



Gold Standard[®]
for the Global Goals

TEMPLATE

MONITORING REPORT

PUBLICATION DATE 14.10.2020

VERSION v. 1.1

RELATED SUPPORT - TEMPLATE GUIDE Monitoring Report v. 1.1

This document contains the following Sections

Key Project Information

SECTION A - Description of project

SECTION B- Implementation of project

SECTION C- Description of monitoring system applied by the project

SECTION D- Data and parameters

SECTION E- Calculation of SDG Impacts

SECTION F- Safeguards Reporting

SECTION G- Stakeholder inputs and legal disputes

KEY PROJECT INFORMATION

Programme of Activity Information – (delete below table if N/A)

GS ID of Programme	GS12066
Title of Programme	MicroEnergy Credits - Microfinance for Clean Cooking Product Lines – India
Version of POA-DD applicable to this monitoring report	4
Name and GS ID of fully Validated CPA/VPAs (i.e. non compliance check)	NA

Key Project Information

GS ID (s) of Project (s)	GS12067
Title of the project (s) covered by monitoring report	GS12066-MicroEnergy Credits – Microfinance for Clean Cooking Product Lines - India - Clean Cooking Project -VPA01
Version number of the PDD/VPA-DD (s) applicable to this monitoring report	4
Version number of the monitoring report	4.0
Completion date of the monitoring report	09/10/2023
Date of project design certification	24/08/2023
Date of Last Annual Report	NA
Monitoring period number	1st
Duration of this monitoring period	04/04/2022 to 31/03/2023 (Inclusive of both the days)
Project Representative	Micro Energy Credits Corporation Private Limited
Host Country	India
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

Methodology (ies) applied and version number	Methodology for Metered & Measured Energy Cooking Devices Version 1.2
Product Requirements applied	<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A

**Table 1 - Sustainable Development Contributions Achieved
Year:2022**

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
13 Climate Action (mandatory)	Total GHG emission reductions per year (tCO ₂ e)	54,554	tCO ₂ e
5 Gender Equality	Time saved due to project implementation (time that the women were spending in collecting firewood and cooking)	1.10	hours/household/ week
7 Affordable and Clean Energy	Number of households with operational induction cookstoves	82,657	units
8 Decent Work and Economic Growth	Total number of jobs created	Female - 12 Male- 91 Total- 103	jobs

Year:2023

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
13 Climate Action (mandatory)	Total GHG emission reductions per year (tCO ₂ e)	30,756	tCO ₂ e
5 Gender Equality	Time saved due to project implementation (time that the women were spending in collecting firewood and cooking)	1.10	hours/household/ week
7 Affordable and Clean Energy	Number of households with operational induction cookstoves	50,868	units

8 Decent Work and Economic Growth Total number of jobs created Female - 12
 Male- 91 jobs
 Total- 103

Table 2 – Product Vintages

		Amount Achieved
Start Dates	End Dates	VERs
04/04/2022	31/12/2022	54,554
01/01/2023	31/03/2023	30,756
	TOTAL	85,310

SECTION A. DESCRIPTION OF PROJECT

A.1. General description of project

>>

The purpose of the VPA is to reduce greenhouse gas (GHG) emissions from the burning of non-renewable biomass (firewood) and fossil fuel (LPG) for cooking and other domestic needs and contribute towards sustainable development in project regions. The VPA will distribute induction cookstoves to domestic households (beneficiaries) in peri urban areas of India. This is a voluntary action by the CME and will be implemented across various states in India where there are no laws, policies, or mandatory requirements for households to purchase induction cookstove for their domestic use. The VPA will apply the Gold Standard approved methodology *Gold Standard Methodology for Metered & Measured Energy Cooking Devices (version 1.2)*.

The VPA is implemented by Satin Credit care Network Limited (Satin), Asirvad Microfinance Limited (Asirvad), Sarala Women Welfare Society (Sarala), Vedika Credit Capital Limited (Vedika), Samasta Microfinance Limited (Samasta) and Evangelical Social Action Forum (ESAF). MEC collaborates with various local partners on the ground to assist in the different activities of this induction cookstove project.

The VPA involves dissemination of induction cookstoves that provide clean energy for cooking. The cookstoves distributed under the VPA replaces inefficient traditional cookstoves and LPG stove thereby reducing the amount of fuel used for cooking in the baseline by households and thus reducing GHG emissions corresponding to the fuel saving by the project activity.

Under this VPA, MEC works with project partners to develop a successful and diversified clean energy-lending program. The clean energy program addresses typical barriers for low-income clients including education, price, finance, and supply and aftersales service. MEC trains project partners to implement the clean energy lending program, as well as a robust and transparent carbon credit monitoring and tracking system to quantify and record the volume of carbon emission reductions created through the clean energy program. The carbon finance is used to expand and sustain the clean energy program through:

1. Client education and marketing
2. Internal training and capacity building
4. Aftersales service and maintenance
5. Lowering the interest or principal cost to the client

The monitoring report consists of emission reductions from VPA01(GS ID 12067) under the PoA GSID 12066 as mentioned above. The goal of the VPA is to use carbon finance to enable implementation of Induction stoves in India.

A.2. Location of project

>>

- a. Host Party (ies) - India
- b. Region/State/Province – Bihar (BH), Chhattisgarh (CG), Jharkhand (JK), Karnataka (KA), Kerala (KL), Madhya Pradesh (MP), Maharashtra (MH), Odisha (OD), Rajasthan (RJ), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK) and West Bengal (WB) states for induction stoves and several regions within these states.
- c. City/Town/Community – Several Cities/Towns are included
- d. Physical/Geographic location – The exact location (address) of each CEP is captured in the Credit Tracker Platform and can be verified.

S.NO	State	Geocoordinates	
		Latitude	Longitude
1.	Bihar	25° 5' 45.8664" N	85° 18' 47.2284" E
2.	Chhattisgarh	21° 17' 42.4752" N	81° 49' 41.6352" E
3.	Jharkhand	23° 20' 39.5340" N	85° 17' 45.6468" E
4.	Karnataka	15° 19' 2.1972" N	75° 42' 50.0040" E
5.	Kerala	10° 51' 1.8576" N	76° 16' 15.8880" E
6.	Madhya Pradesh	23° 28' 23.9664" N	77° 56' 52.7928" E
7.	Maharashtra	19° 39' 47.8080" N	75° 18' 1.0548" E
8.	Odisha	20° 56' 27.3120" N	84° 48' 12.4812" E

9.	Rajasthan	27° 23' 28.5972" N	73° 25' 57.4212" E
10.	Tamil Nadu	11° 7' 37.6428" N	78° 39' 24.8076" E
11.	Uttar Pradesh	28° 12' 27.3924" N	79° 49' 35.9760" E
12.	Uttarakhand	30° 18' 59.3856" N	78° 1' 55.8768" E
13.	West Bengal	22° 58' 43.0464" N	87° 44' 52.0908" E

The location of each clean energy installation as per a GPS location or verified address has been recorded in Micro Energy Credit’s Credit Tracker Platform, which has been designed specifically for accelerating microfinance access to clean and efficient energy.

The Credit Tracker Platform is used to collect and store the information related to the unique identification number, location, installation date, and usage status of each clean energy product in the VPAs, making it easy to identify, locate and verify any or all of the installations that pertain to the VPA. The MEC Credit Tracker Platform is a hosted internet service, limiting the risk of loss of data.



Figure 1 The physical/geographical boundary of the VPA-The Republic of India.

A.3. Reference of applied methodology

>>

GS methodology: Methodology for Metered & Measured Energy Cooking Devices Version 1.2¹.

A.4. Crediting period of project

>>

¹ https://globalgoals.goldstandard.org/standards/431_V1.2_EE_ICs_Methodology-for-Metered-and-Measured-Energy-Cooking-Devices.pdf

VPA Reference Number	Crediting Start Date	Crediting End Date (CP-1)	GS4GG Crediting End Date	GS4GG Eligible Crediting End Date
GS12067	04/04/2022	03/04/2027	03/04/2027	03/04/2037

SECTION B. IMPLEMENTATION OF PROJECT

B.1. Description of implemented project

>>

a. Purpose of the specific-case VPA(s) and the measures taken for GHG emission reductions or net GHG removals by sinks

Purpose: Under the VPA, Micro Energy Credits works with PO – Satin Credit care Network Limited (Satin), Asirvad Microfinance Limited (Asirvad), Sarala Women Welfare Society (Sarala), Vedika Credit Capital Limited (Vedika), Samasta Microfinance Limited (Samasta) and Evangelical Social Action Forum (ESAF) to develop a successful and diversified clean energy lending program. The clean energy program addresses typical barriers for low income clients including education, price, finance, and supply and aftersales service. MicroEnergy Credits trains the PO’s to implement the clean energy lending program, as well as a robust and transparent carbon credit monitoring and tracking system to quantify and record the volume of carbon emission reductions created through the clean energy program.

Measures taken: The VPA involves marketing, distributing, and financing induction stoves for households and microentrepreneurs /POs in Bihar (BH), Chhattisgarh (CG), Karnataka (KA), Kerala (KL), Maharashtra (MH), Madhya Pradesh (MP), Odisha (OD), Jharkhand (JK), Rajasthan (RJ), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK) and West Bengal (WB). These products provide efficient energy for cooking.

The total number of units implemented under this VPA till date is 134,038.

Year	Sales
2022	82,987
2023	51,051
Total	134,038

b. Description of the technology employed and installed equipment and/or infrastructure, including information requested by the eligibility criteria.

The efficient cook stove relies on electricity-based induction principle to achieve a high thermal efficiency, namely improved heating, and electrical insulation. Electricity based induction cookstove allows clean cooking with better energy efficiency. The increased efficiency allows a controlled heating to occur at a higher temperature. The electrical insulation of the efficient cooking stove ensures safety from the electric shocks while cooking. The specification of inductions stoves distributed under the VPA are given in the below table. The sample model image is shown in figure 2 below.



Figure 2: Induction stove

Table 2: Technical specification

S.no	Model Name	Power rating, watt	Efficiency %	Average Operational Lifetime, hours ²
1	Prestige Induction 1200W	1200	89.35%	2300 (~2 years)
2	dight Induction1400W	1400	90%	2400 (~2 years)
3	Maharaja Induction 1800W	1800	91%	4800 (~5 years)
4	Pigeon Induction 1800W	1800	91%	4800 (~5 years)
5	Prestige Induction 1600 W	1600	90.21%	2500 (~2 years)
6	Crompton Induction 1500 W	1500	90%	4700 (~5 years)

c. Relevant dates for the VPA

1. Construction/Implementation date – The induction stoves were implemented from 04/04/2022 to 30/03/2023.
2. Commissioning – 134,038 induction stoves are distributed under this VPA. The exact commissioning/installation dates for all the CEP’s are mentioned in the Emission Reduction Calculation sheet for this VPA.

² Average usage is considered to be 3 hours per day.

3. Continued operation periods – All of the functional products were continuously operational during the course of this monitoring period. Non-functional products are discounted in emission reduction calculation.

d. Total GHG emission reductions achieved in this monitoring period for the VPA, including information on how double counting is avoided –

The total GHG emission reductions achieved in this monitoring period for the VPA is 85,310 tCO₂e.

e. Avoiding double counting –

Each Clean Energy Product sold under the VPA has 2 unique identifier numbers - one that is attached to each household and one that is attached to each installation within that VPA to ensure no double-counting within the PoA.

The 2 unique identification numbers for CEPs sold by each product are as follows –

Partner	Unique Identification number for the households	Unique identification number for the CEP
Samasta	Customer identification number	Loan Proposal Identification Number
Sarala	User account number	Branch ID- Loan account number
Vedika	Customer identification number	Transaction identification number
Asirvad	User Identification number	Transaction identification number
Satin	Customer identification number	Transaction identification number
ESAF	User Account Number	Branch ID-Loan account number

Unique identification number for the households is defined as “User Account identification number” and Unique identification number for the CEPs is defined as “Loan Account number” in the emission reduction sheets.

Unique identification numbers match with the information displayed on each VPA Credit Tracker Platform, with a copy retained by the customer, thus identifying that each CEP with its unique identification number has been distributed under a PoA managed by the CME of this PoA.

At the time of including a new VPA, Micro Energy Credits ensured that the project activity is not part of CDM/GS/VERRA project activity or another PoA by the following

means:

- MEC signs contracts with each microfinance institution documenting that the emissions reductions in a specific project activity are included in that project and that project alone.
- The partner PO explains the concept of carbon credits to the end user. The PO signs a contract with each end user recognizing the end user's title to the emissions reductions and transferring it to the PO, which then transfers it to Micro Energy Credits via the contract signed between the PO and MEC.
- Micro Energy Credits and partner organizations (POs) consult with participating clean energy product suppliers to clarify that credits are not included in other projects and are included only in this PoA.

The MEC Credit Tracker Platform maintains data on all installations, including each CEP unique identifier number, the date of installation and the VPA/PoA with which they are associated. The platform's use of locations for each installation ensures that each clean energy product is only included in a single VPA under a single PoA. The credit tracker platform also allocates a system generated number call "sysnum" to each installation under the PoA. No two CEP installations can have the same "sysnum".

Additionally, the induction stoves are sold a part of the clean energy lending programme by PO. As part of the programme, each user is assigned with unique identification number (User Account and Loan Account Number) which can be easily tracked through PO's MIS system. Every user who has purchased the project device is provided with a loan card which also reflects the same information that can be easily cross checked.

B.1.1 Forward Action Requests

>>

N/A

B.2. Post-Design Certification changes

>>

B.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

>>

N/A

B.2.2. Corrections

>>

N/A

B.2.3. Changes to start date of crediting period

>>

N/A

B.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

>>

N/A

B.2.5. Changes to project design of approved project

>>

N/A

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

>>

Micro Energy Credit's Credit Tracker Platform is used to maintain records for the VPA. The MEC Credit Tracker Platform has been designed specifically for accelerating microfinance access to clean and efficient energy. The Credit Tracker Platform is used to collect and store the information related to the unique identification number, location, installation date, and usage status of each clean energy product (CEP) in the VPA, making it easy to identify, locate and verify all of the installations that pertain to a given VPA. The MEC Credit Tracker Platform is a hosted internet service, limiting the risk of loss of data.

Monitoring system and monitoring plan of VPAs – The Credit Tracker Platform enables Micro Energy Credits to maintain consistent data on the VPA and product installations. At the time of installation, the PO creates a Booking Record (in paper or electronic format) that captures detailed data on the installation:

- Household name
- Location of household (address and/or GPS location)
- Product type installed
- Product model installed
- Date of installation
- Unique identifier number for CEP
- Respective VPA number

The Credit Tracker Platform includes a VPA Dashboard that provides a summary on the status of each VPA, and includes the fields:

- Name and unique identifier of each VPA
- List of CEPs included in each VPA
- Name of PO implementing each VPA
- Number of CEPs installed
- Aggregate emissions reductions per year for each VPA

The VPA Monitoring Record maintains monitoring and auditing data on each installation in a VPA:

- Unique identifier number for CEP

- Date of monitoring
- Usage status at time of monitoring

The monitoring activity provides a framework for project preparation and monitoring processes that has been undertaken at the VPA level for the VPA. This schedule takes into account the key parameters that are needed during the crediting periods of the project. All required monitoring and documentation have been implemented, reported, consolidated and managed by the CME. Monitored data has been stored in a suite of monitoring databases.

Summary:

1. Each PO keeps a record of all the CEPs it installs in the MEC Credit Tracker Platform. The record includes the name, date of installation, model of CEP and location of the product. All records are screened by the CME and cross-checked with the PO records to confirm the installation record is authentic and no double counting occurs.
2. The values of the emission reduction parameters required for ex-post ER calculation are found from sampling of cookstove installations.
3. The records kept in the MEC Credit Tracker Platform relate to paper copies of title transfer agreements received from individual households.

Technical Failure and Maintenance Protocol

All POs part of the VPA have a robust aftersales mechanism in place which ensures customer complaints are registered and resolved in a timely manner. The mechanism involves various steps:

- Step 1: Complain Registration
- Step 2: Logging complaint
- Step 3: Collection of product for repair
- Step 4: Resolution of the complaint
- Step 5: Feedback (optional)

Customers register complaint either through field staff of the PO who visit the customer on weekly or biweekly manner or directly call the customer support number provided to them during sale of the product. Most preferred mode of complaint registration is through field staff.

POs have in house complain logging systems (manual/automatic). Intimation is sent to supplier/manufacturer local service team. As soon as service team receives the complaint, within 48-72 hours depending on the location of the customer household, service team will visit the households for examination of the product. In case of minor

issues, resolution happens on the spot however, if the problem is major then product is collected and taken to the nearest workshop.

Service team of the supplier/manufacturer is expected to resolve the issue within 30 days of receiving the complaint. Once the product is repaired, it is returned back to the customer. In case product is beyond repair then replacement product is provided to end user by the PO.

Total repairs done were 15 inductions across various states. It can be confirmed through credit tracker output file where the data from the partner is stored. Sample tracker screenshots and sample service request forms have been submitted.

Quality assurance

To increase the precision of the estimates during the survey, it is necessary to establish sampling mechanisms for avoiding non-sampling errors (bias) include good questionnaire design, well-tested questionnaires, possibly pilot testing the data collection. To remedy the incomplete questionnaires, additional households will be drawn randomly until the required number is met at per the sample size determined. Then, well-trained personnel will scrutinize all the questionnaires. This will be a procedure to find outliers, and then outliers may be excluded and/or replaced. If the outliers are found according to the above analysis it will be examined further to correct for possible transcription and data entry errors, but it will be omitted from the analysis if no such administrative errors exist. All monitored data such as name, date and contact information of the end-user will be archived in the electronic database tool. Hard copies of all documents will be kept at the office of CME or an alternative place nominated by CME. All the data will be used to calculate the sample size for parameters and emission reductions. All data stored to be kept for at least two years after the crediting period or the last issuance for the project activity.

Generalities

The CME along with the PO coordinated the ex-post monitoring activities in the PoA. The CME is ultimately responsible for implementing the monitoring plan, ensuring the quality of data obtained and the use of this data for emissions reduction calculations. The CME provided the VVB with a single monitoring report for verification purposes for this VPA requesting issuance together.

The actual field measurements conducted during monitoring (e.g., installation of energy meters for induction cookstove selected during sampling) was performed by CME/PO field staffs.

CME has defined the project technology "use" versus "non-use" to determine who should be considered eligible for crediting. The criteria for defining the same has been listed below:

1. User is defined as someone who uses the stove daily. The same shall be captured in the survey questionnaire.

2. To define the use and non-use of project technology, CME has included questions in the survey questionnaire such as when the stove was last used, frequency of use, how many meals are prepared in a day.
3. Physical verification of the stove is conducted to check if all the modes are working and there are no loose connections. Surveyor shall also observe physically that by switching on and off the device that it is working.
4. Users will be asked questions on use of the baseline stove, how many meals prepared, presence or absence of the baseline stove.

CME referred to usage and project survey to determine if the stove was in use or not. During sampling there may be non-response from the target population. Over-sampling by 20% may be used to avoid non-response, however, sampling may be cease once required confidence/precision is met.

Implementation

The survey for collecting the details of monitoring parameters was conducted at annually. The overall monitoring and the implementation of the sampling was coordinated by the CME and the management staff. They ensured successful monitoring of the emission reductions of the proposed project during its crediting period. Furthermore, the survey of the representative sample for the parameters was be carried out by the distributor together with the CME. The survey method that was used by CME include: (a) Hard-copy questionnaires (b) Face to face interview (c) Telephone Interview as cross check.

All efforts of sampling were conducted by qualified personnel who have undergone training as part of the programme. All the persons who carried out sampling plan required to speak the native language(s) allowing for a full understanding of any responses given by users and any questions therein. The date of all monitoring was recorded in the VPA database.

SECTION D. DATA AND PARAMETERS

D.1. Data and parameters fixed ex ante or at renewal of crediting period

>>

SDG 13

Data/parameter	$P_{b,i,j}$		
Unit	Tonnes		
Description	Amount of baseline fuel <i>i</i> used in device <i>j</i> in the baseline		
Source of data	Baseline Kitchen Performance Test (BKPT)		
Value(s) applied	S.No.	State	$P_{b,i,j}$ (tonnes/HH/year)

		Wood	LPG
1.	Bihar	1.977	0.030
2.	Chhattisgarh	1.937	0.032
3.	Jharkhand	2.007	0.029
4.	Karnataka	2.024	0.027
5.	Kerala	1.865	0.029
6.	Madhya Pradesh	1.829	0.027
7.	Maharashtra	1.832	0.029
8.	Odisha	1.852	0.028
9.	Rajasthan	1.944	0.029
10.	Tamil Nadu	1.863	0.025
11.	Uttar Pradesh	1.974	0.032
12.	Uttarakhand	1.842	0.031
13.	West Bengal	1.917	0.031

Choice of data or Measurement methods and procedures	Standard Kitchen Performance Test were performed to estimate the baseline firewood consumption values.
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.
Additional comment	In the case of programmes, the baseline fuel use value for the project cooking device type and end user type in the region or country may be applied to new VPAs included in the PoA within three years after its approval, after which it must be updated.

Data/parameter	NCV_{b,i}
Unit	Terrajoules (TJ)/tonne of fuel
Description	The net calorific value of the baseline fuel type <i>i</i>
Source of data	IPCC default data
Value(s) applied	Wood – 0.0156 TJ/tonne LPG – 0.0473 TJ/tonne
Choice of data or Measurement methods and procedures	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 – Energy, Chapter 1 – Introduction, Table 1.2 (pg 1.18 and 1.19)

Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.
Additional comment	-

Data/parameter	EF_{b,i,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Methodology and IPCC default values for wood and LPG respectively
Value(s) applied	Wood: Methodology default, 112 tCO ₂ /TJ LPG: IPCC default, 63.1 tCO ₂ /TJ
Choice of data or Measurement methods and procedures	For wood – Methodology default value for this parameter For LPG - 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 – Energy, Chapter 1 – Introduction, Table 1.4 (pg 1.23 and 1.24)
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.
Additional comment	-

Data/parameter	$EF_{b,i,non-CO_2}$
Unit	tCO ₂ /TJ
Description	Non-CO ₂ emission factor arising from use of fuels in baseline scenario
Source of data	Methodology and IPCC default values for wood and LPG respectively
Value(s) applied	Wood: Methodology default, 9.46 tCO ₂ /TJ LPG: 0 tCO ₂ /TJ

Choice of data or Measurement methods and procedures	For wood – Methodology default value for this parameter For LPG – To be assumed as zero
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.
Additional comment	-

Data/parameter	$\eta_{b,i,j}$
Unit	Fraction
Description	Energy efficiency of baseline device <i>j</i> with fuel <i>i</i>
Source of data	Methodology default for three stone fired & Literature for LPG
Value(s) applied	Three stone fire wood stove: 0.10 LPG stove: 0.57
Choice of data or Measurement methods and procedures	Three stone fire stove value of 10% is the MECD default value LPG stove value of 57% has been sourced from a recent literature ³
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.
Additional comment	-

Data/parameter	Percentage of fuel _i								
Unit	%								
Description	Percentage of fuel type <i>i</i> in the baseline situation								
Source of data	Baseline Survey								
Value(s) applied	<table border="1"> <thead> <tr> <th>S. No</th> <th>State</th> <th>Wood%</th> <th>LPG%</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	S. No	State	Wood%	LPG%				
S. No	State	Wood%	LPG%						

³ <https://www.ceew.in/sites/default/files/CEEW-Roadmap-for-Access-to-Clean-Cooking-Energy-in-India-Report-31Oct19-min.pdf>

	1.	Bihar	69%	31%
	2.	Chhattisgarh	69%	31%
	3.	Jharkhand	68%	32%
	4.	Karnataka	70%	30%
	5.	Kerala	68%	32%
	6.	Madhya Pradesh	65%	35%
	7.	Maharashtra	66%	34%
	8.	Odisha	68%	32%
	9.	Rajasthan	68%	32%
	10.	Tamil Nadu	62%	38%
	11.	Uttar Pradesh	68%	32%
	12.	Uttarakhand	68%	32%
	13.	West Bengal	66%	34%
Choice of data or Measurement methods and procedures	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			
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.			
Additional comment	-			

Data / Parameter	$f_{NRB,i,y}$
Unit	Fraction of non-renewability
Description	Non-renewability status of woody biomass fuel <i>i</i> during year <i>y</i>
Source of data	Determined by following the CDM TOOL30, Calculation of the fraction of non-renewable biomass.

Value(s) applied	S.No.	State	f_{NRB}
	1.	Bihar	0.969
	2.	Chhattisgarh	0.660
	3.	Jharkhand	0.832
	4.	Karnataka	0.642
	5.	Kerala	0.728
	6.	Madhya Pradesh	0.826
	7.	Maharashtra	0.802
	8.	Odisha	0.776
	9.	Rajasthan	0.889
	10.	Tamil Nadu	0.737
	11.	Uttar Pradesh	0.951
	12.	Uttarakhand	0.951
	13.	West Bengal	0.947
Choice of data or Measurement methods and procedures	Determined by following the CDM TOOL30, Calculation of the fraction of non-renewable biomass.		
Purpose of data	Calculation of Baseline Emissions Factor/Baseline Emissions.		
Additional comment	As applicable, NRB assessment may be used for multiple scenarios where woody biomass is used. Project developers applying for a renewal of the crediting period must reassess the NRB based on most recent information available. The given f _{NRB} value is fixed for the first crediting period.		

D.2 Data and parameters monitored

>>

SDG 13

Data / Parameter	$\eta_{p,d,y}$
Unit	Fraction
Description	Thermal efficiency of the project device
Source of data	Manufacturer specification or third-party certification
Value(s) applied	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%
Measurement methods and procedures	Manufacturer’s specifications or Third-party certification
Monitoring frequency	For modern electric cooking devices, thermal efficiency is expected to be consistent over the technical life span of the product. In this case, an annual decrease of 0% is assumed for the determination of useful energy across the product life span.
QA/QC procedures	-
Purpose of data	Calculation of Useful Energy/Baseline Emissions.
Additional comment	-

Data / Parameter	$EG_{p,d,y}$																														
Unit	MWh																														
Description	The amount of energy used in the project scenario by device d in year y (MWh)																														
Source of data	Direct, continuous measurement. Sample size was calculated using the sampling approach followed Section 4.4 “General requirements for sampling” of Reduced Emission methodology. Higher than minimum required sample size was considered to accommodate potential device failure, measurement gaps from individual measurement devices. 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.																														
Value(s) applied	<table border="1"> <thead> <tr> <th>S.No.</th> <th>State</th> <th>$EG_{p,d,y}$ (per device)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Bihar</td> <td>0.34</td> </tr> <tr> <td>2.</td> <td>Chhattisgarh</td> <td>0.54</td> </tr> <tr> <td>3.</td> <td>Jharkhand</td> <td>0.55</td> </tr> <tr> <td>4.</td> <td>Karnataka</td> <td>0.37</td> </tr> <tr> <td>5.</td> <td>Kerala</td> <td>0.20</td> </tr> <tr> <td>6.</td> <td>Madhya Pradesh</td> <td>0.34</td> </tr> <tr> <td>7.</td> <td>Maharashtra</td> <td>0.39</td> </tr> <tr> <td>8.</td> <td>Odisha</td> <td>0.51</td> </tr> <tr> <td>9.</td> <td>Rajasthan</td> <td>0.38</td> </tr> </tbody> </table>	S.No.	State	$EG_{p,d,y}$ (per device)	1.	Bihar	0.34	2.	Chhattisgarh	0.54	3.	Jharkhand	0.55	4.	Karnataka	0.37	5.	Kerala	0.20	6.	Madhya Pradesh	0.34	7.	Maharashtra	0.39	8.	Odisha	0.51	9.	Rajasthan	0.38
S.No.	State	$EG_{p,d,y}$ (per device)																													
1.	Bihar	0.34																													
2.	Chhattisgarh	0.54																													
3.	Jharkhand	0.55																													
4.	Karnataka	0.37																													
5.	Kerala	0.20																													
6.	Madhya Pradesh	0.34																													
7.	Maharashtra	0.39																													
8.	Odisha	0.51																													
9.	Rajasthan	0.38																													

	<table border="1"> <tr> <td>10.</td> <td>Tamil Nadu</td> <td>0.29</td> </tr> <tr> <td>11.</td> <td>Uttar Pradesh</td> <td>0.51</td> </tr> <tr> <td>12.</td> <td>Uttarakhand</td> <td>0.57</td> </tr> <tr> <td>13.</td> <td>West Bengal</td> <td>0.43</td> </tr> </table>	10.	Tamil Nadu	0.29	11.	Uttar Pradesh	0.51	12.	Uttarakhand	0.57	13.	West Bengal	0.43
10.	Tamil Nadu	0.29											
11.	Uttar Pradesh	0.51											
12.	Uttarakhand	0.57											
13.	West Bengal	0.43											
Measurement methods and procedures	Direct, continuous measurement through data logger, analog meters.												
Monitoring frequency	Continuously, aggregated monthly.												
QA/QC procedures	<p>Data logger, analog meters that were attached separately to the electric cooking appliances to measure the electricity consumption of the electric cooking appliance(s) was in conformity with industry standard and manufacturer calibrated.</p> <p>For the current monitoring period, new equipment was purchased. The devices were calibrated from the manufacturer. Calibration certification has been submitted to VVB as evidence. In case same equipment is used next monitoring period, equipment shall be calibrated annually. In case of damage or measurement errors, the equipment was replaced.</p> <p>Analog data logger was used. Data was collected by field staff on monthly basis and shared CME.</p> <p>The result of each state was not more than 1kWh per capita per day.</p>												
Purpose of data	Calculation of Useful Energy/Baseline Emissions/Project Emissions.												
Additional comment	-												

Data / Parameter	EF _{el,y}
Unit	tCO ₂ e/MWh
Description	The emissions factor of the project electricity system in year y
Source of data	0.95
Value(s) applied	Harmonised grid emission factor dataset provided by UNFCCC
Measurement methods and procedures	The latest harmonised grid emission factor dataset provided by UNFCCC is applied.

Purpose of data	Calculation of Project Emissions.
Additional comment	This parameter is monitored where the energy consumed by the project devices is electrical and directly measured during project implementation.

Data / Parameter	TDL _{j,y}
Unit	Fraction
Description	Average technical transmission and distribution losses for providing electricity to source j in year y.
Source of data	Determined as per the CDM TOOL05, paragraph 7.2 (Data/parameters monitored, table 3).
Value(s) applied	20%
Measurement methods and procedures	Default values as per CDM Tool 05 paragraph 7.2
Monitoring frequency	Once per monitoring period
QA/QC procedures	Using credible data for the electricity system or default value
Purpose of data	Calculation of Project Emissions.
Additional comment	-

Data / Parameter	LE _y																		
Unit	tCO ₂ e per year																		
Description	Leakage in project scenario in year y																		
Source of data	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 in Option 2 of Section 3.11 of RECH V4.0																		
Value(s) applied	<table border="1"> <thead> <tr> <th>S.No.</th> <th>State</th> <th>Leakage (per device)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Bihar</td> <td>0.052</td> </tr> <tr> <td>2.</td> <td>Chhattisgarh</td> <td>0.058</td> </tr> <tr> <td>3.</td> <td>Jharkhand</td> <td>0.075</td> </tr> <tr> <td>4.</td> <td>Karnataka</td> <td>0.041</td> </tr> <tr> <td>5.</td> <td>Kerala</td> <td>0.024</td> </tr> </tbody> </table>	S.No.	State	Leakage (per device)	1.	Bihar	0.052	2.	Chhattisgarh	0.058	3.	Jharkhand	0.075	4.	Karnataka	0.041	5.	Kerala	0.024
S.No.	State	Leakage (per device)																	
1.	Bihar	0.052																	
2.	Chhattisgarh	0.058																	
3.	Jharkhand	0.075																	
4.	Karnataka	0.041																	
5.	Kerala	0.024																	

	6.	Madhya Pradesh	0.046
	7.	Maharashtra	0.051
	8.	Odisha	0.064
	9.	Rajasthan	0.054
	10.	Tamil Nadu	0.036
	11.	Uttar Pradesh	0.076
	12.	Uttarakhand	0.086
	13.	West Bengal	0.064
Measurement methods and procedures	Calculated using formula $LE = BE * (1 - \text{Leakage emission factor})$		
Purpose of data	Calculation of ER		
Additional comment	CME opted for Option 1.		

SDG 5

Data / Parameter	t _{HH} project
Unit	Hours/HH/week
Description	Time saved during cooking
Source of data	Ex-post monitoring survey records
Value(s) applied	Year 2022: 1.10 hours/HH/week Year 2023: 1.10 hours/HH/week (The time saved by women as they are not collecting firewood any more for cooking)
Measurement methods and procedures	Estimating the time saved by women after project implementation
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	SDG 5 contribution
Additional comment	-

SDG 7

Data / Parameter	AACS _{HH} project
Unit	Number
Description	Number of households with operating induction cookstove
Source of data	Induction cookstove sales record
Value(s) applied	Year 2022: 82,657 Year 2023: 50,868
Measurement methods	Monitor the number of Induction cookstove distributed

and procedures	under the project as an indicator of providing reliable, clean and modern technology (relative to baseline stoves).
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	SDG 7 contribution
Additional comment	-

SDG 8

Data / Parameter	QE IG _{project}
Unit	Number
Description	Quantitative Employment and income generation
Source of data	Employment records
Value(s) applied	For Year 2022 and Year 2023 Male: 91 Female: 12 Total: 103
Measurement methods and procedures	Recording the number of employees (male / female) in the project under administrative, sales, production and management positions
Monitoring frequency	Annually
QA/QC procedures	-
Purpose of data	SDG 8 contribution
Additional comment	Additionally, the employment contract with date of birth has been submitted on sample basis.

D.3. Comparison of monitored parameters with last monitoring period

>>

Not applicable as this is the first monitoring period.

D.4. Implementation of sampling plan

>>

Description of implemented sampling design

As per section B.7.2 of the VPA-DD, sampling approach is applied in line with Guideline: Sampling and Surveys for CDM project activities and PoA (version 4.0) which is prescribed in applied methodology.

The VPA is implemented in 13 states. Within a state, the characteristic of the population is homogenous. Due to the homogeneity feature within the state, simple

random sampling method was applied. A simple random sample is a subset of a population (e.g. villages, individuals, buildings, pieces of equipment) chosen randomly, such that each element (or unit) of the population has the same probability of being selected. The sample-based estimate (mean or proportion) is an unbiased estimate of the population parameter.

Sampling Size

Sample size shall be determined using the following formula:

$$n \geq \frac{1.645^2 N \times p(1 - p)}{(N - 1) \times 0.1^2 + 1.645^2 p(1 - p)}$$

Usage/Project Survey

As per the requirement of applied methodology, a minimum total sample size for Usage/Project survey is 100 with at least 30 samples for project technologies of each age being credited.

Group size	Minimum sample size
<300	30 or population size, whichever is smaller
300 to 1000	10% of group size
>1000	100

For VPA where there are multiple states, sampling has been done state-wise. For e.g. sample size calculation for state of Bihar has been demonstrated below:

Age Group	Total Sales	Sample Size
0-1	10,383	100

Energy Consumption (EG_{p,d,y})

Direct, continuous measurement.

Sampling approach is applied in line with Guideline: Sampling and Surveys for CDM project activities and PoA version 4.0 which is prescribed in applied methodology. Higher than minimum required sample size was considered to accommodate potential device failure, measurement gaps from individual measurement devices.

CME used analog data loggers which were attached externally to the device to continuously monitor the energy consumption. Field staff of POs collected the data on monthly basis and sent it to CME.

The monitoring frequency specified in the registered monitoring plan for the VPA is met as follows –

Technology	Monitoring Frequency	CEPs added during the MP (04/04/2022 to 31/03/2023)	New Monitoring for this MP
Usage/Project	Annual	Yes	Yes
EG _{p,d,y}	Continuously	Yes	Yes

Monitoring usage surveys for various states in this monitoring period was conducted in 17/04/2023 to 15/05/2023. Continuous monitoring of electricity consumption was done starting April 2022 to March 2023.

Sample size for induction stove are as follows:

S.No	Parameter	Sampling approach	Sample size
1	Usage/Project survey in project scenario p during year y	Simple random sampling for proportion-based parameter	100
2	The amount of energy used in the project scenario p during year y (EG _{p,d,y})	Simple random sampling for mean based parameter	33

Collected data/analysis of collected data and meeting required confidence/precision.

The data collected after carrying out the monitoring surveys was further analyzed to see if the required confidence/precision is met. The data collected from the surveys were compiled into the Excel spreadsheet. In order to achieve the 90/10 reliability level for simple random sampling few additional stoves were sampled from the database than that required to cover for non-responses, if any. When the required confidence/precision is not met for any of the induction stove monitored parameters, the upper or lower bound is conservatively applied to arrive at final values for the parameter as per applied methodologies. For all states except Madhya Pradesh, precision was met for all the monitored parameters. For Madhya Pradesh, lower bound was applied for EG_{p,d,y} parameter. This approach of calculating the precision and applying the upper/lower bound to the results is a conservative approach. These details are included in the emission reduction calculation sheets for the VPA.

Demonstration of whether the selected samples are representative of the population and are randomly selected.

The selected samples are representative of the population as they are selected using the guidance given in applied methodology and CDM guideline on "Sampling and surveys for CDM project activities and programme of activities version 4.0" using simple random sampling approaches.

Excel based randomization tool was used to randomly select samples from a population. This tool provides randomly generated numbers when the population size to be sampled and number of samples required are inputted

SECTION E. CALCULATION OF SDG IMPACTS

E.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

>>

SDG 13

Case 1: It is possible to determine the thermal efficiency of the project device and to know the useful energy that is being replaced.

The baseline emissions shall be calculated from the total electric energy input used in the project scenario in year y , the energy ratio of the specific energy consumption of baseline device(s) and the project device, and the baseline emissions factor:

$$BE_y = EG_{p,useful,y} \times EF_{b,useful}$$

Where:

BE_y	Baseline emissions in the year y (tCO _{2e})
$EG_{p,useful,y}$	The amount of useful energy applied in the project in year y (TJ)
$EF_{b,useful}$	Baseline emissions factor (tCO _{2e} per TJ pf energy input)

The useful project energy in year y shall be calculated as follows (Case 1):

$$EG_{p,useful,y} = \sum_d EG_{p,d,y} \times 0.0036 \times \eta_{p,d,y} \quad (3)$$

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
$\eta_{p,d,y}$	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):

$$EF_{b,useful} = \sum_k \left(\sum_{i,j} P_{b,i,j} \times \text{Percentage of fuel}_i \times (EF_{b,i,CO2} \times f_{NRB_{i,y}} + EF_{b,i,non-CO2}) \times NCV_{b,i} \right) \div \sum_k \left(\sum_{i,j} P_{b,i,j} \times \text{Percentage of fuel}_i \times NCV_{b,i} \times \eta_{b,i,j} \right)$$

Where:

$P_{b,i,j}$	Amount of baseline fuel i used in device j in the baseline (tonnes)
$EF_{b,i,CO2}$	CO ₂ emission factor of the baseline fuel i (tCO ₂ e/TJ)
$EF_{b,i,non-CO2}$	Non-CO ₂ emission factor of the baseline fuel i (tCO ₂ e/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)
$\eta_{b,i,j}$	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	2,169	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	0.00095	10,056	1,0857	7,286	7,867
Uttar Pradesh	931.5	0.00164	15,622	6814	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

SDG 5: Gender Equality

5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location

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

Justification:

The amount of time saving due to reduced collected fuel consumption/cooking is 0 as it involves the baseline scenario technology is traditional cookstove.

SDG 7: Affordable and Clean Energy

7.1.2 Proportion of population with primary reliance on clean fuels and technology

$AACS_{HH \text{ baseline}}$ Number of beneficiaries household under Baseline

Justification: There is no Induction stoves distribution in baseline scenario

SDG 8: Decent Work and Economic Growth

8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities

$QE \text{ IG}_{\text{baseline}}$ Total number of employees by employment contract and employment type (Number of person (male and female) hired under Baseline) = 0

Justification: The employment opportunities are created after project implementation started, thus in the baseline scenario the employment creation is 0.

E.2. Calculation of project value or estimation of project situation of each SDG Impact

>>

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 (tCO₂)

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

$EF_{el,y}$ The emissions factor of the electricity system (tCO₂e/MWh)

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

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	2,169	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	1,0857	3,347	3,613
Uttar Pradesh	0.51	0.95	20%	15,622	6814	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				82,987	51,051	42,234	23,879

SDG 5: Gender Equality

Applied methodology/approach	Equation/calculation
5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location Approach: Monitor the average time saving associated with cooking time	Ex-post Monitoring Surveys Records Net Benefit (SDG 5) = $t_{HH \text{ project}} - t_{HH \text{ baseline}}$ Where: $t_{HH \text{ baseline}}$ Average time saving associated with cooking time and fuel collection in baseline $t_{HH \text{ baseline}}$ Average time saving associated with cooking time and fuel collection in project

Year	$t_{HH \text{ project}}$
2022	1.10
2023	1.10

SDG 7: Affordable and Clean Energy

Applied methodology/approach	Equation/calculation
7.1.2 Proportion of population with primary reliance on clean fuels and technology Approach: Monitor the no. of	Induction distribution records Net Benefit (SDG 7) = $AACS_{HH \text{ project}} - AACS_{HH \text{ baseline}}$ Where:

Induction stoves distributed under the project as an indicator of providing clean technology (relative to baseline stoves).	$AACS_{HH_{baseline}}$ Number of households with operating induction cookstove under Baseline $AACS_{HH_{project}}$ Number of households with operating induction cookstove under Project
---	--

Year	$AACS_{HH_{project}}$
2022	82,657
2023	50,868

SDG 8: Decent Work and Economic Growth

Applied methodology/approach	Equation/calculation
8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities Approach: Recording the number of employees (male / female) in the project	Employment records $Net\ Benefit\ (SDG\ 8) = QE\ IG_{project} - QE\ IG_{baseline}$ Where: $QE\ IG_{baseline}$ Total number of employees by employment contract and employment type (Number of person (male and female) hired under Baseline) $QE\ IG_{project}$ Total number of employees by employment contract and employment type (Number of person (male and female) hired under Project)

Year	$QE\ IG_{project}$
2022	Male: 91 Female: 12 Total: 103
2023	Male: 91 Female: 12 Total: 103

E.3. Calculation of leakage

>>

The default leakage fraction (0.95) as allowed by the Methodology is applied in the emission reduction calculation.

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

E.4. Calculation of net benefits or direct calculation for each SDG Impact
Year: 2022

SDG	SDG Impact	Baseline estimate	Project estimate ⁴	Net benefit
13	Climate Action (mandatory)	101,900	47,340	54,554
5	Gender Equality	0	1.10	1.10
7	Affordable and clean energy	0	82,657	82,657
8	Decent Work and Economic Growth	0	20	Male: 91 Female: 12 Total: 103

Year: 2023

SDG	SDG Impact	Baseline estimate	Project estimate ⁵	Net benefit
13	Climate Action (mandatory)	57,520	26,761	30,756
5	Gender Equality	0	1.10	1.10
7	Affordable and clean energy	0	50,868	50,868
8	Decent Work and Economic Growth	0	20	Male: 91 Female: 12 Total: 103

E.5. Comparison of actual SDG Impacts with estimates in approved PDD
Year: 2022

⁴ As per template guideline, leakage is accounted in project estimate

⁵ As per template guideline, leakage is accounted in project estimates

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values ⁶ achieved during this monitoring period
13	232,717	54,554
5	1.3	1.1
7	82,988	82,657
8	20	103

Year: 2023

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values ⁷ achieved during this monitoring period
13	77,002	30,756
5	1.3	1.1
7	52,694	50,868
8	20	103

E.5.1. Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period

>>

“Amount estimated ex ante for this monitoring period in the VPA-DD (tCO₂e)” is calculated from the Total emission reduction estimated for year of operation of the VPA and number of crediting days in the current monitoring period.

To achieve a comparable value of estimates for this monitoring period for the VPA, these are the factors/values considered:

- Total ex-ante estimated value for Year-1 (04/04/2022 to 03/04/2023) of operation of the VPA from start date of crediting period is considered. Current monitoring period (04/04/2022 to 31/03/2023) falls in Year-1 of the crediting period.
- The estimation of ex ante value is made for 360 days (Year 1 i.e. 04/04/2022 to 31/03/2023) i.e. crediting days for this monitoring period⁸.

⁶ Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

⁷ Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

E.6. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

>>

The SDG impact achieved for SGD 8 is more than the estimated value of 20. After the project implementation there was increased need on the ground for energy officers for sales, marketing, end user awareness, demonstration, monitoring, after sales services etc.

SECTION F. SAFEGUARDS REPORTING

>>

Data / Parameter	Principle 6.1. Labour Rights
Unit	-
Description	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.
Source of data	Employment Contracts
Value(s) applied	The CME had made sure that all employment complies with regional labour laws and regulations for Satin, Asirvad, Sarala, Vedika, ESAF and Samasta. 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. Sample employment contracts Satin, Asirvad, Sarala, Vedika, ESAF and Samasta have been submitted to VVB.
Measurement methods and procedures	The employment contract is checked to ensure compliance with Principle 6.1
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	For Safeguarding Principle 6.1
Additional comment	-

⁸ For detailed calculation of "Amount estimated ex ante for this monitoring period in the VPA-DD (t CO₂e)" of this VPA, please refer to the emission reduction calculation sheet.

SECTION G. STAKEHOLDER INPUTS AND LEGAL DISPUTES

G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

>>

The grievance mechanism is in place as per the table shown below. No negative comments that would require adjustments of the PoA/VPA were identified. Partner organization has feedback book at local offices for feedback collection. This was found to be the most effective input/grievance mechanism. However, during the current monitoring period, no grievance was received.

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
	Continuous input / Grievance Expression process book is available at partner local offices.
Continuous Input / Grievance Expression Process Book (mandatory)	By maintaining feedback book at the local office, it is ensured that stakeholders that don't have access to electronic media for expressing concerns / grievances are also able to share their concerns / feedback. Additionally, the end users always have an option to contact the partner organization (representative of MFI/ manufacturers etc.) in case of any feedback / complaints with the product post distribution
GS Contact (mandatory)	help@goldstandard.org
Telephone access (optional)	-
Other	Email: pno@asirvad.in , customer.care@iiflsamasta.com , grievance.officer@sarala.co.in , info@satincreditcare.com , customer.service@teamvedika.com , info@cedarretail.in .

G.2. Report on any stakeholder mitigations that were agreed to be monitored.

>>

There was no mitigation that was agreed to be monitored with any stakeholder during the monitoring period.

G.3. Provide details of any legal contest that has arisen with the project during the monitoring period

>>

There was no legal contest due to the project or against the project during the monitoring period. Project is in compliance with the Host Country's legal,

environmental, ecological, and social regulation and has not reported any challenges related to the same in the concerned monitoring period.

Revision History

Version	Date	Remarks
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Section for POA monitoring Forward action request section Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on safeguard reporting Clarity on design changes Leakage section added for VER/CER projects Addition of Comparison of monitored parameters with last monitoring period Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption