

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Patil	Shubham	MEC India	07/06/2023	VPA DD description, Monitoring parameters, Project boundary, Ex-ante and Ex-post parameters	Sushant Vashisht & Charu Patwal
2.	Panda	Satya Ranjan	MEC India		VPA DD description, Monitoring parameters, Project boundary,	

					Ex-ante and Ex-post parameters	
Induction cookstove End- User for VPA 01						
1	Devi	Savita	Induction cookstove End User	07/06/2023	VVB Survey	Project Sushant Vashisht
2	Shree	Dev	Induction cookstove End User	07/06/2023	VVB Survey	Project Sushant Vashisht
3	Sharma	Rajni	Induction cookstove End User	07/06/2023	VVB Survey	Project Sushant Vashisht
4	-	Rubeena	Induction cookstove End User	07/06/2023	VVB Survey	Project Sushant Vashisht
5	Garai	Munmun	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
6	Murmu	Mamoni	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
7	Lohar	Sabita	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
8	Das	Chandna ni	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
9	Sonali	Sinhasah asaray	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
10	Roy	Sangha mitra	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal
11	Pathihar	Saraswa ti	Induction cookstove End User	07/06/2023	VVB Survey	Project Charu Patwal

Following questions are asked by the end-users for the verification of samples:

No.	Questions asked by Team member for Induction cookstoves monitoring survey	Nature of the response
1.	Name of the end-user	Positively responded
2.	Location/ Address (Village name, Pincode)	Positively responded
3.	Branch, District, State	Positively responded
4.	What is the Product Model? Can you show us the product.	Positively responded
5.	What is the Installation Date?	Positively responded
6.	What is the Unique ID of CEP?	Positively responded
7.	Total Quantity of each product type you have?	Positively responded
8.	Is your product in use/ operational?	Positively responded
9.	Is device using electricity/energy to operate?	Positively responded
10.	Is the baseline stove still in use?	Positively responded
11.	Quantity of wood use in baseline stove?	Positively responded
12.	Household Size?	Positively responded
13.	Do you have any other stoves (LPG/ Improved cookstove/ any other)?	Positively responded
14.	What is the availability of electricity in a day (Hours)?	Positively responded
15.	Number of meals cooked on Induction stove?	Positively responded
16.	No. of Meal cooked in a day?	Positively responded
17.	Did anyone taught you how to use induction, and if there is any problem comes up what to do then?	Positively responded
18.	Does the HH includes distributed cookstoves or Purifier?	Positively responded

All the end-users reported that the product is working satisfactorily, and they feel that there has been an improvement in the indoor air quality in case of Induction stove. All the end users also reported that they are aware of the grievance mechanism. No adverse or negative responses were received with regards the usage or convenience of use of induction stove. Additionally, in order to encourage end users to switch from baseline stoves to enhanced cookstoves, POs have policies in effect. For consumers who demolish or turn over their traditional stove to the appropriate partner, partners offer an additional year of warranty. Few customers still use the conventional stove despite the fact that the majority have abandoned it. During their biweekly group meetings, the PO actively engages end users by conducting customer awareness campaigns and emphasizing the value of switching to the project stove

D.4. Sampling approach

VVB's sampling plan:

In order to meet the requirements of Standard for Sampling and surveys for CDM project activities and programmes of activities /19/, the verification team applied acceptance sampling in the verification (in accordance with para 28). The verification team selected random samples of CME's sampled records, checked the acceptability (or otherwise) of the data for each such record with CME's sample records, and then based on the number of records where there is an agreement, determined if the CME's sample records meet the requirements.

The verification team determined the sample size for acceptance sampling by evaluating the following, using its own professional judgment and guidance in the Standard 'Sampling and surveys for CDM project activities and programme of activities'/19/:

- The proportion of discrepancies between the CME's data and verification team's (field or onsite inspection results) data that can be considered acceptable. This is referred to as the AQL (Acceptable Quality Level): 0.5% was considered in this verification.
- The proportion of discrepancies between the CME's data and verification team's (field or onsite inspection results) data that would be considered unacceptable. This is the UQL (Unacceptable Quality Level): 20% was considered in this verification.
- The producer risk: 10% was considered.
- The consumer risk: 10% was considered.

Considering the above input values, a sample size of 11 was required as per Table (Sample size and acceptance number based on AQL, UQL, and producer and consumer risks) in the referred Standard /19/. Accordingly, the acceptance number (c) thus determined for the sample size is 0. A sample size of 11 for each technology of each VPA meets the criteria. The samples to be surveyed by assessment team were randomly selected from the list of monitored samples using the random sample generator on Microsoft excel. The audit plan and list of samples thus obtained to be surveyed by assessment team was communicated to CME via email.

The current verification is for GS 12067 (VPA 01) In this monitoring period, following was observed:

GS Ref. VPA	Measure/Technology	Unique CEPs at the end of current MP	Incremental CEPs distribution?	Fresh/New Monitoring by CME in the MP?
GS12067	Induction cookstove	134,038	Yes	Yes

Accordingly, the verification team together has verified 11 samples collectively (11 samples for technology distributed under the VPA) during the on - site survey and observed that the sampling survey results of the CME for all the CEPs checked were consistent with VVB's survey results. The sampling method used is in line with Standard: Sampling and surveys for CDM project activities and programme of activities /19/ and Guideline: Sampling and surveys for CDM project activities and programme of activities /20/. In all, the verification team conducted onsite surveys for 11 households.

D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of verification findings	No. of CL	No. of CAR	No. of FAR
General	CL#01	-	-
Compliance of the monitoring report with the GS4GG monitoring report form	-	-	-
Remaining forward action requests from validation and/or previous verifications	-	-	-
VPAs considered for verification and covered under this report	-	-	-
Programme of activities	-	-	-
Compliance of the programme implementation with the registered PoA-DD	-	-	-
Implementation and operation of the management system	-	-	-
VPA Implementation	-	-	-

Compliance of the VPA implementation with the included VPA design document	-	CAR#01, CAR#02	-
Post-design certification changes	-	-	-
Compliance of the monitoring activities with the registered monitoring plan	CL#02	-	-
Data and parameters fixed ex ante or at renewal of crediting period	-	CAR#01	-
Data and parameters monitored	-	-	-
Comparison of monitored parameters with last monitoring period	-	-	-
Implementation of the sampling plan	-	CAR#01	-
Assessment of data and calculations of net emission reductions or removals	-		-
Calculations of baseline value of each SDG Impact	-	CAR#02	-
Calculations of project value of each SDG Impact	-	-	-
Calculations of leakage GHG emissions	-	-	-
Calculations of net benefits for each SDG Impact	-	CAR#01	-
Comparison of actual GHG ER value achieved during this monitoring period with estimated value	-	-	-
Safeguarding principles	-	-	-
Stakeholder Inputs and Legal Disputes	-	CAR#03	-
Continuous input and grievance mechanism	-	-	-
Internal quality control	-	-	-
Others (editorial/ consistency)	-	-	-
Total	02	03	00

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the GS4GG monitoring report form

Means of verification	The monitoring report form used is GS4GG Monitoring report template version 1.1 /04/, which is a valid version available at the time of verification. All the sections of the aforesaid form were filled as per the Monitoring report template guide version 1.1 /04/ and all the relevant details were provided in the form.
Findings	No findings were raised.
Conclusion	The monitoring report version 2. /34/ has been found to be completed using the valid version of the monitoring report form. The information provided in the monitoring report has been assessed in accordance with the GS4GG principles & requirements version 1.2/21/ and monitoring report template guide /04/.

E.2. Remaining forward action requests from validation and/or previous verifications

This is the first verification of VPA 01 under GS4GG. The validation and verification of the VPA is submitted simultaneously for GS design and performance review. Any FAR's raised will be reflected in the next verification. However, the following FARs were raised during the GS Design Review/Preliminary review:

FAR Raised	Assessment by VVB
FAR # 1: As per the FARs raised in the preliminary review by GS, CME is requested to provide the geo-coordinates of the project boundary in section A.2 of VPA-DD.	FAR#1: VVB has confirmed that the geo-coordinates of the various states in the host country i.e. Bihar, Chhattisgarh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand & West Bengal. has been provided in the VPA-DD and revised

	VPA-DD was shared by the CME to VVB & sustain cert which is found to be appropriate and reliable.
--	---

E.3. VPAs considered for verification and covered under this report

Title and GS reference number of the VPA included in the PoA as of the end of this monitoring period	Is the VPA considered for this verification? (yes/no)	Version of the VPA-DD/PoA-DD
GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01	Yes	Version 4

E.4. Programme of Activities
E.4.1. Compliance of the programme implementation with the registered PoA-DD

Means of verification	<p>The PoA involves the promotion, distribution and sale of Induction cook stoves in India. CME has implemented the VPA through coordination with the partner organizations (POs) and further with local/channel sellers/distributors. The overall responsibility of implementation and operation is with CME (MEC), which was evident from the interviews conducted with CME. This is consistent with PoA DD /01/. The current verification considers VPA 01 – GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01 by CME.</p> <p>The implementation of the VPA, as referenced above, is within the geographical boundary of the PoA-DD/01/, which constitutes the physical boundary as well.</p> <p>The type of CEP (Clean Energy Product) models deployed under the VPA is verified by the following:</p> <p>VPA 01 – GS12067:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #00A6C9; color: white;">Type of CEP</th> <th style="background-color: #00A6C9; color: white;">Model</th> <th style="background-color: #00A6C9; color: white;">PO/ Implementer</th> </tr> </thead> <tbody> <tr> <td rowspan="6" style="text-align: center; vertical-align: middle;">Induction Cookstove</td> <td>Prestige Induction 1200W</td> <td rowspan="6" style="vertical-align: top;">Shri Satin Credit care Network Limited, Asirvad Microfinance Limited, Sarala Women Welfare Society, Vedika Credit Capital Limited, Evangelical Social Action Forum and Samasta Microfinance Limited</td> </tr> <tr> <td>dight Induction 1400W</td> </tr> <tr> <td>Maharaja Induction 1800W</td> </tr> <tr> <td>Pigeon Induction 1800W</td> </tr> <tr> <td>Crompton Induction 1500W</td> </tr> <tr> <td>Prestige Induction 1600 W</td> </tr> </tbody> </table> <p>The Induction Cook stove model implemented under the PoA includes Six models reflected in the above table. These Induction stoves are high efficiency cook stoves designed as an eco-friendly and modern replacement for traditional LPG stove and delivers convenient cooking without any requirement of fuel processing, thus solving the health, environment, financial and fuel collection effort required for operating traditional and LPG stoves.</p> <p>Technical specification of each type of CEP models are verified with the details provided by respective CEP suppliers /15/ and found to be consistently reported in the monitoring report.</p>	Type of CEP	Model	PO/ Implementer	Induction Cookstove	Prestige Induction 1200W	Shri Satin Credit care Network Limited, Asirvad Microfinance Limited, Sarala Women Welfare Society, Vedika Credit Capital Limited, Evangelical Social Action Forum and Samasta Microfinance Limited	dight Induction 1400W	Maharaja Induction 1800W	Pigeon Induction 1800W	Crompton Induction 1500W	Prestige Induction 1600 W
Type of CEP	Model	PO/ Implementer										
Induction Cookstove	Prestige Induction 1200W	Shri Satin Credit care Network Limited, Asirvad Microfinance Limited, Sarala Women Welfare Society, Vedika Credit Capital Limited, Evangelical Social Action Forum and Samasta Microfinance Limited										
	dight Induction 1400W											
	Maharaja Induction 1800W											
	Pigeon Induction 1800W											
	Crompton Induction 1500W											
	Prestige Induction 1600 W											

As per the PoA DD/1/ one type of CEP shall be deployed under the VPA 01 i.e., Induction stove. The numbers of CEPs deployed under the VPA has been confirmed by the monitoring database i.e. Credit Tracker Platform /37/.

The verification team has confirmed that the number of CEPs deployed under the VPA, and the actual emission reduction /year was found as follows:

VPA title and GS ID	Technology	Savings/Capacity/ Emission Reduction / Thermal efficiency
GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01	Induction cookstove	85,310 tCO ₂ e

The verification team was able to confirm that the quantity, specification and target group of the CEPs is consistent with the PoA DD /1/ and VPA DD/2/. Further, based on the review of Credit Tracker Platform /36/, physical observations from on-site visit conducted during current monitoring period:

- The VPA(s) are implemented within the boundary of the PoA as described in the PoA-DD/1/.
- The CME is same as that mentioned in the PoA-DD/1/.
- The implementation and operation of the project activity has been conducted in accordance with the description contained in the PoA-DD/1/ and VPA-DD/2/.
- All physical features of the VPA proposed in the included VPA-DD are in place.
- The project participants/VPA implementer has operated the VPA as per the included VPA-DD.

The verification team has conducted surveys via on-site visits with 11 households. It was observed that each CEP was assigned a unique household identification number. The unique identification number on each CEP, personal information of CEP owners and commissioning date of CEP was cross checked with the MIS system of POs and further checked with Credit Tracker Platform available with the CME. The operation of the CEPs was confirmed through remote surveys of owners/representatives (of CEPs). The households were asked various questions to confirm identity of the end user, operational status of the CEPs, presence and usage of baseline technologies, among others.

Additionally, induction stoves are sold by PO as a component of its clean energy loan programme. Each user in the programme receives a special identification number (User Account and Loan Account Number) that can be tracked easily using the PO's MIS system. Each user who has bought a project gadget is given a loan card, which likewise contains the same information and can be readily cross-checked with Credit Tracker Platform Screenshots/38/.

The emission reductions being claimed during this monitoring period are lesser than the estimated emission reductions in the VPA-DD, as given in the table below for comparable estimated ERs in the VPA-DD for the corresponding period:

As in VPA-DD	Estimated ERs (tCO ₂)	Actual ERs (tCO ₂)
--------------	-----------------------------------	--------------------------------

	GS12066- MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project - VPA01	309,719 VERs	85,310 VERs																				
<p>The actual distribution of Induction cookstoves for VPA are less than the maximum quantity estimated in the VPA-DD for corresponding year of CEP distributions. The information (including data and variables) provided in the MR is found to be in line with the description provided in the PoA-DD/1/.</p> <p>The verification team considers the programme description as contained in the PoA-DD/1/ is complete and accurate. The PoA-DD/1/ complies with the applied methodologies, tools, and forms. The monitoring report was compared and verified against the description provided in the PoA-DD/1/ and found to be correct.</p> <p>Grievance Mechanism The grievance mechanism involves recording the complaints from the beneficiaries by the field staffs to the household on a regular basis in a logbook/38/ which is maintained at the registered office. During the current monitoring period, no grievances were received which was verified upon checking the logbook/32/.</p>																							
Findings	No findings were raised.																						
Conclusion	<p>The verification team can confirm that all physical features (technology, project equipment, and monitoring and metering equipment) of the VPA were in place and that the CME operated the project activity in accordance with the registered VPA-DD/02/ and Validation Report/3/ during the current monitoring period and based on the information verified through the on-site audit and interviews.</p> <p>During the current monitoring period, emissions were reduced by 85,310 tCO₂e. The following values SDGs were attained in this monitoring period by VPA:</p> <table border="1" data-bbox="448 1462 1445 2054"> <thead> <tr> <th data-bbox="448 1462 679 1592">Sustainable Development Goals Targeted</th> <th data-bbox="679 1462 922 1503">SDG Impact</th> <th data-bbox="922 1462 1241 1503">Amount Achieved</th> <th data-bbox="1241 1462 1445 1529">Units/Products</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1592 679 1731">5 Gender Equality</td> <td data-bbox="679 1592 922 1659">Time saved in cooking</td> <td data-bbox="922 1592 1241 1731">1.10</td> <td data-bbox="1241 1592 1445 1731">hr/HH/week</td> </tr> <tr> <td data-bbox="448 1731 679 1924">7 Affordable and Clean Energy</td> <td data-bbox="679 1731 922 1924">Number of households having operational Induction cookstove</td> <td data-bbox="922 1731 1241 1924">133,525</td> <td data-bbox="1241 1731 1445 1924">Number Induction cookstove</td> </tr> <tr> <td data-bbox="448 1924 679 2024">8 Decent work and economic growth</td> <td data-bbox="679 1924 922 2013">Total number of jobs created</td> <td data-bbox="922 1924 1241 2024">103 (Male – 91, Female 12)</td> <td data-bbox="1241 1924 1445 2024">Number</td> </tr> <tr> <td data-bbox="448 2024 679 2054">13 Climate</td> <td data-bbox="679 2024 922 2054">Net CO₂</td> <td data-bbox="922 2024 1241 2054">85,310</td> <td data-bbox="1241 2024 1445 2054">tCO₂e VERs</td> </tr> </tbody> </table>			Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/Products	5 Gender Equality	Time saved in cooking	1.10	hr/HH/week	7 Affordable and Clean Energy	Number of households having operational Induction cookstove	133,525	Number Induction cookstove	8 Decent work and economic growth	Total number of jobs created	103 (Male – 91, Female 12)	Number	13 Climate	Net CO ₂	85,310	tCO ₂ e VERs
Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/Products																				
5 Gender Equality	Time saved in cooking	1.10	hr/HH/week																				
7 Affordable and Clean Energy	Number of households having operational Induction cookstove	133,525	Number Induction cookstove																				
8 Decent work and economic growth	Total number of jobs created	103 (Male – 91, Female 12)	Number																				
13 Climate	Net CO ₂	85,310	tCO ₂ e VERs																				

		emissions reductions achieved in this monitoring period		
--	--	---	--	--

E.4.2. Implementation and operation of the management system

Means of verification	<p>Based on the interview of CME representatives, representatives of different POs (VPA implementers) and monitoring team, it is confirmed that the CME has organized an appropriate management and operational system for monitoring and reporting.</p> <p>The CME co-ordinates with respective POs to establish a marketing and lending program for CEPs. POs staff, local distributors, technicians, and other service providers involved in marketing of CEPs to concerned households. The monitoring plan and procedures to identify each CEP sold have been followed by POs.</p> <p>MEC (Micro Energy Credits Corporation Private Limited) is CME for the PoA and responsible for inclusion of VPAs in the PoA. The Carbon Operation Manager of MEC is responsible for completion of the inclusion process.</p> <p>The Carbon Operation Manager directly reports to the CEO of CME and gets the carbon expert assistance during the VPA inclusion process, if required.</p> <p>The information about the type of CEP installed under each VPA is stored in Credit Tracker Platform/37/ that is maintained by MEC (CME).</p> <p>The Credit Tracker Platform/37/ records the unique identification number, location, installation date, and usage status of each clean energy product (CEP) in each VPA, helps to identify, locate, and verify any or all of the CEP installations in particular VPA. CME has provided the tracker output file/39/ that is used to ensure that unique identification of CEPs can be tracked. This file has been verified to also ensure that no household receives more than 1 Induction stove.</p> <p>The Carbon Operation Manager at the CME is responsible for QA/QC of the data, analysis, and reporting into the monitoring report. For survey data, a monitoring team has been organized by the CME consisting of trained monitoring staff, who conducted the surveys/ field tests. The staff was interviewed, and training records/28//28.1/ were checked to ensure that they were trained for conducting the surveys/ field tests. The monitoring manager at the CME is responsible for QA/QC of the data, analysis, and reporting into the monitoring report.</p> <p>VPA Implementer/PO field staff annually visit households included in the database to cross-check the information on the database with the factual evidence in the field. Any inconsistencies found (e.g., change in the address of a user) are updated on the database, and in the case, CEPs are found to be no longer in use, they will be clearly marked as such and excluded from emission reduction calculations.</p> <p>Original copies of sales receipts/16/, completed survey forms/35/ and carbon title transfer forms/10/ are retained by the respective POs/VPA implementers. The organizational structure and roles and responsibilities for monitoring were in line with the information provided in the VPA-</p>
------------------------------	--

	<p>DD/02/, which was confirmed through interviewing PD representatives and the situation on the ground as observed during the onsite visit conducted during current monitoring period, and the structure was considered appropriate.</p> <p>The CEP users sign a title transfer/10/ with the PO while purchasing the product. The title transfer affirms the legal rights of the carbon credits generated by the CEP to the POs. The verification team cross-checked that that carbon title forms/10/ were duly signed by the end-users. Further, a signed contractual agreement between the PO and the CME/33/ guides the transfer of the emission reduction rights to the CME. It has been checked and verified from sample carbon title transfer forms/10/ and agreement between POs and CME/33/ that for the VPA's covered in current verification, the carbon credits generated from the VPA belong to the POs and are later transferred to the CME (MEC). The verification team confirms that the process pertaining to the transfer of emission reduction rights to CME is valid and appropriate for the VPA 01 under this batch which are requesting issuance.</p>
<p>Findings</p>	<p>No findings were raised.</p>
<p>Conclusion</p>	<p>The verification team assessed the management systems in place to implement the monitoring of the PoA. This included the roles and responsibilities, data collection, transfer and aggregation procedures, data storage and archiving for the monitoring system. The roles and responsibilities data collection transfer and aggregation procedures, data storage and archiving for the monitoring system have been provided in the MR /34/. The verification team confirms that the monitoring management system of the VPA and by extension PoA is in place with the responsibilities properly identified and established as per the PoA-DD/01/.</p>

E.4.3. Post-design certification changes

E.4.3.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

Not Applicable

E.4.3.2. Corrections

Not Applicable

E.4.3.3. Inclusion of a monitoring plan

Not Applicable

E.4.3.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

Not Applicable

E.4.3.5. Changes to the programme design

Not Applicable

E.4.3.6. Addition of VPA inclusion template

Not Applicable

E.4.3.7. Change of coordination/managing entity

Not Applicable

E.4.3.8. Change specific to afforestation and reforestation activities

Not Applicable

E.5. Voluntary project activity

E.5.1. Compliance of the VPA implementation with the included VPA design document

Means of verification	<p>The reporting for this issuance has been done with only one technology i.e., Induction stove, thus section E.6 shall be dealing with distribution of Induction stove CEPs and its compliance with registered PoA-DD/1/, VPA-DD/2/ and applicable standard.</p> <p>VPA GS12067 (VPA 01) described in this section targets the promotion, distribution and sale of different models of Induction Stove systems implemented in this PoA.</p> <p>Micro Energy Credits Corporation Private Limited is the Coordinating and Managing Entity (CME) for the implementation of VPA. The CME coordinates and manages each Partner Organization (PO)/VPA Implementer and assists them in implementing each element of the monitoring plan.</p>	
	Induction stoves:	
	Induction stoves VPA Ref. #	GS12067 (VPA 01)
Location / State	Bihar, Chhattisgarh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha,	

	Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand & West Bengal.								
CEP Type	Induction Stove								
CEP Model	There are various models of Induction Stove systems distributed in the VPA, all reviewed and found acceptable under applied methodology								
VPA Implementer / PO	Satin Creditcare Network Limited (Satin), Asirvad Microfinance Limited (Asirvad), Sarala Women Welfare Society (Sarala), Vedika Credit Capital Limited (Vedika), Samasta Microfinance Limited (Samasta), Evangelical Social Action Forum (ESAF).								
Total Quantity Sold / Disseminated	134,038								
Maximum Estimated Qty CEPs in VPA ((for comparable year of distribution)	135,682								
Estimated ERs (comparable period) (tCO ₂ e)	309,719 VERs								
Actual ERs from the CEP Type (tCO ₂ e)	85,310 VERs								
<p>The Induction stoves are sold to end users and the sales data is collected by means of sales receipts /16/ at the time of sale to the end user. There are 6 models of Induction stove being distributed under the VPA 01. The technical specifications of Induction stove model were verified through the specifications provided by technology suppliers /15/ and found to be consistent with the monitoring report. The PO has a mechanism of allocating a unique ID to each CEP and the end user so that there is no inter and/or intra-VPA double counting.</p> <p>The year wise implementation of induction stove under VPA 01 is mentioned in the table below:</p> <table border="1" data-bbox="504 1507 1385 1664"> <thead> <tr> <th>Year</th> <th>Induction Stove</th> </tr> </thead> <tbody> <tr> <td>2022</td> <td>82,987</td> </tr> <tr> <td>2023</td> <td>51,051</td> </tr> <tr> <td>Total</td> <td>134,038</td> </tr> </tbody> </table> <p>During onsite surveys, the end users were asked if we could see the product installed to confirm the model in use. It has been checked by the verification team that the verified VPA are way below the threshold /02/</p> <p>All technical specifications/15/ were reviewed and induction stove models were found to be meeting the applied methodology requirements and PoA eligibility criteria of PoA and therefore, found acceptable by the verification team, as provisioned in section A.3 of VPA-DD/2/.</p>		Year	Induction Stove	2022	82,987	2023	51,051	Total	134,038
Year	Induction Stove								
2022	82,987								
2023	51,051								
Total	134,038								
Findings	CAR#02 & CAR#01 were raised and resolved.								

Conclusion	<ul style="list-style-type: none"> • The verification team is of the opinion that physical features of the VPA have been implemented in accordance with the VPA-DD/02/. • It is also confirmed, through the review of the supporting documentation, that physical features of the component VPA have been implemented in accordance with the VPA-DD/02/. • The VPA was also found to be completely operational in line with the VPA-DD/02/. • The information provided in the relevant sections of the monitoring report are appropriately describe the implementation and operational status of the PoA.
-------------------	---

E.5.2. Post-Design Certification changes

E.5.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

Not Applicable

E.5.2.2. Corrections

Not Applicable

E.5.2.3. Changes to the start-date of the crediting period

Not Applicable

E.5.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline.

Not Applicable as this is the first monitoring period of the VPA under GS.

E.5.2.5. Changes to project design of approved project

There are no changes made during this monitoring period.

E.5.3. Compliance of the registered monitoring plan with applied methodologies and standardized baselines

Means of verification	The monitoring plan contained in the VPA-DD/02/ was reviewed in relation to the monitoring requirements of the applied methodologies "Metered & Measured Energy Cooking Devices" (version 1.2)/06/, as well as the PoA DD/1/, bearing in mind the technology involved. In light of the review conducted, it was found that the monitoring plan in the VPA-DD/2/ contains all the required parameters to be monitored in the context of the VPA design and description and allows determination of emission reductions according to the PoA DD/1/ and applied methodology/06/.
Findings	CL#02 was raised and resolved.
Conclusion	The monitoring plan is in line with the approved methodology, Gold Standard Simplified Metered & Measured Energy Cooking Devices (version 1.2)/06/, that is included in the registered PoA DD/1/ and VPA-DD/2/. The monitoring plan is in accordance with the applied methodology /06/ that is included in the VPA-DD/2/.

E.5.4. Compliance of monitoring activities with the registered monitoring plan.
E.5.4.1. Data and parameters fixed ex ante or at renewal of crediting period
SDG13: Amount of baseline fuel i used in device j in the baseline, $P_{b,i,j}$

Means of verification	of $P_{b,i,j}$ -- The value of this parameter is considered is mentioned below as per VPA-DD/2/. This was checked with the revised accepted PoA-DD and included VPA-DD/2/ and cross checked with the baseline Kitchen performance Test proved by the CME. This value is used towards determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD.																																														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="background-color: #00b0c0; color: white;">VPA Number</th> <th rowspan="2" style="background-color: #00b0c0; color: white;">State</th> <th colspan="2" style="background-color: #00b0c0; color: white;">$P_{b,i,j}$ (tonnes/HH/year)</th> </tr> <tr> <th style="background-color: #00b0c0; color: white;">Wood</th> <th style="background-color: #00b0c0; color: white;">LPG</th> </tr> </thead> <tbody> <tr> <td rowspan="12" style="text-align: center; vertical-align: middle;">VPA 01</td> <td>Bihar</td> <td style="text-align: center;">1.977</td> <td style="text-align: center;">0.030</td> </tr> <tr> <td>Chhattisgarh</td> <td style="text-align: center;">1.937</td> <td style="text-align: center;">0.032</td> </tr> <tr> <td>Jharkhand</td> <td style="text-align: center;">2.007</td> <td style="text-align: center;">0.029</td> </tr> <tr> <td>Karnataka</td> <td style="text-align: center;">2.024</td> <td style="text-align: center;">0.027</td> </tr> <tr> <td>Kerala</td> <td style="text-align: center;">1.865</td> <td style="text-align: center;">0.029</td> </tr> <tr> <td>Madhya Pradesh</td> <td style="text-align: center;">1.829</td> <td style="text-align: center;">0.027</td> </tr> <tr> <td>Maharashtra</td> <td style="text-align: center;">1.832</td> <td style="text-align: center;">0.029</td> </tr> <tr> <td>Odisha</td> <td style="text-align: center;">1.852</td> <td style="text-align: center;">0.028</td> </tr> <tr> <td>Rajasthan</td> <td style="text-align: center;">1.944</td> <td style="text-align: center;">0.029</td> </tr> <tr> <td>Tamil Nadu</td> <td style="text-align: center;">1.863</td> <td style="text-align: center;">0.025</td> </tr> <tr> <td>Uttar Pradesh</td> <td style="text-align: center;">1.974</td> <td style="text-align: center;">0.032</td> </tr> <tr> <td>Uttarakhand</td> <td style="text-align: center;">1.842</td> <td style="text-align: center;">0.031</td> </tr> <tr> <td>West Bengal</td> <td style="text-align: center;">1.917</td> <td style="text-align: center;">0.031</td> </tr> </tbody> </table>	VPA Number	State	$P_{b,i,j}$ (tonnes/HH/year)		Wood	LPG	VPA 01	Bihar	1.977	0.030	Chhattisgarh	1.937	0.032	Jharkhand	2.007	0.029	Karnataka	2.024	0.027	Kerala	1.865	0.029	Madhya Pradesh	1.829	0.027	Maharashtra	1.832	0.029	Odisha	1.852	0.028	Rajasthan	1.944	0.029	Tamil Nadu	1.863	0.025	Uttar Pradesh	1.974	0.032	Uttarakhand	1.842	0.031	West Bengal	1.917	0.031
	VPA Number			State	$P_{b,i,j}$ (tonnes/HH/year)																																										
		Wood	LPG																																												
	VPA 01	Bihar	1.977	0.030																																											
		Chhattisgarh	1.937	0.032																																											
		Jharkhand	2.007	0.029																																											
		Karnataka	2.024	0.027																																											
		Kerala	1.865	0.029																																											
		Madhya Pradesh	1.829	0.027																																											
		Maharashtra	1.832	0.029																																											
		Odisha	1.852	0.028																																											
		Rajasthan	1.944	0.029																																											
Tamil Nadu		1.863	0.025																																												
Uttar Pradesh		1.974	0.032																																												
Uttarakhand		1.842	0.031																																												
West Bengal	1.917	0.031																																													
Findings	No findings were raised.																																														
Conclusion	The value mentioned in the Monitoring Report /34/ and Emission Reduction Spreadsheet /05/ are consistent with the approach given in VPA-DD/2/. Hence the applied value is correct and justified.																																														

SDG13: The net calorific value of the baseline fuel type i, $NCV_{b,i}$

Means of verification	$NCV_{b,i}$ -- The value is fixed and is derived from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 – Energy, Chapter 1 – Introduction, Table 1.2 (pg 1.18 and 1.19)/30/.
------------------------------	--

	<p>This value is used towards determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD/02/.</p> <table border="1"> <thead> <tr> <th>VPA Number</th> <th>Value (Wood)</th> <th>Value (LPG)</th> </tr> </thead> <tbody> <tr> <td>VPA 01</td> <td>0.0156 Tj/tonne</td> <td>0.0473 Tj/tonne</td> </tr> </tbody> </table>	VPA Number	Value (Wood)	Value (LPG)	VPA 01	0.0156 Tj/tonne	0.0473 Tj/tonne
VPA Number	Value (Wood)	Value (LPG)					
VPA 01	0.0156 Tj/tonne	0.0473 Tj/tonne					
Findings	No findings were raised.						
Conclusion	The value mentioned in the Monitoring Report /34/ and Emission Reduction Spreadsheet/05/are consistent with the registered VPA-DD/2/. The applied value is correct and justified.						

SDG13: CO2 emission factor arising from use of fuels in baseline scenario, $EF_{b,i,CO2}$

Means verification of	<p>$EF_{b,i,CO2}$ - The value is fixed and is derived from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 – Energy, Chapter 1 – Introduction, Table 1.2 (pg 1.18 and 1.19)/30/.</p> <p>This value is used for the determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD/02/.</p> <table border="1"> <thead> <tr> <th>VPA Number</th> <th>Value (Wood)</th> <th>Value (LPG)</th> </tr> </thead> <tbody> <tr> <td>VPA 01</td> <td>112 tCO₂/TJ</td> <td>63.1 tCO₂/TJ</td> </tr> </tbody> </table>	VPA Number	Value (Wood)	Value (LPG)	VPA 01	112 tCO ₂ /TJ	63.1 tCO ₂ /TJ
VPA Number	Value (Wood)	Value (LPG)					
VPA 01	112 tCO ₂ /TJ	63.1 tCO ₂ /TJ					
Findings	No findings were raised.						
Conclusion	The value mentioned in the Monitoring Report/34/ and Emission Reduction Spreadsheet /05/are consistent with the registered VPA-DD/2/. The applied value is correct and justified.						

SDG13: Non - CO2 emission factor arising from use of fuels in baseline scenario, $EF_{b,i,non-CO2}$

Means verification of	<p>$EF_{b,i,non-CO2}$ - The value is default and is derived from the applied Methodology i.e., Metered & Measured Energy Cooking Devices (version 1.2)/06/.</p> <p>This value is used for the determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD.</p> <table border="1"> <thead> <tr> <th>VPA Number</th> <th>Value (Wood)</th> <th>Value (LPG)</th> </tr> </thead> <tbody> <tr> <td>VPA 01</td> <td>9.46 tCO₂/TJ</td> <td>0 tCO₂/TJ</td> </tr> </tbody> </table>	VPA Number	Value (Wood)	Value (LPG)	VPA 01	9.46 tCO ₂ /TJ	0 tCO ₂ /TJ
VPA Number	Value (Wood)	Value (LPG)					
VPA 01	9.46 tCO ₂ /TJ	0 tCO ₂ /TJ					
Findings	No findings were raised.						
Conclusion	The value mentioned in the Monitoring Report/34/ and Emission Reduction Spreadsheet /05/are consistent with the registered VPA-DD/2/. The applied value is correct and justified.						

SDG13: Energy efficiency of baseline device j with fuel i, $\eta_{b,i,j}$

Means verification of	<p>$\eta_{b,i,j}$ - The value of Three stone firewood stove is default and is derived from the applied Methodology i.e., Metered & Measured Energy Cooking Devices (version 1.2)/06/. The value of LPG Stove is derived from the literature review i.e., Roadmap for Access to Clean Cooking Energy in India published by the Council on Energy, Environment and Water (CEEW)/31/.</p> <p>This value is used for the determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD.</p> <table border="1"> <thead> <tr> <th>VPA Number</th> <th>Three stone firewood</th> <th>LPG stove</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	VPA Number	Three stone firewood	LPG stove			
VPA Number	Three stone firewood	LPG stove					

		stoves	
	VPA 01	0.10	0.57
Findings	No findings were raised.		
Conclusion	The value mentioned in the Monitoring Report/37/ and Emission Reduction Spreadsheet /05/ are consistent with the registered VPA-DD/2/. The applied value is correct and justified.		

SDG13: Percentage of fuel type i in the baseline situation, Percentage of fuel_i

Means of verification	Percentage of fuel _i - The value of the percentage of meals cooked on different type of stoves/fuel by households in different states of India has been estimated through a baseline survey/44/. This value is used for the determination of baseline emissions. The value of this parameter considered is mentioned below as per VPA-DD.			
	VPA Number	State	Baseline survey	
			Wood	LPG
	VPA 01	Bihar	69%	31%
		Chhattisgarh	69%	31%
		Jharkhand	68%	32%
		Karnataka	70%	30%
		Kerala	68%	32%
		Madhya Pradesh	65%	35%
		Maharashtra	66%	34%
		Odisha	68%	32%
		Rajasthan	68%	32%
		Tamil Nadu	62%	38%
Uttar Pradesh		68%	32%	
Uttarakhand		68%	32%	
West Bengal	66%	34%		
Findings	CAR#01 was raised and resolved.			
Conclusion	The value mentioned in the Monitoring Report/34/ and Emission Reduction Spreadsheet /05/ are consistent with the registered VPA-DD and the baseline survey/2/&/44/. The applied value is correct and justified.			

SDG13: Non-renewability status of woody biomass fuel i during year y, f_{NRB,i,y}

Means of verification	f _{NRB,i,y} - The value of of f _{NRB} is derived from the f _{NRB} calculation sheet provided by the CME and is in line with Tool 30 "Calculation of the fraction of non-renewable biomass"/41/. This value is used for the determining calculation of the fraction of non-renewable biomass. The value of this parameter considered is mentioned below as per VPA-DD.		
	VPA Number	State	f_{NRB}
	VPA 01	Bihar	0.969
		Chhattisgarh	0.660
		Jharkhand	0.832
		Karnataka	0.642
		Kerala	0.728
Madhya Pradesh		0.826	

	Maharashtra	0.802
	Odisha	0.776
	Rajasthan	0.889
	Tamil Nadu	0.737
	Uttar Pradesh	0.951
	Uttarakhand	0.951
	West Bengal	0.947
Findings	CAR#01 was raised and resolved.	
Conclusion	The value mentioned in the Monitoring Report/34/ and Emission Reduction Spreadsheet /05/ are consistent with the registered VPA-DD/2/ & f_{NRB} calculation sheet provided by the CME/07/. The applied value is correct and justified.	

E.5.4.2. Data and parameters monitored (Carbon & SDG)
SDG13: Thermal efficiency of the project device, $\eta_{p,d,y}$

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annual
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the PoA-DD/1/ and VPA-DD/2/
	Monitoring equipment	Not applicable
	Calibration frequency /interval:	Not applicable
	How were the values in the monitoring report verified?	<p>The values reported in the final MR /34/ were verified through the technical specifications provided by the suppliers of the respective model of the induction stove distributed under the current monitoring period.</p> <p>The verified value of this parameter for Induction stoves sold/distributed under the relevant VPA at the end of the current monitoring period is as per PoA-DD/1/ and VPA-DD/2/ constraint. Additionally, each household in the database only receives one Induction stove.</p> <p>These measures ensure that no single household gets emission reductions higher than those that were validated at the time of PoA and VPAs registration (equivalent level of wood/LPG consumption in the baseline).</p> <p>The verification team has verified the thermal efficiency of models disturbed in the current monitoring period and found to be consistent</p>

		<p>with the technical specifications provided by respective product suppliers. In case the induction stove models have more than one setting for wattage, the conservative value is considered in line with VPA-DD/2/.</p> <p>The verification team also checked the type of Induction stoves in all of the surveyed households during the onsite surveys. The information thus obtained was cross-checked against technical specifications of the device and it was confirmed if it matched.</p> <p>Specific to distribution of induction CEPs, each household is given a "user account identification number". This number can be used to establish that one household receives only one product since the number is unique and cannot be repeated. The verification team checked the uniqueness of "user account identification number" for induction CEPs across the VPA covered using conditional formatting and confirms that only a single induction device has been provided to each household. The assessment team has also verified the tracker output file provided by CME that includes consolidated list of all CEP sales made under the Programme and confirms that only 1 induction CEP has been implemented in a single household.</p>													
	<table border="1"> <thead> <tr> <th data-bbox="826 1137 1273 1187">Model</th> <th data-bbox="1273 1137 1471 1187">Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="826 1187 1273 1236">Prestige Induction 1600W</td> <td data-bbox="1273 1187 1471 1236">90.21%</td> </tr> <tr> <td data-bbox="826 1236 1273 1285">Prestige Induction 1200W</td> <td data-bbox="1273 1236 1471 1285">89.35%</td> </tr> <tr> <td data-bbox="826 1285 1273 1335">Crompton Induction 1500W</td> <td data-bbox="1273 1285 1471 1335">90%</td> </tr> <tr> <td data-bbox="826 1335 1273 1384">Pigeon Induction 1800W</td> <td data-bbox="1273 1335 1471 1384">91%</td> </tr> <tr> <td data-bbox="826 1384 1273 1433">d.light Induction 1400W</td> <td data-bbox="1273 1384 1471 1433">90%</td> </tr> <tr> <td data-bbox="826 1433 1273 1482">Maharaja Induction 1800W</td> <td data-bbox="1273 1433 1471 1482">91%</td> </tr> </tbody> </table>	Model	Value	Prestige Induction 1600W	90.21%	Prestige Induction 1200W	89.35%	Crompton Induction 1500W	90%	Pigeon Induction 1800W	91%	d.light Induction 1400W	90%	Maharaja Induction 1800W	91%
	Model	Value													
	Prestige Induction 1600W	90.21%													
Prestige Induction 1200W	89.35%														
Crompton Induction 1500W	90%														
Pigeon Induction 1800W	91%														
d.light Induction 1400W	90%														
Maharaja Induction 1800W	91%														
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Type/ model of Induction stoves given in ER sheets were further checked with the credit tracker output file/37/ during document review of the supporting documents shared by CME. No discrepancy in data was observed regarding models of Induction stoves distributed.</p>														
<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Induction stoves installation information is maintained in the MEC tracker system that records address of the household. The tracker system is monitored continuously.</p> <p>It can be confirmed that management ensuring the correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place.</p>														
<p>In case project participants</p>	<p>Not Applicable</p>														

	have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and procedures to be applied) and applied methodology/06/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG13: The amount of energy used in the project scenario by device d in year y (MWh), EG_{p,d,y}

Relevant SDG Indicator	SDG13: Climate Action															
Means of verification	Criteria/Requirements	Assessment/Observation														
	Measuring /Reading /Recording frequency	Continuously (Aggregated monthly)														
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the PoA-DD/1/ and VPA-DD/2/														
	Monitoring equipment	Data Logger (analog/digital)														
	Calibration frequency /interval:	Annual														
	How were the values in the monitoring report verified?	<p>The values reported in the final MR /34/ (and corresponding ER sheets /05/) were verified through the data loggers that records the amount of energy consumption used by devices. The entire database for the VPA included in the current monitoring period is presented in the ER sheet as VPA Database /5/</p> <p>The verified value for induction stove under the VPA at the end of the current monitoring period are:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #00A6C9; color: white;">State</th> <th style="background-color: #00A6C9; color: white;">Value EG_{p,d,y} (per device)</th> </tr> </thead> <tbody> <tr> <td>Bihar</td> <td>0.34</td> </tr> <tr> <td>Chhattisgarh</td> <td>0.54</td> </tr> <tr> <td>Jharkhand</td> <td>0.55</td> </tr> <tr> <td>Karnataka</td> <td>0.37</td> </tr> <tr> <td>Kerala</td> <td>0.20</td> </tr> <tr> <td>Madhya Pradesh</td> <td>0.34</td> </tr> </tbody> </table>	State	Value EG _{p,d,y} (per device)	Bihar	0.34	Chhattisgarh	0.54	Jharkhand	0.55	Karnataka	0.37	Kerala	0.20	Madhya Pradesh	0.34
	State	Value EG _{p,d,y} (per device)														
Bihar	0.34															
Chhattisgarh	0.54															
Jharkhand	0.55															
Karnataka	0.37															
Kerala	0.20															
Madhya Pradesh	0.34															

		Maharashtra	0.39
		Odisha	0.51
		Rajasthan	0.38
		Tamil Nadu	0.29
		Uttar Pradesh	0.51
		Uttarakhand	0.57
		West Bengal	0.43
	If applicable, has the reported data been cross-checked with other available data?	Yes. The information of amount of energy consumption was checked through the data logger data provided by the CME and through interviews of the household representatives.	
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	<p>The CME supervises the activities of the PO, providing training, guidelines and templates to facilitate accurate data collection. Total 40 energy meters were installed in each state in order to account for device failure or connectivity issue. At any given day, data was collected from atleast >30 devices per state. The same was verified from the data from data logger.</p> <p>Data is collected by field staff on monthly basis. The data was reviewed by conducting CME and PO interviews; the record keeping processes explained were found reliable.</p>	
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable	
Findings	No findings were raised		
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and procedures to be applied) and applied methodology/06/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.		

SDG13: The emissions factor of the project electricity system in year y, $EF_{el,y}$

Relevant SDG Indicator	SDG13: Climate Action		
Means of verification	Criteria/Requirements	Assessment/Observation	
	Measuring /Reading /Recording frequency	Not Applicable	

	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the PoA-DD/1/ and VPA-DD/2/
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	The value is derived from the latest UNFCCC Harmonised grid emission factor dataset. The Value of this parameter is fixed as 0.95. The value has been sourced from the documents published by UNFCCC dataset.
	If applicable, has the reported data been cross-checked with other available data?	The value reported in the ER calculation sheet /05/ was checked with MR/34/ and with source provided by the UNFCC i.e., Harmonised grid emission factor dataset and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the QA/QC procedures are in place. The latest harmonised grid emission factor dataset provided by UNFCCC has been appropriately reported.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and procedures to be applied), CO ₂ Baseline database for the latest harmonised grid emission factor dataset published by the UNFCCC/46/ and applied methodology/06/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG13: Average technical transmission and distribution losses for providing electricity to source j in year y, TDL_{j,y}.

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Once/monitoring period
	Is measuring and reporting frequency in accordance with the monitoring plan and	Yes. The frequency is in line with the registered PoA-DD/1/ and VPA-DD/2/

	monitoring methodology? (Yes / No)	
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	As per the applied tool 05/40/ paragraph 7.2 "Data / Parameter table 3". For the current monitoring period default value of 20% is considered for this parameter for the VPA 01.
	If applicable, has the reported data been cross-checked with other available data?	The value reported in the ER calculation sheet /05/ was checked with MR/34/ and applied applied tool 05/40/ and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the QA/QC procedures are in place. The data provided in applied applied tool 05/40/ has been appropriately reported and used in ER calculation sheet /5/ and MR/34/.
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and procedures to be applied) and applied tool 05/40/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

SDG13: Leakage in project scenario in year y, LE_y

Relevant SDG Indicator	SDG13: Climate Action	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Not Applicable
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PoA-DD/1/ and VPA-DD/2/
	Monitoring equipment	Not Applicable
	Calibration frequency /interval:	Not Applicable
	How were the values in the monitoring report verified?	As per the applied methodology/06/ paragraph 4.2 "Data and Parameters monitored". For the current monitoring period follows the requirements of Section 3.11 of RECH V4.0 i.e., Option 1: Apply a discount value of 0.95 to the emission reductions

		<p>to approximate leakage emissions, or Option 2: Evaluate leakage following the procedure described in RECH V4.0. Option 1 of the Requirement is considered for this parameter for the VPA 01.</p> <p>The value of this parameter has been calculated using the formula: $LE=BE \times (1-\text{Leakage emission factor})$.</p> <table border="1" data-bbox="874 544 1444 1279"> <thead> <tr> <th style="background-color: #00A0C0;">State</th> <th style="background-color: #00A0C0;">Leakage (per device)</th> </tr> </thead> <tbody> <tr><td>Bihar</td><td>0.052</td></tr> <tr><td>Chhattisgarh</td><td>0.058</td></tr> <tr><td>Jharkhand</td><td>0.075</td></tr> <tr><td>Karnataka</td><td>0.041</td></tr> <tr><td>Kerala</td><td>0.024</td></tr> <tr><td>Madhya Pradesh</td><td>0.046</td></tr> <tr><td>Maharashtra</td><td>0.051</td></tr> <tr><td>Odisha</td><td>0.064</td></tr> <tr><td>Rajasthan</td><td>0.054</td></tr> <tr><td>Tamil Nadu</td><td>0.036</td></tr> <tr><td>Uttar Pradesh</td><td>0.076</td></tr> <tr><td>Uttarakhand</td><td>0.086</td></tr> <tr><td>West Bengal</td><td>0.064</td></tr> </tbody> </table>	State	Leakage (per device)	Bihar	0.052	Chhattisgarh	0.058	Jharkhand	0.075	Karnataka	0.041	Kerala	0.024	Madhya Pradesh	0.046	Maharashtra	0.051	Odisha	0.064	Rajasthan	0.054	Tamil Nadu	0.036	Uttar Pradesh	0.076	Uttarakhand	0.086	West Bengal	0.064
	State	Leakage (per device)																												
	Bihar	0.052																												
	Chhattisgarh	0.058																												
Jharkhand	0.075																													
Karnataka	0.041																													
Kerala	0.024																													
Madhya Pradesh	0.046																													
Maharashtra	0.051																													
Odisha	0.064																													
Rajasthan	0.054																													
Tamil Nadu	0.036																													
Uttar Pradesh	0.076																													
Uttarakhand	0.086																													
West Bengal	0.064																													
If applicable, has the reported data been cross-checked with other available data?	The value reported in the ER calculation sheet /05/ was checked with MR/34/ and applied applied methodology/06/ and found to be consistent.																													
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the QA/QC procedures are in place. The data provided in applied applied methodology/06/ has been appropriately reported and used in ER calculation sheet /5/ and MR/34/.																													
In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable																													
Findings	No findings were raised.																													
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and																													

procedures to be applied) and applied methodology /06/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.

SDG 05: Time saved during cooking, $t_{HH,project}$.

Relevant SDG Indicator	SDG 05: Gender Equality							
Means of verification	Criteria/Requirements	Assessment/Observation						
	Measuring /Reading /Recording frequency	Annual						
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The frequency is in line with the registered PoA-DD/1/ and VPA-DD/2/						
	Monitoring equipment	Not Applicable						
	Calibration frequency /interval:	Not Applicable						
	How were the values in the monitoring report verified?	Value of this parameter is being recorded during the monitoring survey conducted by the CME by recording the statements stated by the end user. <table border="1" style="margin-top: 10px; width: 100%;"> <thead> <tr> <th style="background-color: #00A6C9; color: white;">Year</th> <th style="background-color: #00A6C9; color: white;">Hours/HH/week</th> </tr> </thead> <tbody> <tr> <td>Year 2022</td> <td>1.10</td> </tr> <tr> <td>Year 2023</td> <td>1.10</td> </tr> </tbody> </table>	Year	Hours/HH/week	Year 2022	1.10	Year 2023	1.10
	Year	Hours/HH/week						
	Year 2022	1.10						
	Year 2023	1.10						
If applicable, has the reported data been cross-checked with other available data?	Calculation approach reported in the ER calculation sheet was found to be satisfactory and in line with the registered monitoring plan.							
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	This value is calculated based on the time consumed by the end user to bring the fuelwood in the baseline scenario.							
Findings	No findings were raised.							
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/1/2/ (as per measurement methods and procedures to be applied) and applied methodology /06/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.							

SDG07: Number of households with operating induction cookstove, AACSHH,project.

Relevant SDG Indicator	SDG7: Affordable and Clean Energy								
Means of verification	Criteria/Requirements	VVB Assessment							
	Measuring /Reading /Recording frequency	Annual							
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency in line to the PoA-DD/1/ and VPA-DD/2/.							
	How were the values in the monitoring report verified?	The post monitoring records/34/ were checked to identify as part of the assessment as well as during the interviews conducted with the 11 selected beneficiaries during on site visit the intended beneficiaries who are having access to affordable, reliable and modern energy services. The value of the parameter considered to be as mentioned below, which was found to be acceptable.							
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #00A6C9; color: white;">VPA#</th> <th style="background-color: #00A6C9; color: white;">Year 2022</th> <th style="background-color: #00A6C9; color: white;">Year 2023</th> </tr> </thead> <tbody> <tr> <td>VPA 01</td> <td>82,657</td> <td>50,868</td> </tr> </tbody> </table>		VPA#	Year 2022	Year 2023	VPA 01	82,657	50,868
	VPA#	Year 2022	Year 2023						
VPA 01	82,657	50,868							
If applicable, has the reported data been cross-checked with other available data?	Not Applicable								
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.								
Findings	No findings were raised.								
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting are as per the GS PoA-DD/1/ and registered VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.								

SDG 08: Quantitative Employment and income generation, QE IG_{project}.

Relevant SDG Indicator	SDG 08: Decent Work & Economic Growth	
Means of verification	Criteria/Requirements	VVB Assessment

	Measuring /Reading /Recording frequency	Annually												
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the frequency is in line to the PoA-DD/1/ and VPA-DD/2/.												
	How were the values in the monitoring report verified?	<p>The Employment records/25/ were checked to identify as part of the assessment who are being employed.</p> <p>The value of the parameter considered to be as mentioned below, which was found to be acceptable.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Male</th> <th>Female</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>2022</td> <td>91</td> <td>12</td> <td>103</td> </tr> <tr> <td>2023</td> <td>91</td> <td>12</td> <td>103</td> </tr> </tbody> </table>	Year	Male	Female	Total	2022	91	12	103	2023	91	12	103
	Year	Male	Female	Total										
	2022	91	12	103										
2023	91	12	103											
If applicable, has the reported data been cross-checked with other available data?	Not Applicable													
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The QA/QC processes were deemed to be appropriate and trustworthy.													
Findings	No findings were raised.													
Conclusion	Sustainability criteria was found to be fulfilled. The monitoring and reporting is as per the GS PoA-DD /1/ and registered VPA-DD/2/. The representation of the monitored value was found to be accurate which was easily verifiable. No discrepancy in data monitoring, data management, transfer of data or QA/QC procedures was found.													

E.5.5. Implementation of sampling plan

Means of verification	<p>The sampling plan was implemented by the CME in accordance with the applied methodology/06/ and CDM Standard for sampling and surveys for CDM PAs and PoAs/19/. Two sampling sets were picked from population serviced under VPA viz, Usage/Project survey in project scenario p during year y and EG_{p,d,y}. Thus, the project database with the demographic cohorts identified during the sampling survey serves along with the user age (whether non-beneficiary, beneficiary and user for last 1 year and more) as the sample frames for the project population.</p> <p>The VPA covers 13 states in the VPA, where the sampling has been conducted for each state considering the homogeneity of the cooking requirements in each state. Therefore, the approach of simple random sampling from the entire population is acceptable.</p> <p>Parameter to be covered through the monitoring surveys: The CME has conducted following kinds of surveys:</p> <ul style="list-style-type: none"> • Project and Usage Surveys
------------------------------	--

	<ul style="list-style-type: none"> The amount of energy used in the project scenario ($EG_{p,d,y}$) <p>Monitoring survey (by CME) duration: The monitoring survey (field survey / tests) was carried out by CME representatives between the following duration for the current monitoring period.</p> <table border="1"> <thead> <tr> <th>Technology</th> <th>Monitoring Dates</th> <th>Monitoring Frequency</th> <th>Monitoring survey applicable for this MP?</th> </tr> </thead> <tbody> <tr> <td>Induction stoves</td> <td>17/04/2023 to 15/05/2023</td> <td>Annual</td> <td>Yes</td> </tr> </tbody> </table> <p>Thus, it is confirmed that monitoring survey is applicable for the entire monitoring period.</p> <p>Sample Size calculation for different tests Project/ Usage survey and $EG_{p,d,y}$: All monitored parameters were evaluated using simple random sampling with the requisite precision/confidence. Project/ Usage survey /02/ was done to determine usage and changes in circumstances experienced following the induction project's deployment. The sample size was determined using the applied methodology Version 1.2 guideline/06/, which indicates that for a group size more than 1000, a minimum sample size of 100 is required for such a survey. Using MS Excel random selection algorithm, CME drew samples at random from the Monitoring Database. The representation of different age groups of distribution was also considered with 30 samples from each vintage picked in accordance with methodological sampling requirements. For Example: the usage surveys were conducted on 100 samples randomly chosen induction stoves dispersed in the state of Bihar, India from a population size of 10,383. Precision was met for all the parameter "$EG_{p,d,y}$" in all states other than Madhya Pradesh. Lower bound for the "$EG_{p,d,y}$" parameter was used for Madhya Pradesh.</p> <p>All parameters of interest are included in the ER spreadsheet for the VPA. These were checked for the input values as well as formula applied and were found consistent. The reliability (demonstration of precision achieved after the survey results) is depicted in the ER calculation sheets corresponding to final Monitoring Report, which were also found correct.</p>	Technology	Monitoring Dates	Monitoring Frequency	Monitoring survey applicable for this MP?	Induction stoves	17/04/2023 to 15/05/2023	Annual	Yes
Technology	Monitoring Dates	Monitoring Frequency	Monitoring survey applicable for this MP?						
Induction stoves	17/04/2023 to 15/05/2023	Annual	Yes						
Findings	CAR#01 was raised and resolved.								
Conclusion	The verification team confirmed that the sampling plan and the parameter values are in accordance with the monitoring plan provided in PoA DD/1/ and the VPA DD/2/.								

E.5.6. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Energy meter required to monitor the parameters, as verified through the registered monitoring plan as outline in the VPA-DD/2/ and PoA-DD/1/.
Findings	No findings were raised.
Conclusion	The verification team has determined that no monitoring equipment has been used by the PP. Therefore, there was no requirement of calibration. This was in accordance with the accepted monitoring plan and the applied monitoring methodology.

E.5.7. Assessment of data and calculation of emission reductions or net removals

E.5.7.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

Means of verification	<p><u>SDG-13: Climate Action</u></p> <p>The verification team verified that.</p> <ol style="list-style-type: none"> a) A complete set of data for the monitoring period was available for the monitoring period and the verification of each monitoring parameter is elaborated under Section E.6.4 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheets/5/ of final Monitoring Report /34/. b) The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.6.4 of this report. c) The calculations of baseline emissions as presented in the corresponding ER calculations sheet of final Monitoring Report were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of each relevant VPA-DD/2/, PoA-DD/1/ and the applied methodology/06/. d) All assumptions used in the emission calculations were found appropriate and therefore justified e) Appropriate emission factors, IPCC default factors/26/ and other reference values have been correctly applied. This has also been elaborated under Section E.6.4 of this report. f) No standardized baseline was prescribed in the PoA-DD and therefore it has not been applied. g) There is no pro-rata approach applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol. <p>The following equations were used to determine the baseline emissions as provided in the monitoring report /34/ and applied in the corresponding ER calculations sheets /05/. The equations used were found consistent with the revised accepted PoA-DD/1/, VPA-DD/2/ and the applied methodology.</p> <p>Metered & Measured Energy Cooking Devices /06/:</p> <p>Total ERs achieved in the current monitoring period by all types of Induction stoves distributed in the relevant VPA is calculated using the following equations:</p> <p>Ex post baseline emission for each lamp type <i>i</i> is calculated with the following equation:</p> $BE_y = EG_{p,useful,y} \times EF_{b,useful}$ <p>Where:</p> <p>BE_y = Baseline emissions in the year y (tCO₂e) EG_{p,useful,y} = The amount of useful energy applied in the project in year y (TJ) EF_{b,useful} = Baseline emissions factor (tCO₂e per TJ pf energy input)</p> <p>The useful project energy in year y shall be calculated as follows (Case</p>
------------------------------	--

1):

$$EG_{p,useful,y} = \sum_d EG_{p,d,y} \times 0.0036 \times \eta_{p,d,y}$$

Where:

- EG_{p,d,y} The amount of electricity used in the project scenario by device *d* in year *y* (MWh)
- 0.0036 Factor to convert MWh to TJ
- η_{p,d,y} Energy efficiency of the project device, *d* in year *y* (fraction)
- D Project device *d*

The baseline emission factor shall be determined applying the equation below (Case 1):

$$EF_{b,useful} = \frac{\sum_k \left(\sum_{i,j} P_{b,i,j} \times \text{Percentage of fuel}_i \times (EF_{b,i,CO_2} \times f_{NRB_{i,y}} + EF_{b,i,non-CO_2}) \times NCV_{b,i} \right)}{\sum_k \left(\sum_{i,j} P_{b,i,j} \times \text{Percentage of fuel}_i \times NCV_{b,i} \times \eta_{b,i,j} \right)}$$

Where:

- P_{b,i,j} Amount of baseline fuel *i* used in device *j* in the baseline (tonnes)
- EF_{b,i,CO₂} CO₂ emission factor of the baseline fuel *i* (tCO₂e/TJ)
- EF_{b,i,non-CO₂} Non-CO₂ emission factor of the baseline fuel *i* (tCO₂e/TJ)
- f_{NRB_{i,y}} Non-renewability status of woody biomass fuel *i* during year *y*
- NCV_{b,i} The net calorific value of the baseline fuel type *i* (TJ/tonne)
- η_{b,i,j} Energy of baseline device *j* with fuel *i* (fraction)
- K Household *k* from the target population, where applicable
- J Baseline devices *j*
- I Baseline fuel *i*

States	EF _{b,useful}	EG _{p,useful,y}	Total Sales-2022	Total Sales-2023	BE _y - 2022	BE _y - 2023
Bihar	956.4	0.00109	5,149	5,234	5,359	5,448
Chhattisgarh	674.1	0.00173	5,845	2,269	6,807	2,526
Jharkhand	843.6	0.00179	10,568	4,693	15,770	7,003
Karnataka	682.5	0.00121	2,736	1,579	2,239	1,292

Kerala	739.7	0.00064	1,013	2,032	471	946
Madhya Pradesh	835.1	0.00109	1,965	1,176	1,773	1,061
Maharashtra	801.5	0.00126	1,037	581	1,048	587
Odisha	784.6	0.00163	10,301	5,359	13,190	6,862
Rajasthan	889.4	0.00121	973	592	1,037	631
Tamil Nadu	766.0	0.000954	10,056	10,857	7,286	7,867
Uttar Pradesh	931.5	0.00164	15,622	6,814	23,852	10,404
Uttarakhand	925.3	0.00186	508	102	866	174
West Bengal	929.7	0.00139	17,214	9,863	22,202	12,721
Total			82,987	51,051	101,900	57,520

2. SDG 5: Gender Equality

t_{HH} baseline : Average time saving associated with cooking time and fuel collection in project = 0

3. SDG-7: Affordable clean energy

AACS_{HH,baseline} : Access to affordable and clean energy (Number of operating Induction units under baseline) = 0

4. SDG-8: Decent Work

The SDG impact is calculated as below:

QE IG_{Baseline} = Total number of jobs created (Number of person (male or female) hired under baseline) = 0

Findings

CAR#02 was raised and resolved.

Conclusion

The verification team verified that

- a) A complete set of data for the monitoring period was available and the verification of each monitoring parameter is elaborated under Section E.6.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /5/ of final Monitoring Report /34/.
- b) The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section E.6.4.2 of this report.
- c) The calculations of baseline emissions as presented in the corresponding ER calculations sheet /5/ of final Monitoring Report /34/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of VPA-DD/2/, registered PoA-DD /1/ and the applied methodology/06/.
- d) All assumptions used in the emission calculations were found appropriate and therefore justified
- e) Appropriate emission factors, IPCC default factors/26/ and other reference values have been correctly applied. This has also been elaborated under Section E.6.4.1 of this report.

f) No standardized baseline was prescribed in the registered PoA-DD/1/.

E.5.7.2. Calculation of project value or estimation of project situation of each SDG Impact

Means of verification	1. SDG 13
	The project emissions are calculated using the following equation (project electricity use):
	$PE_y = \sum_d EG_{p,d,y} \times EF_{el,y} \times (1 + TDL_{j,y})$
	Where:
	PE _y Project emissions in year y (tCO ₂)
	EG _{p,d,y} The amount of energy used in the project scenario by device <i>d</i> in year y (MWh)
	EF _{el,y} The emissions factor of the electricity system (tCO ₂ e/MWh)
	TDL _{j,y} Average technical transmission and distribution losses for providing electricity to source <i>j</i> in year <i>yk</i>
	2. SDG 5: Gender Equality:
	t_{HH project} : Average time saving associated with cooking time and fuel collection in project = 1.10
	3. SDG 7: Affordable and Clean Energy
	AACS _{Project} : Access to affordable and clean energy (Number of households with operating Induction units under Project)
	The verified values for SDG 7 for the VPA are:

States	EG _{p,d,y}	EF _{el,y}	TDL _{j,y}	Total Sales-2022	Total Sales-2023	PE _y - 2022	PE _y - 2023
Bihar	0.34	0.95	20%	5,149	5,234	1,975	2,008
Chhattisgarh	0.54	0.95	20%	5,845	2,269	3,567	1,324
Jharkhand	0.55	0.95	20%	10,568	4,693	6,597	2,930
Karnataka	0.37	0.95	20%	2,736	1,579	1,153	665
Kerala	0.20	0.95	20%	1,013	2,032	223	448
Madhya Pradesh	0.34	0.95	20%	1,965	1,176	746	446
Maharashtra	0.39	0.95	20%	1,037	581	459	257
Odisha	0.51	0.95	20%	10,301	5,359	5,946	3,093
Rajasthan	0.38	0.95	20%	973	592	412	251
Tamil Nadu	0.29	0.95	20%	10,056	10,857	3,347	3,613
Uttar Pradesh	0.51	0.95	20%	15,622	6,814	9,053	3,949
Uttarakhand	0.57	0.95	20%	508	102	329	66
West Bengal	0.43	0.95	20%	17,214	9,863	8,429	4,829
Total				82,988	51,051	42,236	23,879

VPA Number	Year 2022	Year 2023
VPA01	82,657	50,868

4. SDG 8: Decent Work and Economic Growth

QE IGProject = Total number of jobs created (Number of person (male and female) hired under Project)

VPA Number	Year 2022	Year 2023
VPA01	Male: 91 Female: 12 Total: 103	Male: 91 Female: 12 Total: 103

Findings	No findings were raised.
Conclusion	No project emissions are required to be calculated.

E.5.7.3. Calculation of leakage

Means of verification	The PoA-DD/1/, VPA-DD/2/ and applied monitoring methodology/06/ For the current monitoring period follows the requirements of Section 3.11 of RECH V4.0 i.e., Option 1: Apply a discount value of 0.95 to the emission reductions to approximate leakage emissions, or Option 2: Evaluate leakage following the procedure described there in RECH V4.0 The onsite visit conducted, and project design also did not reveal any potential source to be considered in this regard.																																													
	<table border="1"> <thead> <tr> <th>States</th> <th>LE_y - 2022</th> <th>LE_y - 2023</th> </tr> </thead> <tbody> <tr><td>Bihar</td><td>268</td><td>272</td></tr> <tr><td>Chhattisgarh</td><td>340</td><td>126</td></tr> <tr><td>Jharkhand</td><td>796</td><td>354</td></tr> <tr><td>Karnataka</td><td>113</td><td>65</td></tr> <tr><td>Kerala</td><td>24</td><td>48</td></tr> <tr><td>Madhya Pradesh</td><td>90</td><td>54</td></tr> <tr><td>Maharashtra</td><td>52</td><td>29</td></tr> <tr><td>Odisha</td><td>659</td><td>343</td></tr> <tr><td>Rajasthan</td><td>52</td><td>32</td></tr> <tr><td>Tamil Nadu</td><td>364</td><td>393</td></tr> <tr><td>Uttar Pradesh</td><td>1,193</td><td>520</td></tr> <tr><td>Uttarakhand</td><td>44</td><td>9</td></tr> <tr><td>West Bengal</td><td>1,110</td><td>636</td></tr> <tr><td>Total</td><td>5,106</td><td>2,882</td></tr> </tbody> </table>	States	LE _y - 2022	LE _y - 2023	Bihar	268	272	Chhattisgarh	340	126	Jharkhand	796	354	Karnataka	113	65	Kerala	24	48	Madhya Pradesh	90	54	Maharashtra	52	29	Odisha	659	343	Rajasthan	52	32	Tamil Nadu	364	393	Uttar Pradesh	1,193	520	Uttarakhand	44	9	West Bengal	1,110	636	Total	5,106	2,882
States	LE _y - 2022	LE _y - 2023																																												
Bihar	268	272																																												
Chhattisgarh	340	126																																												
Jharkhand	796	354																																												
Karnataka	113	65																																												
Kerala	24	48																																												
Madhya Pradesh	90	54																																												
Maharashtra	52	29																																												
Odisha	659	343																																												
Rajasthan	52	32																																												
Tamil Nadu	364	393																																												
Uttar Pradesh	1,193	520																																												
Uttarakhand	44	9																																												
West Bengal	1,110	636																																												
Total	5,106	2,882																																												
Findings	No findings were raised.																																													
Conclusion	Leakage is considered as 0.95 which is in accordance with the option 1 mentioned the applied methodology Metered & Measured Energy Cooking Devices (version 1.2)/06/.																																													

E.5.7.4. Calculation of net benefits or direct calculation for each SDG Impact

For Induction

Means of verification	SDGs Targeted	SDG Impact	Baseline estimate	Project estimate	Net benefit
	13	Climate Action (tCO ₂ e)	Year 2022 101,990 Year 2023 57,520	Year 2022 47,340 Year 2023 26,761	Year 2023 54,554 Year 2023 30,756
	5	Gender Equality	Year 2022 0 Year 2023 0	Year 2022 1.10 Year 2023 1.10	Year 2023 1.10 Year 2023 1.10
	7	Affordable and clean energy	Year 2022 0 Year 2023 0	Year 2022 82,657 Year 2023 50,868	Year 2023 82,657 Year 2023 50,868
	8	Decent Work and economic growth	Year 2022 0 Year 2023	Year 2022 20 Year 2023 20	Year 2023 Total 103 (Male:91, female:12) Year 2023 Total 103 (Male:91, female:12)
The calculation methods applied for all the SDG impacts were checked with PoA-DD/1/ and VPA-DD/2/. The verification team confirms that the stated figures were checked and found acceptable.					
Findings	CAR#01 was raised and resolved.				
Conclusion	<p>The verification team confirms that:</p> <ul style="list-style-type: none"> a) The complete data was available and is duly reported. b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.5.4 and section E.6.4 of this report). c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed. d) Appropriate emission factors, IPCC default factors/26/ and other reference values were correctly applied. 				

E.6. Comparison of actual SDG Impacts with estimates in approved PDD

Means of verification	From Section E.5 of the Monitoring Report, it is apparent that estimated values were off while the project monitored its progress.			
	SDGs Targeted	SDG Impact	Values estimated in ex ante calculation of approved PoA-DD for this monitoring period	Actual achieved values during this monitoring period

	13	Climate Action	Year 2022: 232,717 tCO ₂ e VERs Year 2023: 77,002 tCO ₂ e VERs	Year 2022: 54,554 tCO ₂ e VERs Year 2023: 30,756 tCO ₂ e VERs
	5	Gender Equality	Year 2022: 1.3 Year 2023: 1.3	Year 2022: 1.1 Year 2023: 1.1
	7	Affordable and clean energy	Year 2022: 82,988 Year 2023: 52,694	Year 2022: 82,657 Year 2023: 50,868
	8	Decent Work and Economic Growth	Year 2022: 20 Year 2023: 20	Year 2022: 103 (Male:91, Female:12) Year 2023: 103 (Male:91, Female:12)
<p>The actual SDG targets against the anticipated values in PoA-DD/01/ and VPA-DD/02/ is lower for all the SDGs except SDG 8 as tabulated above. The primary reason being in the PoA-DD and VPA-DD sales for the respective technology are much lower than expected in the VPA-DD. Thus, the achieved SDG targets are much lower than anticipated.</p>				
Findings	No findings were raised.			
Conclusion	The actual emission reductions achieved in the current monitoring period for the VPA are lower than the emission reductions as well as for other SDG targets stated in the VPA-DD/2/. Therefore, it has been accepted by the verification team.			

E.6.1. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD.

Means of verification	The Monitoring Report /34/ and corresponding ER calculations sheet /05/, show that the actual emission reductions achieved for project stove during this monitoring period are less than the estimate provided in VPA-DD/2/. However, increase in the number of SDG 8 is due to the need of more on ground officers in various fields like sales, marketing, monitoring etc. which is found to be appropriate.
Findings	No findings were raised.
Conclusion	No justification was sought from the PD because the achievement of emission reductions were lower than what had been estimated.

E.7. Safeguarding reporting

Principles	Mitigation Measures added to the Monitoring Plan	Assessment/Observation
Principle 6.1. Labour Rights		
The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions	The CME had made sure that all employment complies with regional labour laws and regulations. The VPA does not entail any forced labour. All employees are confirmed to be minimum 18 years of age. The information is found confirmed and recorded in the monitoring report.	As verified by the VVB through the employment records/25/ and contracts no employee was found to be 18 years of age which is in line with national labour laws

E.8. Stakeholder Inputs and Legal Disputes

Means of verification	<p>Since there were no negative comments reported in the Grievance mechanism for the current period, as confirmed from the logbooks and interviews of the end users, this section is not applicable.</p> <p>No Legal disputes have been indicated by the CME and PO during the interviews. CME has added declaration in the monitoring report indicating that no legal contest has arisen during this monitoring period. The stakeholder mitigations that were agreed to be monitored include aftersales mechanism to ensure customer complaints are registered and addressed continuously. Interviews of end-users were conducted by the VVB representatives, and all end-users confirmed that they were aware of the complaints mechanism and had contact information of the PO representatives in case they have any complaints regarding the CEPs. The measures to address such complaints may include repair or replacement of CEPs, depending on the degree of damage.</p> <p>The Continuous input / Grievance Expression process book is available at the office of Local Partner organization for those who don't have the access to electronic media for expressing their concerns and the end users can also register their complaint / grievance through the email pno@asirvad.in, customer.care@iiflsamasta.com, grievance.officer@sarala.co.in, info@satincreditcare.com, customer.service@teamvedika.com, info@cedarretail.in.</p> <p>During the current monitoring period, 15 were repaired. These have been confirmed by the ER Sheets/05/ of the respective VPA.</p> <p>A step wise approach has been adopted by the CME for aftersales mechanism to resolve customer complaints. The steps involved are: Step 1: Complain Registration Step 2: Logging complaint Step 3: Collection of products for repair Step 4: Resolution of the complaint Step 5: Feedback (optional)</p> <p>VVB confirms that all the technical failure and maintenance protocol has been appropriately listed by the CME in the MR.</p>
Findings	CAR#03 was raised and resolved.
Conclusion	Since there were no negative comments reported in the Grievance mechanism for the current Period. This section is not applicable.

SECTION F. Internal quality control

The draft verification report that is prepared by the verification team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS4GG requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team.

During the technical review process, additional findings may be identified, or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to Gold Standard. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Private Limited.

SECTION G. Verification opinion

Earthood Services Private Limited (Earthood), contracted by, has performed the independent verification of the emission reductions for the GS Project GS12067 (VPA 01) in the host country "India" for the monitoring period 04/04/2022 to 31/03/2023 (both dates inclusive), as reported in the Monitoring Report, Version 3.0 dated 06/09/2023/34/. The 'MicroEnergy Credits' is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. Earthood commenced the verification against the baseline and monitoring methodology "Metered & Measured Energy Cooking Devices (version 1.2)."/06/, the monitoring plan contained in the VPA-DDs and Monitoring Report Version 4.0 dated 09/10/2023/34/.

VVB's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The verification team confirms that:

- The PoA was found completely implemented as per the description given in the registered VPA-DD.
- The actual operation conforms to the description in the registered PoA – DD/01/ and VPA- DD/02/.

SECTION H. Certification statement

ESPL's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that the reported GHG emission reductions are fairly stated.

In our opinion, the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report (final) Version 4.0 dated 09/10/2023/34/. ESPL, based on outcome of verification activities, certifies in writing that, during the monitoring period 04/04/2022 to 31/03/2023 (inclusive of both the dates) for the VPA 01 (inclusive both dates) the registered GS PoA – GS12066 "MicroEnergy Credits – Microfinance for Clean Cooking Product Lines – India" achieved the verified amount of 85,310 tCO₂e for VPA 01 in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PoA.

The verified amount of emission reductions is stated below as per implemented VPA and as per commitment period:

Verified and certified emission reductions as per monitoring period:

Monitoring period	VPA 01
From 04/04/2022 till 31/12/2022	54,554 tCO _{2e} VERs
From 01/01/2023 till 31/03/2023	30,756 tCO _{2e} VERs
Total	85,310 tCO_{2e} VERs

Appendix 1. Abbreviations

Abbreviations	Full texts
General	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CME	Coordinating and Managing Entity
CL	Clarification Request
CO ₂	Carbon dioxide
CP	Crediting Period
DR	Desk Review
EB	Executive Board
EI	External Individual
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GSC/GSP	Global Stakeholder Consultation Process
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
KP	Kyoto Protocol
LSC	Local Stakeholder Consultation Process
MoC	Modalities of Communication
MoV	Means of Verification
MP	Monitoring Plan
ODA	Official Development Assistance
PA	Project Activity
PCP	Project Cycle Procedure
PD	Project Developer
PDD	Project Design Document
PE	Project Emission
PoA	Programme of Activities
PoA DD	Programme of Activities Design Document
PS	Project Standard
RCP	Renewal of Crediting Period
RFR	Request for Registration
tCO _{2e}	tonnes of Carbon di Oxide equivalent
TPH	Tonnes Per Hour
TR	Technical Reviewer
UNFCCC	United Nations Framework Convention on Climate Change

V	Version
VPA	Verified Project Activity
VVB	Validation and Verification Body
VVS	Validation and Verification Standard
Project Specific	
ICS	Induction Cookstove
GS4GG	Gold Standard for Global Goals
LSC	Local Stakeholder Consultation
MoV	Means of Verification
SDG	Sustainable Development Goals

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Sushant Vashisht		
Education	M.Sc. Environmental science and Technology		
Experience	1+ years		
Field	Environment science and technology		
Approved Roles			
Team Leader	YES (VM)		
Validator	YES (VM)		
Verifier	YES (VM)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (VM 1.2, 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	23/06/2023
Approved by	Deepika Mahala (Technical Manager)	Date	23/06/2023

Competence Statement			
Name	Deepika Mahala		
Country	India		
Education	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateswar College, DU		
Experience	6 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	ACM0002, AMS.I.D., AMS.I.A, AMS.III.AV, AMS.II.G, AMS-II.C		
Local expert	YES (India, Bangladesh)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2 & TA 3.1)		
Reviewed by	Shifali Guleria (QM)	Date	28/04/2022
Approved by	Kaviraj Singh (MD)	Date	28/04/2022

Competence Statement			
Name	Charu Patwal		
Education	M.Sc. Environmental Science		
Experience	2+ years		
Field	Research & Sustainability		
Approved Roles			
Team Leader	YES (VM)		
Validator	YES (VM)		
Verifier	YES (VM)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	Date	05/05/2023
Approved by	Deepika Mahala (Technical Manager)	Date	05/05/2023

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	9 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., AMS.III.BL, ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Shifali Guleria	Date	26/04/2022
Approved by	Deepika Mahala	Date	26/04/2022

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	MEC	PoA-DD	Version 4, 30/08/2023	CME
2.	MEC	VPA-DD GS12067 (VPA 01)	Ver.4, 09/10/2023	CME
3.	ESPL	Validation Report for inclusion of VPA	Version 4, dated 26/10/2022	Others
4.	GS4GG	Monitoring report template Guide	Version 1.1, published on 14/10/2020	GS4GG
5.	MEC	ER Calculation sheet_VPA 01	Pertaining to latest MR	CME
6.	GS4GG	Metered & Measured Energy Cooking Devices	Version 1.2	Others
7.	MEC	fNRB calculation sheet	-	CME
8.	CDM	CDM webpage of the PoA: https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/B46TH0V2GLIZK1UPWJ3SMNA8QRX7FY/view	Last accessed on 08/09/2023	Others
9.	The Gold Standard Foundation	GS webpage of the PoA: https://registry.goldstandard.org/projects/details/3501	Last accessed on 08/09/2023	Others
10.	MEC	Carbon Title transfer document	-	CME
11.	MEC	Spot check user records and the pictures of the induction stoves	-	CME
12.	MEC	Training records	-	CME
13.	MEC	Monitoring survey reports for parameters monitoring for Induction Stove	-	CME
14.	MEC	Questionnaire used during the survey	-	CME
15.	MEC	Technical specifications of Induction Stove (Various Models)	-	CME

16.	MEC	Original copies of sales receipts / invoices/ warranty cards	-	CME
17.	UNFCCC	CDM PS for PoA	Version 3.0	Others
18.	UNFCCC	CDM VVS for PoA	Version 3.0	Others
19.	UNFCCC	Standard: sampling and surveys for CDM project activities and programme of activities	Version 9.0	Others
20.	UNFCCC	Guidelines: sampling and surveys for CDM project activities and programme of activities	Version 4.0	Others
21.	GS4GG	Principle and requirements	Version 1.2	Others
22.	GS4GG	PoA Requirements	Version 2.1	Others
23.	GS4GG	CSA Requirements	Version 1.2	Others
24.	GS4GG	GHG emission reduction and sequestration product requirements	Version 2.1	Others
25.	MEC	Employment Records	-	CME
26.	IPCC	IPCC Guidelines for National Greenhouse Gas Inventories 2.1 (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf)	-	Others
27.	GS4GG	Form: GS-MR-FORM	Version 1.1, Dated 14/10/2020	Others
28.	TASC	Training photos	-	CME
28.1	TASC	Training records	-	TASC
29.	The Gold Standard Foundation	REQUIREMENTS AND GUIDELINES USAGE RATE MONITORING,	-	CME
30.	IPCC	GWP: IPCC AR4 https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf	-	Others
31.	CEEW	Roadmap for Access to clean cooking Energy in India published by Council on Energy, Environment and Water (CEEW), https://www.ceew.in/sites/default/files/CEEW-Roadmap-for-Access-to-Clean-Cooking-Energy-in-India-Report-31Oct19-min.pdf	-	Others
32.	MEC	Grievance Logbook	-	Others
33.	MEC	MEC and PO's agreement	-	CME
34.	MEC	Monitoring Report (final)	Version 4.0, dated 09/10/2023	CME
35.	MEC	Quarterly and annual monitoring survey forms	Filled	CME

36.	MEC	Data Logger Data	-	CME
37.	MEC	Credit tracker platform screenshots/ online – output file	-	CME
38.	MEC	Credit Tracker Platform Screenshots	-	CME
39.	MEC	Tracker output file	-	CME
40.	UNFCCC	TOOL 05 “Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation”	Version 3.0	Others
41.	UNFCCC	Tool 30: Calculation of the fraction of non-renewable biomass	Version 4.0	Others
42.	UNFCCC	Community Services Activity Requirements	Version 1.2	Others
43.	ESPL	On-Site audit records	-	Others
44.	MEC	Baseline survey	-	CME
45.	MEC	Monitoring report initial	Version 1, 14/07/2023	CME
46.	UNFCCC	Harmonised grid emission factor dataset provided by UNFCCC	-	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	00	Section no.		Date : DD/MM/YYYY
Description of FAR				
Project participant response				Date : DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				Date: DD/MM/YYYY

Table 2. CL from this verification

CL ID	01	Section no.	KPI	Date : 18/07/2023
Description of CL				
<p>It has been observed in the Key Project Information & section A.3 of the MR, that there are two Methodologies are reflected i.e., Metered & Measured Energy Cooking Devices v1.2' & TPDDTEC version 4.0. However, in the PoA-DD & VPA-DD there is only one methodology is mentioned i.e., “Metered & Measured Energy Cooking Devices v1.2’. PP shall Address the inconsistencies found in MR.</p>				

Project participant response	Date : 18/07/2023
Considering it as a clerical error, CME has now removed “TPDDTEC version 4.0” from key project information and section A.3 of MR. The MR is made consistent with POA-DD & VPA-DD. The revised MR is shared with VVB	
Documentation provided by project participant	
Revised MR Ver 2.0	
VVB assessment	Date: 19/07/2023
VVB has confirmed that the revisions have been made by the CME in the revised Monitoring report. “TPDDTEC version 4.0” has been removed. Hence, the CL#01 is closed.	

CL ID	02	Section no.	E.5.3	Date : 18/07/2023
Description of CL				
Under section D.1, “Data and parameters fixed ex ante or at renewal of crediting period”, few monitored Parameters are mentioned. PP is requested to clarify how the monitored parameters are being reflected under ex-ante parameters.				
Project participant response				Date : 18/07/2023
Considering it’s a clerical error. CME has now revised the section & has added the parameters which is in line with VPA-DD & methodology MECD version 1.2. The revised MR is shared with VVB				
Documentation provided by project participant				
Revised MR Ver 2.0				
VVB assessment				Date: 19/07/2023
Monitoring report has been revised by the CME and the section D.1 of the MR is found to be in line with the applied methodology. The monitored parameters have been removed from the ex-ante parameters. Hence the Finding is closed.				

Table 3. CAR from this verification

CAR ID	01	Section no.	KPI	Date : 18/07/2023
Description of CAR				
<ol style="list-style-type: none"> 1. With respect to SDG indicator 8.5.1 “Average hourly earnings of female and male employees, by occupation, age and persons with disabilities”. PP is requested to add Number of Jobs separately gender wise (Male & female employes) throughout the MR. 2. Under section A.2 “Location of Project”, Only the states have been reflected. PP is requested to add the geo coordinates of each state. 				
Project participant response				Date : 18/07/2023
<ol style="list-style-type: none"> 1. CME has provided the no of females & males for SDG indicator 8.5.1 & wherever required in the MR. 2. CME has now added the “geo coordinates of each state” as desired by VVB in section A.2 				
Documentation provided by project participant				
Employment record Revised MR Ver 2.0				
VVB assessment				Date: 19/07/2023
<ol style="list-style-type: none"> 1. VVB confirms that the employments records have been provided by the CME and CME has reflected the total employments separately (Males & females) which is found to be in line with SDG indicator. The revised MR is found to be appropriate. 2. Geo coordinates of each state is clearly reflected in the revised MR. The VVB confirms that the geo coordinates reflected in the A.2 section of the MR is appropriate and has cross checked with the help of google earth. 				
The CAR#01 is closed.				

CL ID	02	Section no.	E.5	Date : 18/07/2023
Description of CL				
Under section B.1 “Description of implemented project”, Table: Specification, Efficiency & lifetime of the few models are not reflected. PP is requested to add appropriate information.				
Project participant response				Date : 18/07/2023
CME has revised this section based on the tech specs. Revised MR has been provided				
Documentation provided by project participant				
Revised MR Ver 2.0				
VVB assessment				Date: 19/07/2023
CME has revised the MR with appropriate revisions. Information regarding the specification, efficiency & Lifetime of each technology has been revised in the section B.1 of the MR. Hence, the CAR#02 is closed.				

CAR ID	01	Section no.	E.5	Date	18/07/2023	
Description of CAR						
Following observations has been made in section D of the MR:						
<ol style="list-style-type: none"> 1. The parameter “Percentage of fuel_i,” is found to be inconsistent with the VPA-DD. PP is requested to make it in line with the VPA-DD. 2. The Parameter “fNRB_{i,y}”, The Values mentioned for the states: Bihar, Karnataka, Rajasthan are found to be inconsistent with the VPA-DD. PP is requested to review & make it in line with the VPA-DD. 3. Under section D.4” Implementation of sampling plan”, the formula applied to determine the Sample size is not in line with the VPA-DD, PP is requested to make it in line with the VPA-DD. 						
Project participant response					Date	18/07/2023
Based on VVB’s observations, CME has made necessary corrections in section D of MR. The revised MR is shared.						
Documentation provided by project participant						
Revised MR Ver 2.0						
VVB assessment					Date:	19/07/2023
<ol style="list-style-type: none"> 1. CME has revised the MR and the value of the parameter “Percentage of fuel_i” has been revised and found to be inline with the ER sheet & VPA-DD. 2. CME has revised the MR and the value of the parameter “fNRB_{i,y}” has been revised and found to be in line with the fNRB calculation sheet. 3. The section D.4 of the MR has been revised and appropriate changes have been made. 						
The CAR#03 has been closed.						

CAR ID	02	Section no.	E.5.7.1	Date	18/07/2023	
Description of CAR						
Under section E.1 “Calculation of baseline value or estimation of baseline situation of each SDG Impact”, The Value for BE _y & PE _y is wrongly calculated PP is requested to review the calculation & revise the MR.						
Project participant response					Date	18/07/2023
CME has corrected the calculation of BE _y and PE _y under section E.1 and E.2 of the MR.						
Documentation provided by project participant						
Revised MR Ver 2.0						
VVB assessment					Date:	19/07/2023
CME has revised the MR. the calculated values for BE _y & PE _y under section E.1 & E.2 of the MR has been calculated appropriately and hence found to be correct in the revised MR.						

CAR ID	03	Section no.	E.8	Date	18/07/2023	
Description of CAR						
Under section G” Stakeholder Inputs and Legal Disputes”, It is mentioned as Complaints, or any other concerns can be stated and will be filed directly at the head office. However, in the VPA-DD it is stated that “Continuous input / Grievance Expression process book is available at the office at partner local offices”, PP is requested to clarify.						
Project participant response					Date	18/07/2023
CME has corrected the MR and made it in line with the VPA-DD. The grievance book is available at offices of partner local office only.						
Documentation provided by project participant						
Revised MR Ver 2.0						
VVB assessment					Date:	19/07/2023
CME has revised the section G of the MR which is now found to be inline the VPA-DD. Additionally during the Site visit held on 07/06/2023. Audit team confirmed that the grievance book was available at the local office. Hence, the finding is closed.						

Table 4. FAR from this verification

FAR ID	XX	Section No.		Date	DD/MM/YYYY	
Description of FAR						
Project participant response					Date	DD/MM/YYYY

Documentation provided by project participant	
VVB assessment	Date: DD/MM/YYYY

e.g., there is no FAR from this verification.