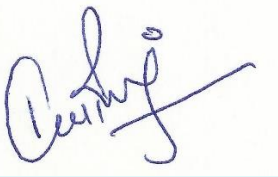


**Validation report form for inclusion of voluntary
project activities**

Gold Standard for Global Goals

BASIC INFORMATION

Title and GS reference number of the programme of activities (PoA)	PoA GS ID: 11450 MicroEnergy Credits – Microfinance for Clean Energy Product Lines - India	
Version number of the validation report	1.0	
Completion date of the validation report	15/09/2022	
Title and reference number of each VPA to be included	VPA no.	Ref. Title
	GS 11482	MicroEnergy Credits PoA – CPA 12
Version numbers of the VPA-DDs to which this report applies	Version 4.1 Dated 13/09/2022	
Applied methodologies and standardized baselines for each CPA	VPA no.	Ref. Applied methodologies
		AMS I.A. – “Electricity generation by the user” (Version 14)
	GS 11482	Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1
Sectoral scopes for each CPA	VPA no.	Ref. Sectoral scopes (indicate mandatory and conditional sectoral scopes)
		Sectoral Scope: 1 Energy industries (Renewable - / Non-renewable sources)
	GS 11482	Sectoral Scope: 3 Energy Demand
Coordinating/managing entity (CME)	MicroEnergy Credits Corporation Private Limited	
VPA Implementer (s)	Shri Kshetra Dharmasthala Rural Development Project (SKDRDP) d.light Energy Private Limited	

Project Participants and any communities involved		
Host Parties	India	
Estimated SDG Impacts	SDG 1: 20,200 ICS 2,622,470 SLS SDG 3: 100 % SDG 5: 100 % SDG 7: 18,180 ICS 2,622,470 SLS SDG 8: 20 employments SDG 13: 815,142 tCO ₂ VERs – SLS 52,838 tCO ₂ VERs – ICS	
Name and UNFCCC reference number of the VVB	Earthood Service Private Limited E-0066	
Name, position and signature of the approver of the validation report	 Dr. Kaviraj Singh, Managing Director	

SECTION A. Executive summary

The GS PoA "MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India" (PoA GS 11450) aims at replacement of fossil fuel consumption and the resultant GHG emission with a cleaner and sustainable technology which will lead to reduced GHG emissions. CME achieves this through dissemination of Improved cookstove (ICS), Solar lighting systems (SLS) and Water Purification systems (WPS) in households/facilities of rural areas in various states of India. The areas where the PoA implementation has taken place use inefficient traditional cookstoves (three-stone fired and equivalent). It has been replaced with improved cookstove (ICS) which combust the fuel far more efficiently resulting in generation of much lesser GHG and particulate matter. Distribution of water purification system results in access to safe drinking water to the household. It replaces the general practice of boiling of water before consumption. This results in reduced fuel usage and thus reduced GHG emissions. The solar lighting systems results in fulfilment of lighting needs through a renewable source (solar energy). Thus, replacing the baseline scenario with the project activity will lead to reduction in GHG emissions and thereby aid in mitigation of climate change.

VPA entitled "MicroEnergy Credits PoA – CPA 12" (VPA GS 11482) is submitted for inclusion under the registered GS PoA "MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India" (PoA GS 11450). The Coordinating/managing entity of the PoA is MicroEnergy Credits Corporation Private Limited and the VPA implementer is d.Light (solar lighting systems) and Shri Kshetra Dharmasthala Rural Development Project (Improved cookstoves).

Parameter	Validated information
GS ID of the VPA to be included	GS 11482
Title of the VPA	GS 11482 – MicroEnergy Credits PoA – CPA 12
Methodology applied	AMS I.A. – "Electricity generation by the user" (Ver. 14) Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), (version 3.1)
Crediting period	5 years, Renewable twice, total 15 years of crediting period

The VPA aims at dissemination of improved cookstove and solar lighting system in various states of India /04/ and is being implemented by MEC's Partner Organizations (PO) and coordinated by MicroEnergy Credits Corporation Private Limited. The VPA aims at GHG emission reductions through displacement of fossil fuel use with improved cookstove and solar lighting systems (ICS and SLS) to meet the thermal and electric demands of facility/household. The households in rural areas of India traditionally use fossil fuels which includes charcoal, kerosene, LPG, diesel, wood, and coal intensive grid for fulfilling their energy demands. The baseline scenario under the VPA is the replacement of traditional three stone fired cookstove with the improved cookstove thereby reducing the amount of fuelwood used for cooking purposes in the baseline. Also, the distribution of solar lighting systems replaces the kerosene-based lamps in households, which would have resulted in GHG emissions due to burning of kerosene.

The first unit was installed under the VPA was on 03/08/2015 and hence this marks the start date of the VPA/20/. The crediting period for the VPA is 5 years, Renewable twice, total 15 years of crediting period, which is in-line with the allowed crediting period under Community Services Activity Requirements version 1.2/11/ and the expected duration of PoA (20 years). The start date and length and type of the crediting period is also consistent with the PoA description in PoA-DD/01/.

The VPA 12 envisages an annual GHG emission reduction of 815,142 tCO₂ for SLS and 52,838 tCO₂ for the ICS over the crediting period under SDG 13, 20,200 units of ICS and 2,622,470 units of SLS are installed under SDG 1, 100 % Households confirming less smoke with the use of ICS under SDG 3, 100 % of average time saving associated with cooking and fuel collection under SDG 5., The population size of 18,180 ICS and 2,622,470 SLS were covered under the Affordable and clean energy SDG (i.e. SDG 07)., The estimated Job are 20 under SDG 8.

Scope of Validation

The scope of the services provided by Earthood Services Private Limited is to perform validation of the VPA GS 11482 (VPA 12 under the PoA GS 11450). The scope of validation is to assess the claims and assumptions made in the VPA DD against the GS4GG criteria, including but not limited to, CDM PS for PoA version 3.0/06/, CDM VVS for PoA version 3.0/07/, applied methodologies, AMS I.A.- "Electricity generation by the user" (Version 14) for application to solar lighting systems and TPDDTEC - Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1. for application to improved cookstove systems/03,10/, GS4GG Principle & Requirements version 1.2/09/, GS4GG Programme of Activity Requirements and procedure version 2.0 /09/, Community Services Activity Requirements version 1.2/11/, GHG Emissions Reductions Sequestration and Product Requirements version 2.1/12/.

Validation Process

The validation process is undertaken by the validation team that involves the following:

1. The desk review of documents and evidence submitted by the project developer in context of reference GS4GG rules and guidelines.
2. On - Site interviews to assess the baseline practices followed by with CME and the VPA Implementer
3. Reporting audit findings concerning clarifications and non-conformities and the closure of the findings, as appropriate,
4. Preparing a draft validation report for the inclusion of VPA complying with the Gold Standard requirements.
5. An independent Technical Review team reviews the validation report prepared by the validation team. The final validation report that is accepted by Technical Reviewer is then approved on behalf of Earthood Services Private Limited and processed further as per GS4GG procedures.

Conclusion

The review of the VPA DD, supporting documentation and subsequent follow-up actions have provided Earthood with sufficient evidence to determine the fulfilment of stated criteria. Earthood is of the opinion that the VPA titled "MicroEnergy Credits PoA – CPA 12" as described in the final VPA DD meet all relevant requirements of GS4GG, meets host country i.e., India criteria and has correctly applied the methodology AMS I.A. version 14/02/ & TPDDTEC version 3.1/03/ for the installation of SLS and ICS. Therefore, the VPA is being recommended to GS4GG for request for inclusion.

SECTION B. Validation team, technical reviewer and approver

B.1. Validation team member

No	Role	Type of resources	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 Audit	Interviews	Validation findings
1.	Team Leader (GS approved Auditor)	IR	Guleria	Shifali	Central office	Y	Y	Y	Y
2.	Technical expert (TA 1.2)	IR	Guleria	Shifali	Central office	Y	Y	Y	Y
3.	Methodology Expert	IR	Guleria	Shifali	Central office	Y	Y	Y	Y
4.	Local Expert (India)	IR	Guleria	Shifali	Central office	Y	Y	Y	Y
5.	Trainee Validator	IR	Varshney	Divij	Central office	Y	N	N	Y
6.	Trainee Validator	IR	Vashisht	Sushant	Central office	Y	Y	Y	Y

*Onsite interviews have been conducted for the current validation and the same has been discussed in detail under section C.2 of this report

B.2. Technical reviewer and approver of the validation 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	IR	Garg	Shreya	Central office
2.	Expert to TR	IR	Garg	Shreya	Central office
3.	Approver	IR	Singh	Kaviraj	Central office

SECTION C. Means of validation

C.1. Desk/document review

The validation of the Voluntary Project Activities (VPA) is performed primarily as a document review of the VPA design documents for VPA 12/04/, ER sheet/05/ and independent research on several platforms. The cross checks between information provided in the VPA-DD/04/ and information from sources other than those used, if available, the validation team's sectoral or local expertise and, if necessary, independent background investigations.

The complete list of documents/evidence assessed by validation team is included under Appendix 3.

C.2. On-site inspection

Duration of on-site inspection: NA				
No.	Activity performed on-site	Site location	Date	Team member
1.	ICS Baseline survey	Karnataka	27/08/2022	Shifali Guleria, Sushant Vashisht
2.	SLS Baseline survey	Odisha	01/09/2022	Shifali Guleria, Satya Ranjan Panda

C.3. Interviews

No.	Interviewee			Date	Subject	Team members
	Last name	First name	Affiliation			
1.	C.K	Kumar Swamy	MicroEnergy Credit	27/08/2022	VPA DD description, Additionality, Baseline identification, Project boundary, Ex-ante and Ex-post parameters	Shifali Guleria, Sushant Vashisht
2.	N.R	Girish	Assistant Manager, SKDRDP head office Dharmsthala	27/08/2022	Baseline scenario, Project technology, technical description	Shifali Guleria, Sushant Vashisht
Baseline Users						
1.	-	Chinnamudamma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
2.	-	Mahadeva mma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
3.	-	Mahadevi	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
4.	-	Channam ma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
5.	-	Cheluvam ma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht

6.	J. B	Rashmi	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
7.	-	Umadevi	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
8.	-	Sannamma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
9.	-	Latha	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
10	-	Sannaputtamma	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
11	-	Kumari	Baseline User ICS	27/08/2022	Baseline device	Shifali Guleria, Sushant Vashisht
12	Behera	Meneka	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
13	Behera	Tilottama	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
14	Behera	Mamata	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
15	Behera	Manjulata	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
16	Behera	Padmini	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
17	Behera	Ranjulata	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
18	Behera	Pasori	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
19	Sahoo	Smutirekha	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
20	Behera	Lilunprava	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
21	Behera	Mataji	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda

22	Behera	Rukmani	Baseline User SLS	01/09/2022	Baseline device	Shifali Guleria, Satya Ranjan Panda
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Type of questions asked by the Validation Team

Baseline Cookstove users:

No .	Questions asked by team members to project beneficiaries	Nature of Responses Received
1.	What is/are the present cooking Device/s in the household?	Positive
2.	Number of cooking devices?	Positive
3.	Does the device have a chimney or gate?	Positive
4.	Fuel type?	Positive
5.	What is the source of wood?	Positive
6.	Number of meals cooked in a day?	Positive
7.	What was the baseline device in use?	Positive
8.	Person responsible for wood collection?	Positive
9.	What is the size of Household?	Positive

Baseline SLS users:

1.	What is/ are the present lighting arrangement/s in the household?	Positive
2.	What was the baseline device in use?	Positive
3.	Number of baseline lamps?	Positive
4.	Fuel Type	Positive
5.	Average hrs. of lamp use per day	Positive
6.	When did they last use baseline device? (Frequency of use)	Positive
7.	Any other type of lamp other than baseline device?	Positive

C.4. Sampling approach

VVB's Sampling approach:

Baseline survey database was provided by the CME. As per para 28, Standard: Sampling and Surveys for CDM project activities and programme of activities version 9.0/32/, DOE has applied acceptance sampling, in order to review the data collection and appropriateness of monitoring plan.

Baseline scenario till date was checked for the purpose of validation scope of the project during the onsite survey. For this, 11 random samples out of surveyed samples were picked from stove and solar lighting systems.

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' version 09.0/32/:

- 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 of 10% and consumer risk of 10% was considered.

Considering the above input values, a sample size of 11 was required as per Table 1 in the referred Standard for Sampling and surveys for CDM project Activities/32/. Accordingly, acceptance number 'c' thus determined for the sample size is 0.

The validation team has checked 11 samples from VPA per technology to confirm description of baseline technology, fuel type, number of devices framework in line with PoA, inclusion eligibility conditions stated in the VPA DD/04/.

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

Areas of validation of compliance	No. of CL	No. of CAR	No. of FAR
Titles of the VPAs and corresponding generic VPAs	-	-	-
Compliance with VPA-DD form	-	CAR#01	-
General description of the VPAs	-	CAR#03	-
Assessment of the eligibility of the VPA under approved PoA	CL#02	-	FAR#01*
Application of methodologies and standardized baselines	-	-	-
Reference to methodologies and standardized baselines	CL#03	-	-
Project boundary, sources and GHGs	-	-	-
Baseline scenario	-	CAR#04	-
Estimation of emission reductions or net anthropogenic removals	-	-	-
Equations and parameters applied to calculate GHG emission reductions or net anthropogenic GHG removals	-	-	-
Data and parameters fixed ex ante	-	-	-
Ex ante calculation of GHG emission reductions or net anthropogenic GHG removals	-	-	-
Monitoring plan	-	-	-
Data and parameters to be monitored	CL#01 CL#05	CAR#02 CAR#05 CAR#06	FAR#01*
Description of the monitoring plan	-	-	-
Start date, crediting period type and duration	CL#04	-	-
Environmental impacts	-	-	-
Local stakeholder consultation (Interviews)	-	-	-
Remote Survey	-	-	-
Safeguarding Principles	-	-	FAR#01*
Double counting	-	-	-

Estimated annual Emission Reductions	CL#06	CAR#07	-
Total	06	07	01

*Raised by GS during preliminary review of the VPA

SECTION D. Validation findings

D.1. Compliance with VPA-DD form

Means of validation	The VPA DD/04/ have been prepared using the applicable version of GS VPA-DD, i.e., version 1.1/08/. It has been checked from the GS website that the form used is the appropriate and applicable for this proposed VPA 06. Each section of the VPA-DD/04/ was also checked with the template guidelines/15/ and found to be fulfilling it.
Findings	CAR#01 was raised and resolved.
Conclusion	The VPA-DD/04/ are found to comply with the applicable form with all the sections filled are in line to the form guidelines.

D.2. General description of the VPA

Means of validation

The purpose of the registered GS PoA "MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India" is installation of Improved cookstove (ICS), Solar lighting system (SLS) and Water Purification system (WPS) in households/facilities in India. The CME of the PoA is Micro Energy Credits Corporation Private Limited and the VPA implementor for this VPA is d.Light and Shri Kshetra Dharmasthala Rural Development Project (SKDRDP). The VPA takes forward the same goal as that of the PoA under which it seeks inclusion. The VPA also includes the dissemination of two of the technologies i.e., Improved cookstoves (ICS) and Solar Lighting system (SLS). The geographical boundary of the VPA is confined to India as a host country.

GS ID of PoA	GS 11450
Title of PoA	MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India

Technology:
The type of technologies distributed under the VPAs are as follows:

S No.	Type of CEP	Model
1.	Improved Cookstove	1. Grameen Greenway Jumbo Stove (GJS)
2.	Solar lighting system	1. D.light S300 2. D.light S350 3. D.light S400 4. D.light S500

The Improved cookstove are available only one size and capacity and the solar lighting system technologies are available in various sizes and capacities. Details of the technologies (ICS and SLS) have been confirmed from the technical specifications/18//19/.

The Technical specifications of CEPs distributed under the VPA are as follows:

Technology	Description				
Improved Cookstove	Product Model	Dimensions	Average unit weight, kg	Thermal Efficiency, %	Average lifetime, years
	Grameen Jumbo Stove (GJS)	12.4" x 10.6" x 11.6"	5 kg	31.17%	5 years
Solar Lighting system	Product Model	Luminosity	Wattage, W	Average Lifetime	
	D.light S300	100 Lumens	1 W	5 Years	
	D.light S350	120 Lumens	3 W	5 Years	
	D.light S400	200 Lumens	4.5 W	5 Years	
	D.light S500	240 Lumens	3 W	5 Years	

According to the VPA-DD, the list above is not exhaustive and other models may be distributed during the crediting period. The provision is found to be acceptable considering that inclusion criteria of PoA and methodology requirements for the applicable technology are met.

Implementation status:

Installation of first solar unit under the VPA took place on 03/08/2015 which determines the start date of the VPA, which was confirmed from the sales invoice /34/. The crediting cycle length is 5 years, Renewable twice, total 15 years of crediting period and type of the crediting period is renewal for the VPA 12 as per para 4.1.40 of Principle and requirements/09/.

The proposed implementation plan of the VPA is as follows:

For ICS: Cumulating projected installations

Year 1: 10,000*

Year 2: 10,000*

Year 3: 27,000

Year 4: 27,000

Year 5: 27,000

For SLS: Cumulating projected installations

Year 1: 1,306,176*

Year 2: 1,306,176*

Year 3: 3,000,000

Year 4: 3,500,000

Year 5: 4,000,000

*Year 1 & Year 2 represent actual sales of CEPs

The number of units distributed until 31/12/2021 have been verified from the sales database/19/ and the calculation of aggregated capacity under the VPA is clearly depicted in the ER sheet /05/ provided by the CME. Thus, the validation team has confirmed that aggregate output capacity from the VPA is under the threshold limit of 15MW for SLS and > 180 GWhth/year for ICS for large-scale VPA.

The VPA 12 will cover an estimated annual GHG emission reduction of 815,142 tCO₂ for SLS and 52,838 tCO₂ for the ICS over the crediting period under SDG 13, 20,200 units of ICS and 2,622,470 units of SLS are estimated average installed CEPs under SDG 1, 100 % Households confirming less smoke with the use of ICS under SDG 3, 100 % of average time saving associated with cooking and fuel collection under SDG 5., The population size of 18,180 ICS and 2,622,470 SLS were covered under the Affordable and clean energy SDG (i.e. SDG 07)., The estimated Job are 20 under SDG 8.

No-ODA

The VPA is not being funded by any Annex-I party which could be verified through the no ODA declaration provided by CME to the validation team/16/.

Grievance Mechanism:

CME has established the grievance mechanism at the PoA level, and the following means can be used by the stakeholders to submit their grievances:

1. Directly registering complains at the head office at the following address: Micro Energy Credits Corporation Private Limited, A203, business suites 9, S V road, Santacruz West, Mumbai 400054 and local offices of the PO. where a Grievance Expression process book is maintained.
2. The feedback book is also maintained at the local office. Additionally, the end users always have an option to contact the partner organization in case any feedback/ complaints with the product post distribution.
3. Email id to register complaints – contact@microenergycredits.com

All the details related to the management system and the grievance mechanism has been confirmed from the CME representatives during the On-site audit conducted by the validation team on 27/08/2022 and 01/09/2022.

Findings	CAR#03 was raised and resolved.
Conclusion	The validation team confirms that: 1. The information provided is complete and correct concerning the description of technology(ies) and/or measures to be used, the description is as per the VPA DD/04/ and is following the GS4GG principles and requirement/09/ including a description of the purpose of the VPA and explanation how the VPA will reduce GHG emissions. 2. The validation team has conducted a thorough and independent assessment of the implementation of the included VPA against the GS4GG principles and requirements. 3. The validation team has assessed both quantitative and qualitative information on GHG emission reduction GHG removals provided in the programme documentation.

4. The validation team has assessed that the implementation and operation of the registered PoA and included VPA, and the steps taken to report GHG emission reductions or net anthropogenic GHG removals comply with the relevant GS4GG principles and requirements.
5. The validation team has assessed that the data collection system meets the requirements of the registered monitoring plan as per the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.

Thus, the implementation of the VPA is meeting the requirements of PS for PoA version 3.0/06/, GS4GG Principles and Requirements/09/ and PoA Requirements version 2.0/10/.

D.3. Assessment of the eligibility of the VPA under approved PoA

Means of validation	The demonstration of the VPA meeting the eligibility criteria for inclusion under the registered GS PoA "Micro Energy Credits Corporation Private Limited" has been represented below:		
	Eligibility Criterion	Applicability Criteria as per Gold Standard	Means of Validation
	1. Boundary and Location of the VPA	The VPA is located within India Refer section A.2 (location of project) of VPA-DD for location of the VPA. Supporting Evidence: The SLS/ICS Installation Database lists all systems as installed within India. Statement of CME that the location and boundary is within India and supported with GPS coordinates.	The geographical boundary of the proposed VPA under the PoA is within India. The sales database/19/ of the project technologies (SLS and ICS) under the VPA was checked to confirm that geographical boundary of the VPA is within India. It was also confirmed from the On – site interviews with the project beneficiaries that ICS and SLS were only installed in India. The CME has also provided a declaration/30/ which states that the location and boundary of the VPA is within India, which is supported by the GPS coordinates. Thus, the criterion was found to be met.

	2. Project Technology:	VPAs involves use of the following technologies- I. Distribution of safe drinking water systems (HWT and CWT technologies) to residential area. II. Distribution of improved cookstoves to households. III. Distribution of Solar lighting systems to households Supporting evidence: Sales database	The Validation team confirmed that the VPA-DD specifies the distribution of Solar lighting system and Improved cookstove systems (SLS and ICS) under the VPA 12, which are all certified by national standards. The technical specifications of SLS and ICS/17//18/ and VPA sales database /19/ were also reviewed to confirm that the VPA under validation has installation of SLS and ICS systems and doesn't have any cross effect of two technologies i.e. ICS and WPS. Thus, the criterion was found to be met.
	3. No Double counting of CEPs impacts within this PoA and across other registered or deregistered PoAs	A unique numbering or identification system for the CEP installed is applied. This shall ensure no double counting of CEPs within the same VPA and same PoA/ and ensure that CEP can be identified as belonging to this PoA and not to a PoA/ project activity registered under another voluntary or compliance GHG program or to a deregistered PoA A legally binding contract between CME and manufacturer/micro finance institution/POs would be required to ensure that all carbon title is transferred to the CME. This shall ensure that POs, stove/lamp manufacturers and distributors do not claim ERs separately.	VVB has verified that the unique numbering on CEP supported by the individual distribution records are in line with the information provided in the specific VPA-DD/04/ and found consistent with the PoA-DD/01/. VVB has reviewed the contract between the CME and Partner organization /24/ and found to be in line with the eligibility criteria. The Carbon title is first transferred from the end-user to POs through a Carbon title form/23/, which has been reviewed and then from POs to CME.

			Hence, it has been confirmed that all the carbon title has been transferred to CME. The list of similar projects across various registries like CDM, VCS, GS and its analysis submitted by CME as dictated in section A.1.1, table 1.2 of VPA-DD and a separate excel file/54/ has been reviewed and it has been confirmed that there is no overlapping with this VPA. Thus, the criterion was found to be met.
	4. VER ownership	End users receiving CEP under the specific VPA and POs contractually cede their rights to claim and own emission reductions to the CME of the PoA.	VVB has reviewed the contract between the CME and Partner organization /24/ and found to be in line with the eligibility criteria. The Carbon title is first transferred from the end-user to POs through a Carbon title form/23/, which has been reviewed and then from POs to CME. Hence, it has been confirmed that all the carbon title has been transferred to CME. Thus, the criterion was found to be met.
	5. No Double counting of VPA	The VPA is exclusively bound to the PoA. Confirmation that the programme activity has not been and will not be registered either as a single project activity or as a VPA under another registered PoA in other offset schemes nor the	A declaration has been submitted by the CME/30/, which states that the VPA under validation will not be a part of a single project activity or a VPA under another registered PoA.

		project activities that have been deregistered.	Thus, the criterion was found to be met.
	6. Awareness and Agreement of those operation a VPA on PoA subscription	Contractual provisions to ensure that those operating the VPA are aware and have agreed that their activity is being subscribed to the PoA. In the case that the CME is not responsible for implementing the VPA, the organization responsible for VPA implementation, known as the Partner Organisation (PO), has signed a contractual agreement with the CME to participate in the PoA. This agreement: - Defines the ownership of the carbon emission reduction rights - Covers the PO's distribution and monitoring related responsibilities - Confirms that the CEPs to be distributed under the VPA have not and will not be distributed under any other carbon project (CDM project, PoA or voluntary carbon market project) Cedes the PO's rights to the carbon credits generated from VPAs under the PoA to the CME	VVB has reviewed the contractual agreement between the POs and CME/24/, which confirms that the POs are aware of the activity of the CME and agreed to subscribed to a PoA. The agreement also confirms the carbon title/23/ has been transferred to the CME. Thus, the criterion was found to be met.
	7. Non – diversion of ODA in case of Public fundings	The CME and the VPA operator (in case of being different from the CME) shall confirm that there is no public funding or in the case of public funding, the Annex 1 party will confirm that funding is not a diversion of Official Development Assistance.	The ODA declaration/16/ has been reviewed and found to be appropriate. Thus, the criterion was found to be met.

	8. Specification of the technology such as the level and type of service, as well as performance specification;	The VPAs will include distribution of improved cookstoves which will replace inefficient cookstoves thereby improving the indoor air pollution levels. The VPAs will include distribution of solar lighting systems which will replace kerosene lamps in baseline	The technological specifications of ICS and SLS /17/,/18/ has been reviewed, which are all certified by national standards and found to be in compliance with the applied methodology/02/,/03/. Thus, the criterion was found to be met.
	9. VPA start Date	The VPAs start date is as registered with the CDM from which the project is transitioning. The VPA can request issuance of GS-VERs or convert issued GS-CERs to GS-VERs for a retroactive period.	VVB has checked the registered CPA-DD/55/ with CDM. The start date of VPA-DD is found to be in line with the registered CPA-DD, which is the date of first solar light installation. The sale invoice/34/ has also been checked and found to be the same. Thus, the criterion was found to be met.
	10. VPA Crediting Period	Crediting period shall be 15 years in line with the Community Service Activity Requirements. The maximum crediting period includes the time that a project or CPA has been issued emission reductions under CDM. Each VPA shall provide verifiable evidence.	The crediting period of the VPA is from 25/08/2018 to 24/08/2033, as indicated in section C.2 of the VPA-DD, which is found to be in line with the para 6.1.1 of GHG emission reduction and sequestration product requirements/12/ and para 4.1.5 of CSA requirements/11/. Thus, the criterion was found to be met.
	11. Approval of VPA by CME	CME approved each VPA to be included into its registered PoA	The CME has provided a declaration/31/ on its letter giving approval for the validating VPA (VPA12 – GS1482) to be included in the PoA

			"MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India". Thus, the criteria was found to be met.
	12. Target groups of the programme	The VPAs included in the POA will involve distribution of WPS or ICS and/or SLS directly to the domestic end users individually or to community in case of WPS.	VVB has checked the tracker output file/40/, credit tracker screenshot/35/, sales invoices/34/ and agreement between the CME and POs/24/, which confirms the target group of the programme. Thus, the criterion was found to be met.
	13. Additionality of VPAs	Additionality will be demonstrated in accordance with EB 68 Annex 27: Guideline on the Demonstration of Additionality of Small Scale Project Activities Version 09, Paragraph 2(c) which states that a barriers analysis is not required to document Additionality for: c) Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5 per cent of the small scale CDM thresholds	VVB has reviewed section A.4 of the VPA-DD/04/ and the calculations to demonstrate the size of each unit and found to be appropriate. The manufacturer's specifications of SLS and ICS/17//18/ has also been reviewed. Hence, it has been confirmed that the size of each unit is less than 5% of the small-scale CDM threshold limit. Thus, the criterion was found to be met.
	14. Sampling requirements for the PoA	The VPAs will follow the usage survey and sampling requirements/ guidelines of the applied methodology(ies) and UNFCCC guidelines on sampling and survey for Programme of Activities version 4.0	The sampling procedure dictated in section B.7.2 of VPA-DD has been checked and found to be in compliance with the requirements of the applied methodology /02//03/ and sampling and survey for Programme of Activities version

			4.0/38/. The detailed assessment of the sampling plan is under section D.5.2 of this report. Thus, the criterion was found to be met.
	15. Application of Methodologies	The methodologies that can be applied to a VPA include: - AMS-I.A (version 14) - AMS-III.AR (version 6) - TPDDTEC (version 3.1) - Emission reduction from Safe Drinking Water Supply (version 1.0) Each VPA can implement these methodologies in isolation. In addition, the following combinations of methodologies are eligible under the PoA: - AMS-I.A (Version 14) or AMS-III.AR (version 6) and TPDDTEC (version 3.1) - AMS-I.A (Version 14) or AMS-III.AR (version 6) and Emission reduction from Safe Drinking Water Supply (version 1.0)	The VPA has applied the methodology: AMS-I.A (version 14)/02/ and TPDDTEC (version 3.1)/03/, which is found to be in line with the eligibility criteria. The detailed assessment of the eligibility of applied methodologies is under section D.4.1 of this report. Thus, the criterion was found to be met.
	16. End User Group	The VPA is either aimed at households, community organisations (e.g. schools) or small/medium enterprises.	VVB has checked the tracker output file/40/, credit tracker screenshot/35/, sales invoices/34/ and agreement between the CME and POs, which confirms the end user group of the programme. Thus, the criterion was found to be met.
	17. Baseline parameters to	Each VPA shall demonstrate how the	The detailed assessment of

	be established at VPA level	baseline parameters for baselines not established at the PoA level (that applies for baselines and options not applicable at the first VPA at the time of PoA registration) that are to be calculated at the VPA level have been determined. Parameters to be monitored are listed in VPA-DD.	baseline parameters established at the VPA level is under section D.5.2 of this report.
	18. Local Stakeholder Consultation	Local stakeholder consultation for VPA to be conducted prior to the VPA start date.	The PoA is transitioning from CDM (CDM9181), and hence, the start date of VPA same as that in CDM i.e. 03/08/2015, with start of crediting period from 25/08/2018. The LSC has been conducted during the registration at CDM on 15/01/2015. The LSC report and invitation has been checked and found to be appropriate. The CME has conducted a supplementary stakeholder consultation meeting on 03/09/2022 for SLS and 29/08/2022 for ICS, to comply with the GS4GG requirements/33/. The SCR report/29/, invitation evidence and attendance/51/ of the LSC has been reviewed and found to be appropriate.
	19. Scale of VPA	VPAs under the PoA can either be small scale or large scale. In case of large scale VPAs, small scale threshold is applicable	VVB has checked the SSC threshold assessment and it has been confirmed that for ICS, small scale threshold is crossed for a maximum sale of 27,000, which is 209

		In case of small scale, the threshold limit as per GHG Emission Reduction & Sequestration Product Requirements, shall be followed where maximum output capacity of distributed renewable energy generation technology shall not be more than 15MW (Type 1) or that achieve energy savings at a scale of no more than 60 GWh per year which is equivalent to 180 GWh(th) per year saving (Type II) or that achieve emission reductions at a scale of no more than 60k tCO₂ per year (TYPE III) for household/community/SM E applications, Small Scale projects and VPAs, solely comprising of such distributed units are not required to demonstrate compliance with the applicable Small Scale thresholds at the aggregate level of the project and VPA, if VPAs are NOT applying suppressed demand baseline.¹ Please note that not all solar lighting system or ICS may have been deployed at VPA inclusion stage, but the threshold however can also be checked during verification, and in case any deployed CEP type will be found not in line with the requirement, those CEPs will not be counted for emission reduction calculation.	GWh (>180 GWh) for an estimated amount of thermal energy saving. For SLS (type I), small scale threshold is crossed for a maximum sale of 5,217,391. However, the total sale till date is only 10,000 ICS and 1,306,176 SLS. So, the VPA is considered a large scale. The actual saving will be calculated during the monitoring process.
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¹ <https://globalgoals.goldstandard.org/ru-2020-ssc-application-of-suppressed-demand/>

	20. Conditions to be met by each VPA regarding SDG outcomes assessment	The CME shall conduct the Sustainable Development Goals (SDGs) impact assessment at the VPA level as per Principles & Requirements	The SDG monitoring plan has been assessed in detail under section D.5.2 of this report. Thus, the criterion was found to be met.
	21. Conditions to be met by each VPA regarding safeguarding principles	Projects shall conduct a Safeguarding Principles Assessment and conform to Gold Standard Safeguarding Principles and Requirements.	The Gold Standard Safeguarding Principles has been assessed in detail under section E.1 of this report. Thus, the criterion was found to be met.
	22. Conditions to confirm that technologies in VPAs are eligible	Specification of technology or measures, such as the level and type of service, as well as performance specification based on, intra alia, testing/certification	VVB has reviewed project technology and technical specifications of ICS and SLS/17/18/ and found to be appropriate. hence, criteria is found to be met.
Findings	CL#02 was raised and resolved.		
Conclusion	The validation team confirms that the proposed VPA is eligible for inclusion under the registered GS PoA "MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India" with GS ID: 11450. The VPA is thus eligible for seeking Gold Standard Certification.		

D.4. Application of methodologies and standardized baselines

D.4.1. Reference to methodologies and standardized baselines

Means of validation	The methodology applied for the VPAs is AMS I.A. – “Electricity generation by the user” (Version 14)/02/ for application to Solar lighting systems and TPDDTEC – Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1/03/ for application to ICS systems.				
	The applicability conditions of the methodology AMS I.A version. 14.0/02/ for the solar lighting system are validated below:				
	<table><tr><th>Applicability criteria</th><th>VVB assessment</th></tr><tr><td>This category comprises renewable electricity generation units that supply individual households/users or groups of households/users included in the project boundary. The applicability of the methodology is limited to individual households and users that</td><td> The VPA includes the installation of Solar Lighting systems that will replace the use of wick-based kerosene lanterns. It has been confirmed that the renewable energy-based </td></tr></table>	Applicability criteria	VVB assessment	This category comprises renewable electricity generation units that supply individual households/users or groups of households/users included in the project boundary. The applicability of the methodology is limited to individual households and users that	The VPA includes the installation of Solar Lighting systems that will replace the use of wick-based kerosene lanterns. It has been confirmed that the renewable energy-based
Applicability criteria	VVB assessment				
This category comprises renewable electricity generation units that supply individual households/users or groups of households/users included in the project boundary. The applicability of the methodology is limited to individual households and users that	The VPA includes the installation of Solar Lighting systems that will replace the use of wick-based kerosene lanterns. It has been confirmed that the renewable energy-based				

	do not have a grid connection except when: a) A group of households or users are supplied with electricity through a standalone mini-grid powered by renewable energy generation unit(s) where the capacity of the generating units does not exceed 15 MW (i.e. the sum of installed capacities of all renewable energy units connected to the mini-grid is less than 15 MW) e.g. a community-based stand-alone off-the-grid renewable electricity systems; or b) For renewable energy-based lighting applications, the emission reductions per system is less than 5 tonnes of CO₂e a year and it shall be demonstrated that that fossil fuels would have been used in the absence of the project activity by: i. A representative sample survey of target households; or ii. Official statistics from the host country government agencies; c) A group of households or users are connected to a grid prior to the start date of the project activity (or the start date of validation with due justification), however the electricity from the grid is available for the households and users for less than 36 hours in any given calendar month during the crediting period or the grid connected households' coverage in the host country is less than 50%	lighting systems has ERs less than 5 tCO₂e per year. The source of information pertaining to the energy usage in urban and rural households as stated in VPA-DD i.e., National Sample Survey Organization (NSSO) 61th and 66th round report, "Energy Sources of Indian Households for Cooking and Lighting", 2004-05 and September 2012 was checked and was found reliable/21/. Thus, it can be concluded that 99% rural household and urban household use fossil fuel-based electricity and kerosene as a primary source of lighting and 44% rural households and 7% urban household used kerosene as source of energy to meet their electric needs. Thus, this VPA will create replacement of fossil fuel substantially. Thus, it can be confirmed that a significant part of the population meets their energy need through conventional sources.
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	Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: (a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir. (b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased, and the power density of the project activity is greater than 4 W/m². (c) The project activity results in new reservoirs and the power density of the power plant, is greater than 4 W/m².	This eligibility criteria is not applicable as VPA doesn't involve hydro power plants.
	Combined heat and power (cogeneration) systems are not eligible under this category.	This eligibility criteria is not applicable.
	If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	This eligibility criteria is not applicable.
	Project activities that involve retrofit or replacement of an existing renewable electricity generation unit are included in this category. To qualify as a small-scale project, the total output of the modified or retrofitted unit shall not exceed the limit of 15 MW.	This eligibility criteria is not applicable.
	In the case of project activities that involve the addition of renewable electricity generation units to an existing renewable electricity generation facility, the total capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	This eligibility criteria is not applicable.
The applicability conditions of the methodology TPDDTEC - version 3.1/03/ for the Improved cookstoves are validated below:		

	Applicability criteria	DoE assessment
	The project boundary needs to be clearly identified, and the technologies counted in the project are not included in any other voluntary market or CDM project activity (i.e. no double counting takes place). In some cases, there may be another similar activity within the same target area. Project proponents must therefore, have a survey mechanism in place together with appropriate mitigation measures so as to prevent any possibility of double counting.	The geographical boundary of the proposed VPA under the PoA is within Indian state of Karnataka. The sales database/19/ of the project technologies (ICS) under the VPA was checked to confirm that geographical boundary of the VPA is within India. It was also confirmed from the On – site interviews with the project beneficiaries that ICS were only installed in India. The CME has also provided a declaration/30/ which states that the location and boundary of the VPA is within India, which is supported by the GPS coordinates. The list of similar projects across various registries like CDM, VCS, GS and its analysis submitted by CME as dictated in section A.1.1, table 1.2 of VPA-DD and a separate excel sheet/54/ has been reviewed and it has been confirmed that there is no overlapping with this VPA.
	The technologies each have continuous useful energy outputs of less than 150kW per unit (defined as the total useful energy delivered from start to end of operation of a unit divided by time of operation). For technologies or practices that do not deliver thermal energy in the project scenario but only displace thermal energy supplied in the baseline scenario, the 150kW threshold applies to the displaced baseline technology	VVB has checked the technical specifications/17//18/ and stove test reports/22/ of the ICS technology – Jumbo stove and confirms that the energy output of the technology is less than 150kW per unit with an thermal efficiency of 31.17%. Thus, the methodology criteria is found to be met.
	Using the baseline technology as a backup or auxiliary technology in parallel with the improved technology introduced by the project activity is permitted as long as a mechanism is put into place to encourage the removal of the old technology (e.g. discounted price for the improved technology) and the definitive	VPA aims at replacing the traditional three stone stove with the improved cookstove. In case the end-user was found to be using the traditional stove along with the ICS then corresponding emissions will be accounted as a part of the project emissions. Thus, this criteria is applicable.

	discontinuity of its use. The project documentation must provide a clear description of the approach chosen and the monitoring plan must allow for a good understanding of the extent to which the baseline technology is still in use after the introduction of the improved technology.	
	The project proponent must clearly communicate to all project participants the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity. For technology producers and the retailers of the improved technology or the renewable fuel in use, this must be communicated by contract or clear written assertions in the transaction paperwork. If the claimants are not the project technology end users, the end users will need to be informed and notified that they cannot claim for emission reductions from the project	The end-user agreement/23/ and agreement between POs and CME/24/ was checked and confirmed that the carbon rights was transferred to the CME. Thus, this criteria is applicable.
	Project activities making use of a new biomass feedstock in the project situation (e.g. shift from non-renewable to green charcoal, plant oil or renewable biomass briquettes) must comply with relevant Gold Standard specific requirements for biomass related project activities, as defined in the latest version of the Gold Standard rules. If the biomass feedstock is sourced from a dedicated plantation, the criteria must apply to both plantations established for the project activity AND existing plantations that were established in the context of other activities but will supply biomass feedstock.	This criteria is not applicable. The project make use of the same non-renewable biomass for ICS, which was verified through the baseline surveys conducted by DOE. However, due to the use of ICS the amount of non-renewable biomass is expected to reduce in the project scenario.
	Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) levels are not worsened compared to the baseline, and greenhouse gases (as listed in section 2.1) emitted	As per VVB assessment, the indoor air pollution (IAP) is expected to decrease due to the increase in thermal efficiency of the project stove than the traditional cookstove.

	by the project fuel/stove combination are estimated with adequate precision. The project fuel/stove combination may include instances in which the project stove is a baseline stove.	This was checked by the CME by carrying out the sample surveys on an annual basis, the results of which will be verified by the verifying DOE during the verification process of the VPA.
	Records of renewable fuel sales may not be used as sole parameters for emission reduction calculation, but may be used as data informing the equations in section 2.0 of this methodology. These records need to be correlated to data on distribution and results of field tests and surveys confirming (a) actual use of the renewable fuel and usage patterns (such as average fraction of non-renewable fuels used in mixed combustion or seasonal variation of fuel types), (b) GHG emissions, (c) evidence of CO levels not deteriorating (d) any further factors effecting emission reductions significantly.	Not applicable
Findings	CL#03 was raised and resolved.	
Conclusion	The validation team confirms that the VPA meet all the applicability conditions of the applied methodologies/02/03/.	

D.4.2. Project boundary, sources and GHGs

Means of validation	1. Solar Lighting System (SLS): <u>Project boundary:</u> The CME has applied methodology AMS I.A "Electricity generation by the user" (Version 14) /02/, for SLS systems. According to para 8 of the methodology, the VPA project boundary is the spatial extent of the project boundary which includes the project renewable electricity generation systems, any project distribution (grid) systems, and the physical sites of the consumers served by the project activity. The CME has established all distributed units in the VPA located within the geographical boundary of India as project boundary for VPA which is in line with the applied methodology/02//03/ and PoA-DD/01/. <u>Sources and GHGs:</u> The greenhouse gases emission source is CO₂ generated from kerosene burning in lamps. There is no source of GHG in project scenario.
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	2. Improved cookstove (ICS): <u>Project boundary:</u> The CME has applied methodology TPDDTEC – Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1/03/ for Improved cookstoves. The project boundary basically defines the physical and geographical boundary of the project facility, and it is well defined in the VPA-DD/04/ (section B3). The project boundary includes the point location of ICS beneficiaries in the host country which is India in the state of Karnataka. Therefore, the project boundary covers all the points of ICS beneficiaries in all the locations. The project boundary is clearly defined in the VPA-DD/04/ as per the applied methodology/02/,/03/. <u>Sources and GHGs:</u> Emissions sources included in the project boundary have been appropriately included in the PoA-DD. CO₂, CH₄ and N₂O emissions due to use of non-renewable biomass in the traditional stove for baseline scenario (for all the project sites) and the project scenario has reduced emissions, thus CO₂, CH₄ and N₂O GHGs are included. No emission source was identified that will be affected by the implementation of the VPA and which are expected to contribute more than 1% of the overall expected average annual emission reductions, that are not addressed by the selected applied methodologies/02//03/.
Findings	No findings
Conclusion	The project boundary, sources and GHGs have been determined in line with the applied methodologies/02//03/.

D.4.3. Baseline scenario

Means of validation	The baseline scenario in the VPAs is same as the one set at PoA level. For AMS-I.A. (Solar lighting System): In India, according to National Sample Survey Organization/21/, 99% urban and rural households used grid electricity and kerosene to meet their electric needs. 7% of urban and 44% rural households used kerosene which when burnt leads to high amount of GHG emission. Thus, 44% of the Indian rural population is reliant on kerosene for lighting as their primary source of fuel /21/. Thus, the baseline scenario for the project is fossil fuel (i.e. kerosene) usage for meeting the energy needs in the baseline. The assessment team has reviewed the VPA-DD/04/ in line with the applied methodology/02/,/03/. CME has conducted additional 720 HHs (45 per state) where 100% of HH have confirmed using kerosene. It is confirmed that the CME has correctly identified the baseline scenario. The assessment team has also validated the information provided in VPA-DD/04/ with the end-users during the on site interviews conducted by the validation team and confirms that the baseline fuel used by all the users is wick-based kerosene lanterns/21/.
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	For TPDDTEC(Improved cookstove): CME has applied an approved baseline and methodology TPDDTEC Version 3.1/03/ which is approved under GS4GG programme. This VPA involves distribution of improved cookstoves with better efficiency to the households. In line with the applied methodology, the baseline scenario is "A baseline scenario is defined by the typical baseline fuel consumption patterns in a population that is targeted for adopting the new project technology." During the interview with the end-users it was confirmed that the amount of fuel used in the traditional stove was more than the amount of fuel used in the improved cookstoves distributed under VPA. Also, it was confirmed from the end-users that they were using three-stone fire as their baseline device and the type of fuel used in the baseline device was wood. The households in which baseline surveys were conducted by project developer were also randomly selected using acceptance sampling by VVB and these households reported usage of traditional mud stoves for cooking purposes. No usage of advanced cooking technologies (LPG, electric stoves etc.) was observed in the households surveyed inside the project boundary. The information recorded during the on-site visit is consistent with the baseline survey records provided by the project developer. The assessment team has reviewed the VPA-DD in line with the applied methodology/02//03/ and it is confirmed that the CME has correctly identified the baseline scenario.
Findings	CAR#04 was raised and resolved.
Conclusion	The VPA is complying with the baseline scenario set at PoA level which could be validated through literature survey/21/ and onsite interviews with the end users of the project and baseline technologies.

D.4.4. Demonstration of Additionality

Means of validation	Applicability conditions	Justification by the CME	Means of validation
	Additionality will be demonstrated in accordance with EB 68 Annex 27: Guideline on the Demonstration of Additionality of SmallScale Project Activities Version 09, Paragraph 2(c) which states that a barriers analysis is not required to document Additionality for:	1. VPA-DD Section A.4 demonstrates that the size of each unit is no larger than 5% of the small-scale CDM threshold. 2. Manufacturer's specifications showing that solar lighting products are less than the 5% of the 15 MW cap. 3. Manufacturer's specifications showing that	VVB has reviewed section A.4 of the VPA-DD/04/ and the calculations to demonstrate the seize of each unit and found to be appropriate. The manufacturer's specifications of SLS and ICS/17//18/ has also been reviewed. Hence, it has been confirmed that the size of each unit is less than 5% of the small-scale CDM threshold limit. Thus, the criterion was found to be met.

	c) Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5 per cent of the small scale CDM thresholds	improved cookstoves are less than the 5% of the 180 GWh cap.	
Findings	None		
Conclusion	The VPA was found to be additional.		

D.4.5. Ongoing financial need

Means of validation	It has been confirmed from the no ODA declaration/16/ that there is no provision for public funding available for the VPA. OFN is required only at time of renewal according to the para 4.1.52 of Principles and requirements /09/.
Findings	No findings.
Conclusion	Not applicable.

D.4.6. Prior Consideration

Means of validation	The project is GS CER project and therefore, prior consideration is not applicable.
Findings	No findings.
Conclusion	The validation team confirms that the VPA fulfils the requirements for the demonstration of prior consideration from Gold Standard certification.

D.5. Estimation of emission reductions or net anthropogenic removals

D.5.1. Equations and parameters applied to calculate GHG emission reductions or net anthropogenic GHG removals

Means of validation	The VPAs applies two methodologies: one for ICS technology and one for SLS technology. The applied methodologies AMS I.A – “Electricity generation by the user” (Version 14)./02/ and TPDDTEC. – Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1/03/ defines the methodological steps to determine the project emissions, baseline emissions and leakages emissions by the proposed project activity. For SLS system:
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As per as section 5.2.1 of AMS I.A – “Electricity generation by the user” (Version 14) /02/,

Baseline emissions are calculated as follows:

$$BE_v = \sum_{i=1}^n BE_{i,v} \quad (\text{Eq. 1})$$

Where:

BE_v : Emissions generated in the absence of the project activity in period v by all lamps. (tCO₂)

$BE_{i,v}$: Emissions generated in the absence of the project activity in period v by all lamps of type i . (tCO₂)

Ex post baseline emission for each lamp type I is calculated with the following equation:

$$BE_v = \sum_{a=1}^n (N_{i,a} * d_{i,a,v}) * l_i * h * \frac{1}{LE_{ker}} * EF_{ker} * 10^{-6} * 3.6 * CF_{i,v,LFR}$$

(Eq. 2)

Where:

BE_v : Emissions generated in the absence of the project activity in period v by all lamps of type i . (tCO₂).

$N_{i,a}$: The total number of solar lamps of type i deployed in period a . (Numbers).

$d_{i,a,v}$: Average number of days lamps of type I that have been deployed in period a were operating in period v . (Days).

I_i : Nominal lumen output of solar lamps of the type I deployed as part of the project activity. (Lumen).

H : Average operating hours of kerosene lamps in the baseline (Hours/day).

LE_{ker} : The specific light output of kerosene when burnt in a kerosene lantern (Lumen/W).

EF_{ker} : The specific CO₂ - emissions of kerosene. (tCO₂/GJ).

$CF_{i,v,LFR}$: This factor corrects the total number of lamps of type I by the share of these lamps that were found to be operational according to the

sampling in period v . The statistical error is included in this parameter (confidence level 90%)

$$CF_{i,v,LFR} = 1 - \left(LFR_{i,v} + z^* \sqrt{\frac{LFR_{i,v} * (1-LFR_{i,v})}{n_{i,v,total}}} \right) \quad (\text{Eq. 3})$$

Where:

$CF_{i,v,LFR}$: The factor corrects the total number of lamps of type I by the share of these lamps that were found to be operational according to the sampling in period v . The statistical error is included in this parameter (confidence level 90%).

$LFR_{i,v}$: Share of lamps of lamp type I in checked sample group $g_{i,v}$ not operational in period v .

Z : Standard normal for a confidence level of 90%

$n_{i,v,total}$: Total number of lamps checked for which a valid result was obtained.

The equations used for the calculation of baseline emission due to the use of kerosene lanterns in the baseline scenario is found to be in line with the applied methodology/03/ and hence, appropriate.

As per the applied methodology/03/, no project emissions and leakage emissions are considered, which is found to be appropriate.

For Improved cookstove -

Using TPDDTEC - Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1 /03/, "When the baseline fuel and the project fuel are the same and the baseline emission factor and project emission are considered the same, the overall GHG reductions achieved by the project activity in year y are calculated as follows:"

$$ERY = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b, fuel} * (f_{NRB,b,y} * EF_{fuel, CO2} + EF_{fuel, nonCO2})) - \sum LE_{p,y} \quad (\text{Eq.3})$$

Where:

$\sum_{b,p}$: Sum over all relevant (baseline b /project p) couples.

$N_{p,y}$: Cumulative number of project technology – days included in the project database for project scenario p against baseline scenario b in year y

$P_{p,b,y}$: Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y , (tons/day).

	$F_{NRB,b,y}$: Fraction of biomass used in year y for baseline scenario b that can be established as non – renewable biomass (drop this term from the equation when using a fossil fuel baseline scenario). $NCV_{b,fuel}$: Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.015 TJ/ton). $EF_{b,fuel, CO_2}$: CO_2 emission factor of the fuel that is substituted or reduced. 112 tCO_2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel. $EF_{b,fuel, non\ CO_2}$: Non – CO_2 emission factor of the fuel that is reduced. $LF_{p,y}$: Leakage for project scenario p in year y (tCO_2e/yr). Leakage if applicable, will be assessed on the following points: - The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project. - The NRB or fossil fuels saved under the project activity are used by non-project users who previously used lower emitting energy sources. - The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for NRB fraction in their baseline scenario. - The project population compensates for loss of the space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology. In line with section 6 of TPDDTEC (v.3.1) as the project involves installation of new systems with high efficiency and hence leakage emission is considered zero.
Findings	None
Conclusion	The methodological choices are justifiable and appropriate as per GS4GG requirements.

D.5.2. Data and parameters:

Means of validation	The monitoring plan in the VPA DD/04/ is correctly applied to the VPA. The monitoring plan has been found to be in compliance with the requirements of the applied methodologies AMS I.A (v. 14)/02/ and TPDDTEC (v. 3.1)/03/. The values of ex-ante parameter and monitored parameters can be found in the table given below. For Improved Cookstove
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Parameter fixed ex-ante:			
Relevant SDG Indicator	Parameter	Value in VPA-DD	VVB Assessment
SDG 13: Climate Action	P _{b,y} Quantity of fuel that is consumed in baseline scenario b during year y	7.194 Kg/household - day	The value of parameter was calculated to be 7.194 kg/HH-day. CME has conducted baseline KPT test/41/ to determine the value of the parameter. The KPT test conducted was found to be in line with the requirements stated in applied methodology/02//03/ and KPT version 4.0/41/. The detailed assessment on the of the baseline KPT is added in this section below. The calculations in the baseline KPT sheet/42/ has been reviewed and found to be appropriate. The parameter will be fixed for the entire crediting period.
SDG 13: Climate Action	EF _{b,i,CO2} CO ₂ emission factor arising from use of fuel type / in baseline scenario	Fuelwood: 112 tCO ₂ /TJ	The value applied for the parameter was found to be default IPCC value/39/ for CO ₂ Emission factor of fuelwood. Hence, found to be appropriate
SDG 13: Climate Action	EF _{b,i,nonCO2} Non – CO ₂ emission factor arising from use of fuel type / in baseline scenario	Wood: 37.25 tCO ₂ e/TJ	The value applied for the parameter was found to be default IPCC value/39/ for non - CO ₂ Emission factor of fuelwood, which has been calculated using the EF of firewood for CH ₄ and N ₂ O and their corresponding GWP. The calculation is found to be appropriate.

	SDG 13: Climate Action	EF_{p,i,CO_2} CO ₂ emission factor arising from use of fuel type <i>i</i> in project scenario	Fuelwood / wood chips: 112 tCO ₂ /TJ	The value applied for the parameter was found to be default IPCC value/39/ for CO ₂ Emission factor of fuelwood. Hence, found to be appropriate
	SDG 13: Climate Action	$EF_{p,i,nonCO_2}$ Non – CO ₂ emission factor arising from use of fuel type <i>i</i> used in project scenario	37.25 tCO ₂ e/TJ	The value applied for the parameter was found to be default IPCC value/39/ for non - CO ₂ Emission factor of fuelwood, which has been calculated using the EF of firewood for CH ₄ and N ₂ O and their corresponding GWP. The calculation is found to be appropriate.
	SDG 13: Climate Action	$NCV_{b,i}$ Net calorific value of the fuel type <i>i</i> used in the baseline scenario	Fuelwood / wood chips: 0.0156 TJ/tonnes	The value applied for the parameter was found to be default IPCC value/39/ for NCV of fuelwood. Hence, found to be appropriate
	SDG 13: Climate Action	$NCV_{p,i}$ Net calorific value of the fuel type <i>i</i> used in the project scenario	Fuelwood / wood chips: 0.0156 TJ/tonnes	The value applied for the parameter was found to be default IPCC value/39/ for NCV of fuelwood. Hence, found to be appropriate
	SDG 13: Climate Action	$f_{NRB,b,i,y}$ Non – renewability status of woody biomass fuel type <i>i</i> that can be established as non – renewable during year <i>y</i>	Fuelwood: 0.860 for karnataka	The value of f_{NRB} is calculated using the Tool 30: Calculation of the fraction of non-renewable biomass of CDM, version 3.0/43/. As per the tool, PD has referred to the FSI report/44/ of various states of India to calculate the individual f_{NRB} . The detailed calculation of the approach has been assessed by the VVB through a f_{NRB} calculation excel sheet/45/. The formulas and approach used by

				the PD is found to be appropriate and in line with the applied methodology/02/,/03/ and Tool 30/43/.
	For Solar lighting systems Parameter fixed ex-ante:			
	Relevant SDG Indicator	Parameter	Value in VPA-DD	VVB Assessment
	SDG 13: Climate Action	LE _{ker} The specific luminous efficiency of kerosene when burnt in a kerosene lantern	0.13 Lumen/W	The value of parameter was sourced from a peer literature study, Jean-Paul Louineau, Modibo Dicko, Peter Fraenkel, Roy Barlow and Varis Bokalders; Rural Lighting: A Guide for Development Workers, Intermediate Technology (IT) Publications in association with The Stockholm Environment Institute 1994. As per the literature, Louineau et al (1994) state an efficiency range of 0.05 to 0.21 lumens/W for hurricane kerosene lanterns. Another study by the world bank states efficiency to be 0.1 lumens/ W. PD has taken the average of the range if value and determine the value of parameter to be 0.13 lumens/W, which is found to be conservative w.r.t study by world bank.
	SDG 13: Climate Action	EF _{ker} The specific CO ₂ emission of kerosene	0.0719 tCO ₂ /GJ	The value applied for the parameter was found to be default IPCC value/39/ for Emission factor of kerosene. Hence, found to be appropriate.

SDG 13: Climate Action	z Standard normal for a confidence of 90%	1.290, 1.645 and 1.96	This is the statistical value for a confidence of 90% for a single sided test, and 90% and 95% for a two-sided test. The value is sourced from a literature "Köhler, Schachtel, Voleske, 2002; Biostatistik, Springer Verlag Berlin Heidelberg; Tafel 2, p. 279". The source was reviewed and found to be appropriate. The value will be used to calculate $CFR_{i,v}$.
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For Improved Cookstove:

Data and parameters to be monitored:

Relevant SDG Indicator	Parameter and Unit	Monitoring Frequency	VVB Assessment
SDG 1:	BSA / HHS Access to basic service to housholds/ institutions, Number	Annually	The estimated value of this parameter is 20,200 ICS (annual average) and 2,622,470 SLS (annual average) and will be determined through the sales database/19/.
SDG 3: Good Health and Well Being	SPM _{HH} Percentage household reporting reduction in smoke while cooking on traditional stove, percentage	Annually	The value of this parameter will be determined through the monitoring survey conducted by the field staff. This will determine the air quality in the HHs/ institution post implementation of stove. The estimated value of the parameter is 100%.
SDG 5:	HHTS Percentage household reporting time saving due to reduction in time spent on collecting fuel or boiling water in	Annual	The value for this parameter will be determined through the monitoring survey conducted by the field staff. This will determine the time reduction in the fuel collection once the ICS is in use. The estimated

		traditional stove, Percentage		value of the parameter is 100%.
	SDG 7: Affordable and Clean Energy	AACS _{HH} Number of households and institutions having access to affordable, reliable and modern project ICS/ SLS, Number	Continuous	The estimated value of this parameter is 18,180 ICS (annual average) and 2,622,470 SLS (annual average). The value of the parameter is determined through the usage rate and total CEPs distributed. This will determine the accessibility of HHs to affordable, reliable and modern ICS.
	SDG 8: Decent Work and Economic Growth	QE IG Quantitative Employment and income generation.	Annually	The value for this parameter will be determined through the employment records/28/ maintained by the CME. This will determine the total number of employment and income generated due to the implementation of the project. The estimated value of parameter is 20 employees.
	SDG 13: Climate Action	P _{p,y} Quantity of fuel that is consumed in project scenario p during year y, kg/household-day	Updated every two years	The quantity of fuel consumed in project scenario is determined using project field test results. The estimated value of the parameter is determined to be 2.309 kg/household-day, which is determined using the baseline KPT. The baseline KPT sheet/42/ and ex-ante ER sheet/46/ has been reviewed and the calculation used to determine the estimated value is found to be appropriate.
	SDG 13: Climate Action	U _{p,y} Usage rate in project scenario	Annual	The estimated value for this parameter is 90%, which is found to be

		p during year y, Fraction or Percentage		appropriate as per cookstove usage guidelines. CME is following the Good practices like Field team training, end- user training and awareness campaign to claim for the 90% usage rate as per cookstove usage rate guidelines/55/. The CME has shared Field team training records, awareness campaign photos, end-user training records/26/, call recordings with end-users and survey questionnaire/52/, from which it is evident that the CME is following good practices. The value of the parameter is determined on an annual basis through Usage Survey which will be carried out by the trained staff.
	SDG 13: Climate Action	Policy for encouraging discontinuation of baseline stove	Updated every two years	The value of this parameter is determined by end-user trainings and will be monitored to demonstrate that end-users have been informed about the use of project stove.
	SDG 13: Climate Action	$N_{p,y}$ Technologies in the project Database for project scenario p through year y, Project technologies credited (Number)	Continuous	The value of the parameter is 27,000 and it will be sourced from monitoring database.
	SDG 13: Climate Action	$LE_{p,y}$ Leakage in project scenario p during year y	Every two years	The estimated value of this parameter is 0. The parameter will be determined through the leakage assessment as per the guidelines in the applied methodology/03/.

For Solar lighting system:
Data and parameters to be monitored:

Relevant SDG Indicator	Parameter and Unit	Monitoring Frequency	VVB Assessment
SDG 13: Climate Action	L_n Lumen output of each solar lamp n deployed as part of project activity	Annual	The value of this parameter used for emission reduction estimates is 140.548 Lumens. The parameter will be determined at the time of sales/ installations.
SDG 13: Climate Action	$N_{i,a}$ Total number of solar lamps of type i that have been deployed in period a	Annual	The value of the parameter is 4,000,000 and it will be sourced from monitoring database.
SDG 13: Climate Action	$d_{i,a,v}$ Average number of days lamps of type i that have been deployed in period a were operating in period v .	Annual	The value determines the average number of days for which the lamp is operational for a period. The value is monitored through credit platform/35/ and monitoring surveys.
SDG 13: Climate Action	H Average operating hours of kerosene lamps in the baseline	Annual	The CME has used the default value of the parameter, which is 3.5 hrs/ day, as per para 8(c) of the applied methodology/02.
SDG 13: Climate Action	$LFR_{i,v}$ Lamp failure rate: Share of lamps of lamp type i in checked sample group $g_{i,v}$ operational in period v	Annual	The value of the parameter is determined using the annual monitoring survey. the results will be checked through the survey sheets and annual monitoring survey. The estimated value of the parameter is 0%.
SDG 13: Climate Action	$CF_{i,v,LFR}$ This factor corrects the total number of lamps of type i by the share of these lamps that were found to be operational	Annual	The value of the parameter is calculated through $LFR_{i,v}$. The value of $LFR_{i,v}$ is based on the monitoring survey of the SLS. The estimated value of the parameter is 100%.

	according to the sampling in period v. The statistical error is included in the parameter (confidence level 90%) when 90/10 precision is not met. Otherwise, the mean value of LFR will be used.		
SDG 13: Climate Action	$n_{i,v,total}$ Total number of lamps checked for which a valid result was obtained.	Annual	The minimum value of the parameter is 30, determined through sampling surveys, as per the standard for sampling and surveys for programme of activities/38/. However, some of the state/ models distributed may have less number of sales, then the maximum number of sales will be used. VVB will check the monitoring results during the verification process.
SDG 13: Climate Action	<i>Kerosene Usage in the Baseline</i> Determination of whether or not the end user used kerosene for lighting prior to the project activity	Annual	The estimated value of the parameter is 100%. The value will be monitored through sales database/19/. This parameter is to determine that all the sales made under the VPA is using kerosene as a baseline.

The assessment team confirmed that the monitoring parameters are sufficient to calculate the emission reductions in accordance with the applied methodologies /02/,/03/. The parameters will be calculated or measured as mentioned above section.

The validation team confirms that list of parameters identified by the CME and as mentioned in the VPA DD/04/ are in line with the monitoring methodology and SDG monitored parameters will be assessed on the basis of monitoring frequency mentioned.

Implementation of Sampling Plan:

Solar Lighting system

	The CME has used CDM guidelines for sampling and surveys for CDM project activities and programme of activities/38/ and for standard: sampling and surveys for CDM project activities and programme of activities/32/ to design the sampling plan for the VPA in line with the applied methodology/2/. The target population will be the end-users. The VPA is implemented in the several states of India with the same baseline and different technology. The CME has divided the population on the basis of state/PO/model and then simple random sampling has been applied for each state/PO/model. The Validation team confirms that the sample requirements are in line with the applied methodology AMS I.A /2/. The sample size calculated should have a confidence/ precision of 90/10. <u>Improved cookstove</u> The sampling plan designed is line with the applied methodology TPDDTEC version 3.1/3/. The target population will be the households of the end-users. The VPA i.e., GS11482 (VPA12), is implemented in the state of Karnataka in India (for ICS) with same baseline scenario and technology and therefore the CME has chosen to apply simple random sampling. The overall sample size is determined for monitored parameters is to be distributed within each age category based on percentage of stoves in corresponding age category. For example, • If only devices in the first year of use (age 0-1) are being credited, a usage parameter must be established through a usage survey for technologies age 0-1. • If technologies in the first year of use (age 0-1) and second year of use (age 1-2) are credited, a usage parameter is required that is weighted to be representative of drop off rates for technologies age 0-1 and age 1-2. For determining the fuel consumption in the project scenarios, the KPT sample size determination shall be based on the guidance given in the methodology i.e a minimum of 100 samples will be monitored with at least 30 samples from each age group to ensure representation from each vintage. The Validation team confirms that the sample requirements are in line with the applied methodology TPDDTEC version 3.1/3/. The sample size calculated should have a confidence/ precision of 90/10.
Findings	CL#05 and CAR#05 was raised and resolved.
Conclusion	The SDGs chosen by CME are accurate & the monitoring of all the parameter align with the methodologies AMS I.A ver.14.0 /2/ and TPDDTEC version 3.1/3/.

D.5.3. Ex-ante estimation of SDG Impact

Means of validation	SDG Targeted	SDG Indicator	Baseline Scenario	Project Scenario	Net Benefit
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	SDG 1: No Poverty	1.4.1 Proportion of population living in households with access to basic services Approach: Monitor the number of households where CEPs are distributed under the project as an indicator of providing basic service access to households	Number of Households where CEPs were distributed in baseline, BSA _{Baseline}	Number of Households where CEPs were distributed in Project, BSA _{Project}	BSA _{Project} - BSA _{Baseline}
	SDG 3: Good Health and well being	3.9.1 Mortality rate attributed to household and ambient air pollution Indicator: Monitoring Surveys conducted to capture information on users' perception on reduction in health issues after shifting to project CEPs	Percentage of household reduction in smoke while cooking on improved stove in baseline, SPM _{Baseline}	Percentage of household reduction in smoke while cooking on improved stove in baseline, SPM _{Project}	SPM _{Project} - SPM _{Baseline}
	SDG 5: Gender Equality	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location. Indicator: Monitoring Surveys conducted to capture	Percentage of household reporting in time saving in fuel collection due to reduced fuel consumption in baseline, HHTS _{Baseline}	Percentage of household reporting in time saving in fuel collection due to reduced fuel consumption in project, HHTS _{Project}	HHTS _{Project} - HHTS _{Baseline}

		information on time savings due to reduced fuel collection needs after shifting to project ICS			
	SDG 7: Affordable and Clean Energy	7.1.2 Proportion of population with primary reliance on clean fuels and technology Indicator: Monitor the number of ICS and SLS distributed under the project as an indicator of providing clean technology (relative to baseline stoves).	Access to affordable and clean energy (Number of operating ICS and SLS units under Baseline), (ACS _{Baseline}).	Access to affordable and clean energy (Number of operating ICS and SLS units under Project), (ACS _{Project}). Number of operating ICS and SLS installations calculated as $N_y = n \text{ (total)} * \text{operational percentage (usage rate (ICS) or } CFR_{i,v,LFR} \text{ (SLS))}$	ACS _{Project} - ACS _{Baseline}
	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 Indicator: Recording the number of employees by gender (male / female) in the project under administrative, sales, production, and	Quantitative Employment and income generation (Number of person (male and female) hired under Baseline), (QE IG _{Baseline}).	Quantitative Employment and income generation (Number of person (male and female) hired under Project), (QE IG _{Project}).	QE IG _{Project} - QE IG _{Baseline}

		management positions.			
	The validation team confirms that the ex-ante calculations of the SDG impact are in line with the applied methodologies, AMS I.A ver 14.0/02/ and TPDDTEC ver. 3.1/03/.				
Findings	CL#01, CAR#02 and CAR#06 was raised and resolved.				
Conclusion	The formulae and approach used for ex ante calculation of baseline emissions has been correctly presented and implemented as per methodology AMS I.A ver 14.0/02/ and TPDDTEC ver. 3.1/03/. They have been given consistently within the VPA DD/04/ and PoA-DD/01/.				

D.6. Start date, crediting period type and duration

Means of validation	The VPA is transitioning from CDM to GS4GG. According to GS4GG Principles and Requirements version 1.2 para 4.1.40/09/, "For distributed technology projects, the start date is the date of implementation of the first unit under the project". The first unit was installed under the VPA on 03/08/2015 and hence this marks the start date of the VPA/20/. The expected operational lifetime of the VPA is 15 years as the project technologies disseminated under the VPA, which is found to be in line with para 6.3.1 of GHG Emission Reductions and sequestration product requirements/12/ and para 4.1.5 of CSA requirements/11/. The VPA has a crediting period of 5 years which is renewable twice. The VPA start date of the crediting period will be 25/08/2018, which is same as CDM crediting period/49/ and found to be in line with the para 6.2.1 of GHG Emission Reductions and sequestration product requirements/12/.
Findings	CL#04 was raised and resolved.
Conclusion	The start date has been confirmed from sales invoice of the first unit sold under the VPA/20/, lifetime and crediting period of the VPA lies within the crediting period of the PoA and is in accordance with GS4GG Principles and Requirements/09/.

D.7. Stakeholder consultation

Means of validation	The VPA is transitioning from CDM to GS4GG, LSC was conducted by the CME at the time of registration with CDM. The CME, Micro Energy Credits Corporation Private Limited held physical local stakeholder meetings on 15/01/2015 for SLS and 14/02/2013 for ICS, which is before the start date of the VPA (i.e. before the distribution of first solar light for the VPA). The CME has shared the LSC report/29/ and invitation evidence/51/, which is found to be in compliance. To transition to GS4GG, LSC should be conducted as per stakeholder consultation and engagement requirements/29/. The CME has conducted a supplementary stakeholder consultation meeting on 03/09/2022 for SLS and 29/08/2022 for ICS, to comply with the requirements of aforementioned document. VVB has assessed the SCR report and topics discussed was found to be fulfilling the criteria set out in stakeholder consultation and engagement requirement/56/. It was confirmed from the on-site interviews with the CME representatives that during the meeting, a detailed objective of the project activity was given to attendees and the transfer of product ownership was also discussed.
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	Since, this is a retroactive project, Stakeholder feedback round (SFR) was also initiated along with the LSC invite. The filled SFR forms were checked to confirm that all comments in the SFR too have been taken under confirmation. The VVB team confirms that there were no negative comments received from the stakeholder consultation rounds and all the queries or concerns raised by the stakeholder were satisfactorily resolved by the CME.
Findings	None
Conclusion	LSC was found to be conducted for the VPA. The validation team confirms that CME has considered and addressed all the stakeholder comments.

SECTION E. Sustainability Assessment

E.1. Safeguard principles assessment

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Assessment team's Opinion/ justification for the mitigation measure
Principle 1: Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights	No	The VPA and CME both respect human rights and are not complicit in violence or human rights abuses.	-
2. The Project shall not discriminate with regards to participation and inclusion	No	The VPA does not discriminate with regards to participation and inclusion	There are no signs that distribution subjects to any discrimination by the CME/53/.
Principle 2. Gender Equality and Women's Rights			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women a. Sexual harassment and/or any forms of violence against	No	Not applicable	Not relevant

women – address the multiple risks of gender-based violence, including sexual exploitation or human trafficking. b. Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. c. Restriction of women’s rights or access to resources (natural or economic). d. Recognise women’s ownership rights regardless of marital status – adopt project measures where possible to support to women’s access to inherit and own land, homes, and other assets or natural resources.			
2. Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work a. Where appropriate for the implementation of a PoA/VPA, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities. b. Introduce conditions that ensure the	No	Not relevant	Not required

participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status. c. Ensure that these conditions do not limit the access of women or men, as the case may be, to PoA/VPA participation and benefits.			
3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks	Yes	The Project takes into account the National Policy for the Empowerment of Women (2011)² in the "advancement of gender equality and empowerment of women". The Project is designed to empower women and improve livelihoods. No gender risks are envisaged in the PoA.	The CME will abide by the national gender strategy/36//37/ and is not complicit in any form of discrimination based on gender differences.
4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)	No	Not relevant	Not required
Principle 3: Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	Yes	The VPA reduces exposure to indoor air pollutants and smoke levels, further reducing incidence of respiratory illness compared to cooking on traditional biomass stoves using solid biomass fuel.	The VPA involves the dissemination of ICS, which is expected to reduce smoke and improve indoor air quality. Hence, further reducing incidence of respiratory illness as compared to traditional stoves.
Principle 4 Cultural heritage, Indigenous Peoples, Displacement and Resettlement			

² [National Policy for the Empowerment of Women| National Portal of India](#)- by Ministry of Women and Child Development

Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	No	Not relevant	The ICS and SLS dissemination doesn't involve anything which can lead to alteration, damage or removal of any critical cultural heritage as confirmed through on site audit.
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	Not relevant	Not applicable
Principle 4.3 Land Tenure and Other Rights			
Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership?	No	Not relevant	Not applicable
Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?"	No	Since this is an Improved cookstove and Solar Lighting system project at household/institution level, there is no risk to land/territory claimed by indigenous people. The devices will be distributed to all willing customers within the project boundary.	Not applicable
Principle 5 Corruption			
The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	The CME does not promote/ or is complicit in direct or indirect corruption.	MEC is not involved nor promotes corruption.
Principle 6 Economic Impacts			
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in	No	The VPA does not involve any forced labour and the CME/VPA Implementer	The CME will make sure that all employment complies with regional

compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions		ensures that all employment is in compliance with local labour regulations and laws.	labour laws and regulations. The VPA does not entail any forced labour.
2. Workers shall be able to establish and join labour organisations	No	The CME puts no constraints / limitation on employees to form a union.	The CME does not restrict or limit employees' ability to organise a union.
3. Working agreements with all individual workers shall be documented and implemented and include: a. Working hours (must not exceed 48 hours per week on a regular basis), AND b. Duties and tasks, AND c. Remuneration (must include provision for payment of overtime), AND d. Modalities on health insurance, AND e. Modalities on termination of the contract with provision for voluntary resignation by employee, AND f. Provision for annual leave of not less than 10 days per year, not including sick and casual leave.	No	The CME's policies and employment contracts are compliant with the requirement	The employment contracts and policies are in compliance/28/.
4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion)	No	The CME does not promote / or is complicit in child labour	The CME does not support child labour and are not involved in it.
5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures	No	Not relevant	Not applicable
Principle 6.2 Negative Economic Consequences			

1. Does the project cause negative economic consequences during and after project implementation?	No	No negative economic consequences are deemed applicable	There are no perceived adverse economic effects.
Principle 7 Climate and Energy			
Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The VPA reduces GHG emissions relative to baseline scenario	The VPA minimises GHG emissions in comparison to the baseline scenario.
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project will reduce fuel resource consumption instead	The VPA reduces GHG emissions by reducing the consumption of fossil fuels to meet the thermal and electric demands. VPA will not require energy supply.
Principle 8 Water			
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	Not applicable	Not applicable
Principle 8.2 Erosion and/or Water Body Instability			
Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	The VPA shall result in reduction in demand of biomass fuel in the region putting less pressure of forests for deforestation and will hence indirectly avoid erosion associated with tree cutting/ felling.	The VPA will reduce the demand for fossil fuels, reducing pressure on forests to be cleared for development. This will indirectly prevent erosion brought on by tree cutting and felling.
Principle 9 Environment, Ecology and Land Use			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	Not applicable	Not applicable
Principle 9.2 Vulnerability to Natural Disaster			

Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	Not applicable	Not applicable
Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	Not applicable	Not applicable
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment?	No	Not applicable	Not applicable
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	Not applicable	Not applicable
Principle 9.6 Pesticide and Fertilizers			
Will the Project involve the application of pesticides and/or fertilizers?	No	Not applicable	Not applicable
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	The VPA does not involve harvesting of forests. The VPA shall result in reduction in demand of biomass fuel in the region putting less pressure of forests for deforestation and will hence indirectly avoid erosion associated with tree cutting/ felling.	There will be no forest harvesting under the VPA. By reducing the need for fossil fuel, the VPA will indirectly prevent erosion brought on by tree cutting and felling and lessen the pressure on the region's forests to become deforested.

Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	Not applicable	Not applicable
Principle 9.9 Animal Husbandry			
Will the Project involve animal husbandry?	No	Not applicable	Not applicable
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	Not applicable	Not applicable
Principle 9.11 Endangered Species			
Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)?	No	Not applicable	Not applicable
AND/OR			
Does the Project potentially impact other areas where endangered species may be present through transboundary affects?			

E.2. Gender Sensitive requirements

Means of validation	Question	Justification provided by CME	VVB Assessment
	Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and	The local stakeholder consultation meeting will be carried out following a gender sensitive approach. The project will incorporate measures to ensure that there is no discrimination based on gender. The improved cookstoves will be distributed to all willing customers within the project boundary and the	The VPA has identified women as key stakeholders and do not promote gender disparity in any manner. So the VPA does not involve and is not complicit in any form of

	implementation as outlined in the Gender Policy?	project will have a positive impact on women considering that they will spend less time on cooking or fuel procurement and will be able to cook in cleaner environment.	discrimination based on gender difference.
	Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The project will contribute towards the goal of host country policy by providing women with efficient cookstoves, thereby they will spend less time on cooking or fuel procurement and will be able to cook in cleaner environment.	The VPA has identified women as key stakeholders and do not promote gender disparity in any manner. So the VPA does not involve and is not complicit in any form of discrimination based on gender difference.
	Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Not required. Improved cookstove projects not following Gender responsive approach do not require to contract an expert as per Gender Equality Requirements & Guidelines.	Not required
	Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	Not required.	Not required
Findings	None		
Conclusion	The Validation team confirms that the VPA comply with the GS4GG Gender Equality guidelines and requirements/47/.		

SECTION F. Internal quality control

A draft inclusion report prepared by validation team is reviewed by an independent technical review team (one or more members) to confirm whether all the internal procedures established and implemented by ESPL were duly complied with and such opinion/conclusion was reached in an objective manner that complies with the applicable GS4GG rules/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 the technical review team are independent of the validation 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 inclusion is submitted to GS. 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 need to be

resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized by the Managing Director on behalf of Earthood Services Private Limited.

SECTION G. Validation opinion

Earthood Services Private Limited (Earthood) has performed a Gold Standard (GS4GG) validation and inclusion of the GS11482 titled "MicroEnergy Credits PoA – CPA 12". The validation and inclusion were performed on the basis of rules and requirements defined by Gold Standard and UNFCCC, as appropriate.

The review of the PoA-DD/01/, VPA-DD/04/, supporting documents and subsequent follow-up actions (independent research of information) has provided Earthood with sufficient evidence to determine the fulfilment of stated criteria.

The VPA will lead to access of clean energy for the people of India. The project results in reduction of CO₂e emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario and the emission reductions attributable to the project are, hence, additional to any that would occur in the absence of the proposed GS programme of activities.

The emission reductions (average) from the proposed VPA "MicroEnergy Credits PoA – CPA 12" are estimated to be 815,142 tCO₂ for SLS & 52,838 tCO₂ for ICS over the selected 5 years of renewable crediting period. The emission reduction forecast has been checked, and it is deemed likely that the stated amount is achievable given that the underlying assumptions do not change.

The monitoring plan explained in VPA-DD/04/ is in compliance with the registered PoA DD/01/. It adequately provides for the ex-post monitoring of the project's emission reductions and sustainable indicators as defined in GS PoA-DD. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is Earthood's opinion that Micro Energy Credits Corporation Private Limited shall be able to implement the monitoring plan.

In summary, "MicroEnergy Credits PoA – CPA 12" as described in the VPA-DD/04/ and, meets all relevant GS requirements and correctly applies the baseline and monitoring methodology AMS I.A ver.14/02/ and TPDDTEC ver.3.1/03/. Therefore, Earthood requests the inclusion of the (GS10879) titled "MicroEnergy Credits PoA – CPA 12" under the registered GS PoA 11450, titled "MicroEnergy Credits – Microfinance for Clean Energy Product Lines – India".

Appendix 1. Abbreviations

Abbreviations	Full Texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CME	Coordinating / Managing Entity
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
VPA	Voluntary Project Activity
VPA DD	Voluntary Project Activity Design Document
DNA	Designated National Authority
DO	Distribution Organisation
EB	CDM Executive Board
EIA	Environmental Impact Assessment
FAO	Food and Agriculture organization
FAR	Forward Action Request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
LSC	Local Stakeholder Consultation
MEC	MicroEnergy Credits Corporation Limited
NRB	Non-Renewable Biomass
PA	Project Activity
PoA	Programme of Activities
PoA DD	Programme of Activities Design Document
SLS	Solar lighting system
ICS	Improved cookstove

Appendix 2. Competence of team members and technical reviewers

Competence Statement	
Name	Shifali Guleria
Education	M.Sc. (Environmental Studies and Resource Management), TERI University
Experience	3+ year
Field	Climate Change
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES
Methodology Expert	YES (AMS-I.A., AMS-II.G.,AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)

Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	Date	16/02/2022
Approved by	Ashok Gautam	Date	18/02/2022

Competence Statement			
Name	Divij Varshney		
Education	M.Tech. Renewable energy systems B.Tech. Electrical Engineering		
Experience			
Field	e.g., Climate Change & Environment / Industry		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	Yes		
Reviewed by	Deepika Mahala, Quality Manager	Date	08/09/2021
Approved by	Ashok Kumar Gautam, Technical Manager	Date	17/09/2021

Competence Statement			
Name	Sushant Vashisht		
Education	M.Sc. Environmental science and Technology		
Experience	6 months		
Field	Environment science and technology		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	Date	10/05/2022

Approved by	Deepika Mahala (Technical Manager)	Date	10/05/2022
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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

S.No	Author	Title	References to the document	Provider
1.	MEC	PoA-DD	version 3.0 date:22/05/2022	CME
2.	UNFCCC	AMS I.A. - Electricity generation by the user	Version 14	Others
3.	GG4GG	TPDDTEC - Technologies and Practices to Displace Decentralized Thermal Energy Consumption	Version 3.1	Others
4.	MEC	VPA-DD	Version 4.1, Dated 13/09/2022	CME
5.	MEC	ER calculation sheet	version	CME
6.	UNFCCC	PS for PoA	Version 3.0	Other
7.	UNFCCC	VVS for PoA	Version 3.0	Other
8.	GS4GG	GS VPA-DD template form	Version 2.0 Dated 04/05/2022	Others

9.	GS4GG	GS4GG Principles and Requirements	Version 1.2 23/10/2019	Others
10.	GS4GG	Programme of Activity Requirements and Procedure	Version 2.0 05/05/2022	Others
11.	GS4GG	Community Services Activity Requirement	Version 1.2 23/10/2019	Others
12.	GS4GG	GHG Emission Reduction & Sequestration Product Requirement	Version 2.1 24/02/2022	Others
13.	GS4GG	Site Visit and Remote Audit Requirements and Procedures	Version 1.0 17/11/2021	Others
14.	GS4GG	Covid Interim Measures	Version 6.0, Dated 14/06/2022	Others
15.	GS4GG	GS VPA-DD template guidelines	Version 1.1 Dated 07/10/2020	Others
16.	MEC	ODA declaration	Date: 01/09/2021	CME
17.	MEC	Technical specifications of Project ICS System	-	CME
18.	MEC	Technical specifications of Project SLS system	-	CME
19.	MEC	Sales database	-	CME
20.	MEC	Start date evidence for VPA	-	CME
21.	Government of India	Energy Sources of Indian Households for Cooking and Lighting September 2012, NSSO, Ministry of Statistics and Programme Implementation	-	Others
22.	MEC	Stove Test Report	-	CME
23.	MEC	End User Agreement (Carbon Title Transfer Form)	-	CME
24.	MEC	Agreement Between POs and CME	-	CME
25.	Central Electricity Authority	Central Electricity Authority: CO ₂ Baseline Database	-	Others
26.	MEC	Records of training (Brochures, photos, attendance, public news, videos etc.) for PO/EE/Technicians and end users.	-	CME
27.	MEC	Baseline Survey	-	CME
28.	MEC	Employment and payroll records	-	CME
29.	MEC	Local Stakeholder Consultation Report	For ICS, dated 07/09/2022 For SLS, dated 07/09/2022	CME
30.	MEC	CME Declaration	-	CME

31.	MEC	CME approval letter	-	CME
32.	UNFCCC	Standard for Sampling and surveys for CDM project Activities	Version 9.0	Others
33.	GS4GG	Stakeholder Consultation and Engagement Requirements	Version 2.1 14/06/2022	Others
34.	MEC	Sales invoices	-	CME
35.	MEC	Tracker Screenshot for ICS and SLS	-	CME
36.	Ministry of Women and Child Development, Government of India	Ministry of Women and Child Development, Government of India (2001) National Policy for the Empowerment of Women. Source: https://wcd.nic.in/womendevlopment/national-policy-women-empowerment	-	Others
37.	Ministry of Women and Child Development, Government of India	Ministry of Women and Child Development, Government of India (2016) National Policy for Women – Draft. Source: https://wcd.nic.in/acts/draft-national-policy-women-2016	-	Others
38.	UNFCCC	Guidelines for Sampling and surveys for CDM project activities and programme of activities	Version 4.0	Others
39.	-	IPCC report	2006	Others
40.	MEC	Tracker output files (ICS & SLS)	-	CME
41.	MEC	Baseline KPT test	-	CME
42.	MEC	Baseline KPT Sheet	-	CME
43.	UNFCCC	Tool 30: Calculation of the fraction of non-renewable biomass of CDM	Version 3	Others
44.	MEC	FSI Report	-	CME
45.	MEC	fnr Calculation for Indian States for Year 2019 based on UNFCCC Tool 30, Version 03	Dated: 03/09/2021	CME
46.	MEC	Ex – ante ER calculation sheet	-	CME
47.	GS4GG	Gender Equality guidelines and requirements	Dated: August 2017	Others
48.	MEC	GS4GG Cover Letter – VPA12	Dated 31/12/2021	CME
49.	UNFCCC	Registered CPA-DD with CDM	Version 4.0, dated 21/08/2018	Others
50.	MEC	Pilot study	-	CME
51.	MEC	LSC: Photos, invitation evidence and attendance	-	CME
52.	MEC	Photos of demonstration of cookstove and bi-weekly meeting and attendance	-	CME
53.	MEC	Company HR policy	-	CME

54.	MEC	GS CDM VCS project analysis	-	CME
55.	GS4GG	Cookstove usage guidelines	-	CME
56.	GS4GG	Stakeholder consultation and engagement requirement	Version 2.1	Others

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

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

FAR ID	01	Section no.	-	Date : 02/09/2022
Description of FAR				
Following FAR's has been raised by GS during the preliminary review: - VVB need to "check supporting documents for all SDG goal estimated." CME is requested to provide supportive documents for SDG parameters. - VVB needs to assess the calculation to demonstrate that ICS disseminated by the VPA are expected to represent a total annual energy savings of less than 180GWh. PP is requested to clarify. - VVB shall check the supporting documents/ references for justification of compliance to all applicable safeguarding principles. CME is requested to provide supportive documents for safeguarding principles. - PD shall conduct the stakeholder consultation and SFR as per the GS4GG requirements when situation permits and before the validation. VVB shall confirm the same during the validation. - A1.1: CME shall note that whether the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature. CME shall present a demonstration of no potential for double counting of impacts in the VPA-DD. PP is requested to demonstrate the same. - A1.2 - PP shall confirm whether the issue of transfer of product ownership from project beneficiaries to PP was explained and discussed transparently during local stakeholder consultation. PP is requested to clarify.				
Project participant response				Date : 06/09/2022
- Supporting documents have been provided for all SDG parameters. - PP has added the calculations to demonstrate total energy savings of ICS disseminated by the VPA is less than 180 GWh. Revised estimated sheet is provided. - CME has provided all the supporting documents such as National Policies, company policies etc. to justify compliance with safeguarding principles. - Physical LSC was conducted on 29th Aug 2022 and 3rd Sept 2022 for this VPA. The SFR was initiated on 29th July and 3rd August respectively. PD has conducted the LSC and SFR as per GS4GG requirement. Evidence for the same is submitted. - The relevant information for all registered projects in the Project Area with GS, or other voluntary or compliance standards have been in provided in the PDD. - PP has transparently discussed the issue of transfer of product ownership from project beneficiaries to PP during Local Stakeholder Consultation.				
Documentation provided by project participant				

1. Supporting documents for SDGs- Employment record, database, emission reduction sheet
2. Revised ex ante calculation sheet
3. Evidences on compliance with safeguarding principles
4. LSC report and relevant evidences (attendance sheet, pictures etc.)
5. Excel with detailed analysis
6. LSC report

DOE assessment	Date: 12/09/2022
1. Supportive documents for all the SDG parameters has been provided by CME. The documents has been reviewed and found to be in compliance with all the SDG parameters targeted by the CME. CLOSED 2. The revised ex-ante ER sheet has been reviewed. The calculation used to demonstrate the total annual saving of the ICS disseminated is found to be correctly implemented. The estimated maximum number of ICS distributed in the crediting period is 27,000, so the estimated annual energy saving comes out to be 209 GWhth/ year, which crosses the threshold limit of small scale. The PP has addressed the same in the MR and has chosen the project scale to be large scale, as per the estimated annual saving of ICS disseminated. Hence, found to be appropriate. CLOSED 3. The supportive documents/ references to the applicable safeguarding principles has been reviewed and found to be appropriate. CLOSED 4. The CME has conducted the stakeholder consultation on 29th Aug 2022 and 3rd Sept 2022 and SFR and relevant documents has been submitted to the VVB. The SCR conducted was found to be in compliance with the GS4GG requirements. The invitations, photos and attendance has reviewed and found to be OK. The SFR round has been conducted and no negative feedback was received by the local stakeholders. CLOSED 5. The detailed analysis provided in the PDD has been reviewed along with VVB's secondary research on various registries like GS, VCS, CDM. All similar projects has been listed out in the PDD and analysis has been done correctly. Hence, no overlapping with other similar registered projects and demonstration of no potential for double counting of impacts has been proven by the CME. CLOSED 6. The issue of transfer of product ownership and carbon rights has been transparently discussed in the LSC. CLOSED FAR#01 is CLOSED.	

Table 2. CL from this verification

CL ID	01	Section no.	D.5.3	Date : 02/09/2022
Description of CL				
Following SDG parameter are targeted in PoA-DD: SDG 13, SDG 1, SDG 3, SDG 5, SDG 7, SDG 8, SDG 12, SDG 15. However, in VPA-DD PD has targeted SDG 13, SDG 1, SDG 3, SDG 5, SDG 7, SDG 8. It has been observed that SDG impact for 12 and 15, indicates the reduction in use of non-renewable biomass per household, which is a relevant impact for the ICS technology distributed. PD is requested to clarify why SDG 12 and SDG 15 are not targeted.				
Project participant response				Date : 06/09/2022
Even though SDG 12 and SDG 15 have relevant impact for ICS technology distributed, yet as per GS4GG, principles and requirement, three SDG paraments need to be included of which PP has included SDG 13, SDG 1, SDG 3, SDG 5, SDG 7 and SDG 8. Additionally, during stakeholder consultation, stakeholder only pointed out the following SDG 13,1,3,5,7 and 8 which has been included in the PoA-DD and VPA-DD.				
Documentation provided by project participant				
Stakeholder consultation reports				
DOE assessment				Date: 12/09/2022

As per para 4.1.2 (b) of GS4GG Principle and requirements, "The Project demonstrates its proposed contribution to the Sustainable Development Goals, meaning at least an impact on SDG 13 plus two other SDGs.". Hence, the CME has demonstrated a minimum of three SDG impacts with mandatory SDG 13. Hence, explanation provided by the CME is found to be appropriate. Also, as per stakeholder consultation and engagement requirements, CME shall discuss the SDG targets. As evident from the SCR, CME has discussed only SDG targets SDG 13,1,3,5,7 and 8. Hence, targeted SDG parameter is found to be appropriate.

CL#01 is CLOSED.

CL ID	02	Section no.	D.3	Date : 02/09/2022
Description of CL				
Section A.1.1 of VPA-DD,				
- Point 3, 'No double counting', PP has provided the list of projects in VPA-DD. Request to clarify the criteria of projects chosen. Also, provide detailed information on registered projects with other standards. - Point 15, 'Application of Methodologies', PD has mentioned "The methodologies that can be applied to a VPA include: AMS-I.A (version 14)". However, in section B.3 of PoA-DD, point 13, methodology AMS-I.A version 14, is not mentioned as a methodology that can be applied to a VPA. PD is requested to justify the use of AMS I.D version 14 in the validating VPA (VPA12) as per eligibility criteria defined for VPA in PoA-DD. - Point 20, 'Host Country Requirements' is not mentioned as a requirement for the eligibility of the project under approved PoA. Please clarify.				
Project participant response				Date : 06/09/2022
- The relevant information for all registered projects in the Project Area with GS, or other voluntary or compliance standards have been provided in the PDD. - PP has now included AMS-I.A (version 14) in the PoA-DD. Revised documentation has been provided. - Point 20 is added to the VPA-DD. Revised documents have been submitted.				
Documentation provided by project participant				
- Excel with detailed analysis - Revised PoA-DD - Revised VPA-DD				
DOE assessment				Date: 12/09/2022
- The detailed analysis provided in the PDD has been reviewed along with VVB's secondary research on various registries like GS, VCS, CDM. All similar projects has been listed out in the PDD and analysis has been done correctly. Hence, no overlapping with other similar registered projects and demonstration of no potential for double counting of impacts has been proven by the CME. CLOSED - The methodology 'AMS I.D Version 14' has been included in the revised PoA-DD. As per para 4.2.1(c) of GHG Emissions reductions and sequestration product requirements, same version and methodology has been applied which is applied at the time of inclusion in the registered PoAs with other standard. Hence, applied methodology and version is found to be appropriate. CLOSED - The host country requirements has been included in the PoA-DD. The compliance of the same has been assessed and it has been concluded that there are no specific legal, environmental, social regulations in India (Host country) for cookstove or solar projects. CLOSED				
CL#02 is CLOSED.				

CL ID	03	Section no.	D.4.1	Date : 02/09/2022
Description of CL				

As per para 4.2.4 of GHG Emissions reductions and sequestration product requirement, "Transition project, PoA/CPAs may apply the latest version of GS approved CDM methodology or methodology tool available at the time first submission (preliminary review for transition)."

PD has applied TPDDTEC version 3.1 in the validating VPA. However, the latest version available in the GS website is v4.0. PD is requested to clarify why older version of the methodology is applied.

Project participant response
Date : 06/09/2022

As per para 4.2.4 of GHG Emissions reductions and sequestration product requirement, "Transition project, PoA/CPAs may apply the latest version of GS approved CDM methodology or methodology tool available at the time first submission. PP submitted for preliminary review on 3rd January 2022 and as per the GS4GG newsletter, the methodology came into effect from 7th January 2022. Also, as per para 8.2.2., the methodology and tool version applied at the time of first submission (preliminary review) may be used for Design Certification as long as the Project is submitted for validation (signing of contract) within six months after the time of first submission for Preliminary Review. PD signed the DOE contract on 02-01-2022 which is within 6 months from first submission.

Documentation provided by project participant

Screenshot of GS newsletter.

DOE assessment
Date: 12/09/2022

The explanation provided by the CME is found to be in line with the transition and product requirements stated in the latest version of GHG Emissions reductions and sequestration product requirements. The CME has indeed signed the contract with VVB on 02/01/2022, which is within six months of the time of first submission. The GS newsletter has also been reviewed and the validity of using TPDDTEC v3.1 is until 7th January, 2022. Hence, the applied methodology and version i.e. TPDDTEC v3.1 used by the CME is found to be appropriate.

CL#03 is CLOSED.

CL ID	04	Section no.	D.6	Date : 02/09/2022
Description of CL				
In Section C.2.1 'Start date of crediting period', PD has mentioned "Since the start date of the GS crediting period shall be same as the start date of the CDM crediting period, GS Crediting period start date- 25/01/2019". However, CDM crediting period starts from 25/08/2018, which has been verified from CDM webpage. PD is requested to clarify.				
Project participant response				Date : 06/09/2022
<i>The Start date of crediting period has been corrected in the VPA-DD to make it in line with CDM PDD and the revised documents have been submitted.</i>				
Documentation provided by project participant				
<i>Revised VPA-DD</i>				
DOE assessment				Date: 12/09/2022
The revised VPA-DD has been reviewed. The Start date of crediting period has been revised to 25/08/2018, which is found to be in line with the CDM crediting period start date for validating VPA (VPA12). The information is found to be in line with para 6.3.1 of GHG Emission Reductions and sequestration product requirements and para 4.1.5 of CSA requirements. Hence, found to be appropriate.				
CL#04 is CLOSED.				

CL ID	05	Section no.	D.5.2	Date : 02/09/2022
Description of CL				
PP is requested to clarify for ICS, how usage rate of 0.9 has been implemented as per cookstove usage rate guidelines v2.0.				
Project participant response				Date : 06/09/2022

PP along with the field team of the PO ensure Good Practices are implemented on ground. PP provided training to the field team on usage survey. Regular trainings were provided included training before the actual fieldwork to ensure that all team members have the knowledge and skills to carry out the required data collection work. PO staff have weekly and bi-weekly meetings with end-users to ensure end-users are using the product and timely after-sales services are provided to them. 100% of the survey and pKPT were conducted in person and the survey questionnaire includes all the relevant questions. PP has defined "use" and "non-use" in the VPADD. It is also ensured the primary cook is interviewed to gather information on kitchen and cooking practices. Lastly, PP also randomly called 5% of the households to cross check if households were visited and all the questions were asked. All the relevant evidences have been provided.

Documentation provided by project participant

PO training record
End user training record
Awareness campaign photos
Recordings
Survey questionnaire

DOE assessment
Date: 12/09/2022

The submitted documents has been reviewed and it has been clarified that CME is following the Good practices like Field team training, end-user training and awareness campaign to claim for the 90% usage rate as per cookstove usage rate guidelines. The CME has shared Field team training records, awareness campaign photos, end-user training records, call recordings with end-users and survey questionnaire, from which it is evident that the CME is following good practices. Hence, 90% usage rate of cookstove applied by the CME is found to be appropriate.

CL#05 is CLOSED.

CL ID	06	Section no.	-	Date :	02/09/2022
Description of CL					
It has been observed that in 'Data Compile_VPA12_Baseline KPT_v3.xlsx', date of measurement is not provided. PP is requested to provide the baseline KPT date with documentary evidence.					
Project participant response					Date : 06/09/2022
The dates of measurement have been added to the Data Compile_VPA12_Baseline KPT_v3.xlsx file. Revised file has been provided.					
Documentation provided by project participant					
Revised KPT file					
DOE assessment					Date: 12/09/2022
The revised KPT file has been reviewed. The date of measurement for bKPT is from 21/10/2020 to 05/11/2020. The information provided is found to be consistent with the VPA-DD. Hence, found to be appropriate.					
CL#06 is CLOSED.					

Table 3. CAR from this verification

CAR ID	01	Section no.	D.1	Date :	02/09/2022
Description of CAR					
As per VPA-DD Template guidelines PD is requested to provide following information in the VPA-DD:					
- In 'Key Project Information', Row 'Title of project', The title of the C/VPA must be prefixed with the GS ID and title of the POA that it is linked to. The number of the VPA should also be in the title. See example below: POA GS ID - POA Title - VPA Title - VPA Number. - PD is requested to use international numbering system throughout the VPA-DD.					
Project participant response					Date : 06/09/2022

1. The information in the Key Project Information has been made in alignment as per VPA-DD Template guidelines. Revised document has been provided
2. International numbering system has been used throughout the VPA-DD. Revised document is provided.

Documentation provided by project participant

Revised VPA-DD

DOE assessment
Date: 12/09/2022

1. The revised VPA-DD has been reviewed. The title of project is now found to be consistent with the template guidelines. CLOSED
2. The revised VPA-DD has been reviewed. The CME has applied international numbering system throughout the VPA-DD. CLOSED

CAR#01 is CLOSED.

CAR ID	02	Section no.	D.5.3	Date : 02/09/2022
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Description of CAR

In Table 2 'Estimated Sustainable Development Contributions', following observations are made:

1. Estimated value of SDG 1 is found to be inconsistent with the Ex-ante ER estimate-ICS&SLS v1 CPA12.xlsx, Tab: Emission Reduction calcs, Cell D10.
2. Estimated value of SDG 7 is found to be inconsistent with the Ex-ante ER estimate-ICS&SLS v1 CPA12.xlsx, Tab: Emission Reduction calcs, Cell D10.
3. PD has used the average of all ICS and lamps distributed respectively to determine the value of SDG 7, which represents Affordable and Clean Energy. However for ICS, PD has multiplied the distributed by usage rate for the value of parameter. PD is requested to clarify if all the solar lighting systems are expected to work throughout the crediting period as no failure rate is determined for the SLS for the parameter.

Project participant response
Date : 06/09/2022

1. Estimated value of SDG 1 is made consistent with ex-ante ER estimate ICS&SLS v1 CPA12.xlsx. Revised document is provided.
2. Estimated value of SDG 7 is made consistent with ex-ante ER estimate ICS&SLS v1 CPA12.xlsx. Revised document is provided.
3. For ex-ante calculations, PD has used 100% usage rate for SLS. It is expected that all solar lights will be working throughout the crediting period. However, for ex-post, PD will monitor the usage parameter for SLS to determine the failure rate. Revised ER sheet is provided.

Documentation provided by project participant

Revised ex ante sheet and VPA-DD

DOE assessment
Date: 12/09/2022

1. The revised VPA-DD has been reviewed. Estimated value of SDG 1 is found to be consistent with the Ex-ante ER estimate-ICS&SLS v1 CPA12.xlsx, Tab: Emission Reduction calcs, Cell D10. The calculation has also been reviewed and found to be appropriate. CLOSED
2. The revised VPA-DD has been reviewed. Estimated value of SDG 7 is found to be consistent with the Ex-ante ER estimate-ICS&SLS v1 CPA12.xlsx, Tab: Emission Reduction calcs, Cell D10. The calculation has also been reviewed and found to be appropriate. CLOSED
3. The explanation provided by the CME is found to be appropriate. Hence, the value for SDG 7 parameter which is 2,622,470 Nos. SLS and 18,180 Nos. for ICS is found to be correctly determined. CLOSED

CAR#02 is CLOSED.

CAR ID	03	Section no.	D.2	Date : 02/09/2022
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Description of CAR

In section A.3, 'Technologies and/or measures', 1. PD has provided the general specifications of Grameen Greenway Smart Stove. However, the product distributed under the VPA is greenway jumbo stove. PD is requested to provide the specifications of Greenway Jumbo Stove. 2. The efficiency of conventional stoves is mentioned as 10%. Request to clarify how efficiency of conventional cookstoves depend on manufacturer's specification as per the footnote provided. 3. PP is requested to clarify with documentary evidences how 10% is chosen as an efficiency of conventional cookstoves. 4. The footnote provided for technical specifications (8) is found to be inconsistent. PD is requested to take corrective actions on the above.	
Project participant response	Date : DD/MM/YYYY
1. The specifications of Grameen Greenway Jumbo Stove have been added. Revised VPA-DD has been provided. 2. The clerical error has been corrected and revised document is provided. 3. The efficiency for conventional cookstoves is provided in TPDDTEC3.1 footnote 24. The reference has been corrected in ER calculation and VPA-DD. 4. The footnote is made consistent. Revised document is provided.	
Documentation provided by project participant	
Revised ex ante sheet and VPA-DD	
DOE assessment	Date: 12/09/2022
1. The revised VPA-DD has been reviewed. The general specifications of Grameen Jumbo Stove has been provided by the CME in VPA-DD. The information provided has been reviewed against the manufacturer's specifications and CDM registered CPA-DD and found to be consistent. CLOSED 2. The revised VPA-DD has been reviewed. The footnote for the traditional cookstove's efficiency has been revised and found to be appropriate. CLOSED 3. The revised VPA-DD has been reviewed. 10% efficiency has been chosen as per the footnote 24 of applied methodology "10% thermal efficiency for primitive stoves (those without chimney and grate) or 20% thermal efficiency for more advanced baseline stoves". As per the baseline survey conducted by the CME and DOE, the traditional stoves is without chimney and grate. Hence, found to be appropriate. CLOSED 4. The revised VPA-DD has been reviewed. The CME has removed the footnote from the technical specifications of traditional cookstove. CLOSED CAR#03 is CLOSED.	

CAR ID	04	Section no.	D.4.3	Date : 02/09/2022
Description of CAR				
Following observations are made in section B.4 'Establishment and description of baseline scenario', 1. On page 51, PD has mentioned "The baseline survey was carried out in the Indian states of Jharkhand". However, as per the baseline survey documents submitted, the baseline survey was conducted for the several states. PD is requested to clarify with supportive documentation. 2. On page 51, para 1 and para 3, PD has mentioned two different months for the baseline survey, which is May 2020 and November 2020. However, as per the baseline survey documents submitted, the baseline survey was conducted in the month of November 2020. PD is requested to clarify with supportive documentation.				
Project participant response				Date : 06/09/2022
1. The baseline survey was conducted for all states which are part of the VPA. VPA-DD has been corrected to include the correct information. Revised document is shared. 2. The clerical error is corrected in the PDD and the revised documents have been provided.				

Documentation provided by project participant	
Revised VPA-DD	
DOE assessment	Date: 12/09/2022
1. CME has submitted the required documents, which indicates that baseline surveys was conducted for all states of India. Baseline survey photos and questionnaire (filled and sample) has been shared and found to be appropriate. The baseline defined is found to be appropriate as per the baseline survey conducted. CLOSED 2. The revised document has been shared and reviewed. The correction has been made and found to be appropriate. The baseline documents has been reviewed and all the calculations to determine the baseline was found to be appropriate. CLOSED	
CAR#04 is CLOSED.	

CAR ID	05	Section no.	D.5.2	Date : 02/09/2022
Description of CAR				
In section B.6 'Sustainable Development Goals (SDG) outcomes', 1. PD is requested to indicate relevant SDG target for SDG 13 'Climate action'. Please revise PDD accordingly. 2. For SDG 3, PD has chosen '% households confirming less smoke with the use solar lighting systems instead of kerosene lamps' as an SDG impact indicator. However, same has not been mentioned in section A.4 of PoA-DD. Please clarify. 3. In section B.6.1, for SDG 8 PD has mentioned SDG target 8.5.1, which is found to be inconsistent with section A.4 of PoA-DD. Please clarify. 4. In section B.6.1, for SDG 13 PD has indicated SDG target 13.2.1 'Amount of CO₂e emissions reduced by the project per year', which is not SDG target indicator 13.2.1 refers to "Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change". However, PD has indicated SDG target 13.2.1 'Amount of CO₂e emissions reduced by the project per year' in both ICS and SLS. Request to clarify which target is chosen for SDG 13 and justify the appropriateness of target with the SDG impact.				
Project participant response				Date : 06/09/2022
1. SDG target for SDG 13 'Climate action' is in line with template guideline of VPA DD v1.1. 2. SDG 3 has been made consistent between VPA-DD and PoA DD. PD has removed this SDG indicator for SLS. Revised document is shared 3. The SDG 8 parameter has been made consistent in the VPA-DD 4. The SDG 13 target has been corrected to 13.2.2 which refers to "Total GHG emission reduction". Revised document is shared.				
Documentation provided by project participant				
Revised VPA-DD and PoA-DD				
DOE assessment				Date: 12/09/2022
1. The explanation provided for SDG 13 is found to be inline with the VPA-DD template guidelines v1.1. hence, appropriate. CLOSED 2. The revised VPA-DD has been reviewed. The PD has removed the SDG 3 target indicator '% households confirming less smoke with the use solar lighting systems instead of kerosene lamps' for SLS, which is found to be in line with the PoA-DD. CLOSED 3. The revised VPA-DD has been reviewed. The PD has revised the SDG 8 target indicator to be 8.3.1, which is now found to be consistent with the PoA-DD. The target indicator chosen is found to be appropriate for the SDG target. CLOSED 4. The revised VPA-DD has been reviewed. The PD has revised the SDG 13 target indicator to be 13.2.2 'Amount of CO₂e emissions reduced by the project per year'. The target indicator chosen is found to be appropriate for the SDG target. CLOSED				
CAR#05 is CLOSED.				

CAR ID	06	Section no.	D.5	Date : 02/09/2022
Description of CAR				
In section B.6.4 'Summary of ex ante estimates of each SDG outcomes', PD has repeated SDG parameters 3 and 8.				
Project participant response				Date : 06/09/2022
In section B.6.4 'Summary of ex ante estimates of each SDG outcomes', duplication in the SDG outcomes has been corrected.				
Documentation provided by project participant				
Revised VPA-DD				
DOE assessment				Date: 12/09/2022
The revised VPA-DD has been reviewed. The duplication in the SDG parameters 3 and 8 has been removed. The SDG parameters indicated and its values has been reviewed and found to be consistent with the ER sheet.				
CAR#06 is CLOSED.				

CAR ID	07	Section no.	-	Date : 02/09/2022
Description of CAR				
Following observations are made in 'Ex-ante ER estimate-ICS&SLS v1 CPA12.xlsx',				
1. In Tab: Emission Reduction calcs, Cell C4:C6 & E4:E6, It has been observed that emission reductions are taken directly from the CDM issued ERs. However, the MP is not consistent with the years. How have you taken into consideration to this. 2. In Tab: Emission Reduction calcs, Cell C6 & E6, formula has Reference to Cell L13 & O14, which is blank. 3. In tab: Threshold Calculations, Cell 14, PD has calculated total energy savings from cookstove to be 156 GWh_{th}/ year, which is calculated from the estimated average number of stoves. However, for estimated maximum no. of stoves i.e. 27,000, the threshold for the small scale is crossed. PP is requested to justify how the small-scale threshold is justified.				
Project participant response				Date : 06/09/2022
1. In Tab: Emission Reduction calcs, Cell C4:C6 & E4:E6, the emission reductions have been corrected (pro-rated) to make it in line with the crediting period. Revised ex ante calculation sheet has been shared. 2. In Tab: Emission Reduction calcs, Cell C6 & E6, the formula reference has been corrected. Revised file is provided. 3. The threshold calculation has been corrected. ICS is falling under large scale and the VPA-DD has been accordingly corrected. Revised document is provided.				
Documentation provided by project participant				
Revised ex ante calculation sheet and VPA-DD				
DOE assessment				Date: 12/09/2022
1. The revised ER sheet has been reviewed. The value is now found to be appropriate, the calculation on the pro-rated basis is found to be correctly applied. CLOSED 2. The revised ER sheet has been reviewed. The referencing of Cell C6 & E6 in Tab: Emission Reduction calcs has been corrected. The calculation has been reviewed and found to be appropriate. CLOSED 3. The calculation for ICS threshold has been corrected. ICS is crossing the small-scale threshold limit. The same has been mentioned in the VPA-DD by the CME, which is found to be appropriate. CLOSED				
CAR#07 is CLOSED.				

Table 4. FAR from this verification

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

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