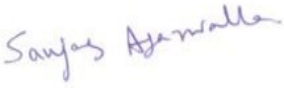
Verification and certification report form for Gold Standard project activities

BASIC INFORMATION	
Title and GS reference number of the project activity	TASC Clean Cooking PoA – VPA02 (Zimbabwe) (GS11551)
Scale of the project activity	☒ Large-scale ☐ Small-scale
Version number of the verification and certification report	06
Completion date of the verification and certification report	03/06/2024
Monitoring period number and duration of this monitoring period	2nd Monitoring period 23/09/2022 – 22/07/2023 (Inclusive)
Version number of the monitoring report to which this report applies	1.9 dated 21/02/2024
Crediting period of the project activity corresponding to this monitoring period	VPA02- 23/09/2021 to 22/09/2026
Project representative(s)	The African Stove Company Ltd. (TASC)
Host Party	Zimbabwe
Applied methodologies and standardized baselines	Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1
Mandatory sectoral scopes	03
Conditional sectoral scopes, if applicable	-
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered POA-DD/VPA-DDS	584,385 tCO_2e
Certified amount of GHG emission reductions or GHG removals for this monitoring period	499,119 tCO_2e
SDG Impacts:	1. SDG 1: No poverty 2. SDG 3: Good health and wellbeing 3. SDG 5: Gender Equality 4. SDG 7: Affordable and Clean Energy 5. SDG 8: Decent work and Economic Growth 6. SDG 12: Responsible Consumption & Production 7. SDG 13: Climate Action

Name and UNFCCC reference number of the DOE	E-0052: Carbon Check (India) Private Ltd.
Name, position and signature of the approver of the verification and certification report	 Sanjay Kumar Agarwalla, Technical Director

SECTION A. Executive summary

Carbon Check (India) Private Ltd. (CCIPL) is performing the periodic verification of the VPA TASC Clean Cooking PoA – VPA 2 (Zimbabwe) and under GS4GG of their registered PoA titled “TASC Clean Cooking PoA” in “Zimbabwe”. Project reference number: -PoA ID- GS11009, VPAs ID- GS11551, for the period 23/09/2022 – 22/07/2023 (inclusive). The VPA will stimulate the installation of Kuniokoa Model wood fuel cookstoves manufactured by Burn Manufacturing LLC, with a thermal efficiency of 41.6%. For VPA 2 stoves were distributed from the date 23/09/2021. The African Stove Company Ltd. (TASC) is the coordinating/managing entity (CME) of the PoA, Cicada Carbon Ltd. (Cicada) is a Project Participant and the MyTrees Trust (MyTrees) is the Implementer of the VPA.

According to the POA-DD/VPA-DDS /B04/ & MR /01-c/, the project activity " TASC Clean Cooking PoA – VPA 2 (Zimbabwe) " is part of the African Stove Company & is the VPA that is implemented in Zimbabwe. The overall objective of the VPA is to contribute to the achievement of the Sustainable Development Goals (SDGs) through the distribution of Improved Cookstoves (ICS) in households of Zimbabwe.

This report summarises the findings of the verification of the project, performed on the basis of Gold standard for global goals (GS4GG), as well as criteria given to provide for consistent project operations, monitoring and reporting and the subsequent decisions by the Gold Standard. Verification is required for all registered GS project activities intending to confirm their achieved emission reductions and proceed with request for issuance of CERs. This report contains the findings and resolutions from the verification and a certification statement for the verified emission reductions.

Verification is the periodic independent review and ex-post determination of both quantitative and qualitative information by a DOE, of the monitored reductions in GHG emissions that have occurred as a result of the project activity during a defined monitoring period.

Certification is the written assurance by a DOE that, during a specific period, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and certify emission reductions reported for the “TASC Clean Cooking PoA – VPA 2 (Zimbabwe)” in the host country “Zimbabwe” for the period 23/09/2022 – 22/07/2023 (inclusive).

The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data and used to confirm the reductions in anthropogenic emissions by sources, is sufficient, definitive and presented in a concise and transparent manner. CCIPL’s objective is to perform a thorough, independent assessment of the registered project activity.

In particular, the monitoring plan, monitoring report and the project’s compliance with relevant GS and Host Party criteria are verified in order to confirm that the component project/s has/have been implemented in accordance with the previously registered project design and conservative assumptions, as documented. It is also confirmed if the monitoring plan is in compliance with the registered PoA-DD/VPA-DD and the approved monitoring methodology.

Scope:

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered PoA-DD/VPA-DDs
- To verify the implemented monitoring plan with the registered PoA-DD/VPA-DDs and applied baseline and monitoring methodology.

- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

Verification process:

The verification comprises a review of the monitoring report /01/ over the monitoring period from 23/09/2022 – 22/07/2023 (inclusive) and based on the registered PoA-DD/VPA-DDs/B04/ as part of the monitoring parameters and monitoring plan, emission reduction calculation spreadsheet, monitoring methodology, and all related evidence provided by project participants.

On-site interviews and inspections are also performed as part of the verification process.

Conclusion:

The verification team assigned by the DOE concludes that the monitoring report /01/, meet all relevant requirements of the Gold Standard as per the requirements of GS4GG. The verification has been conducted in-line with the GS4GG requirements.

The project activity was correctly implemented according to the selected monitoring methodology, monitoring plan and the registered POA-DD/VPA-DDS /B04/. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. The following table provides the resulted emission reduction from the project as verified through the document review and on-site interviews by the verification team.

Vintage (VPA 2)	**ER (tCO_2e)**
23/09/2022 – 31/12/2022	136,613 tCO_2e
01/01/2023 – 22/07/2023	362,506 tCO_2e
Total for the monitoring period	**499,119 tCO_2e**

CCIPL as a DOE is therefore pleased to issue a positive verification opinion expressed in the attached Certification statement.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader	IR	Choudhary	Aparna	CCIPL	X	X	X	X

	/ Verifier / Technical Expert								
2.	Assessor	IR	KV	Kiran	CCIPL	X	X	X	X
3.	Trainee Assessor	IR	Bijani	Vishal	CCIPL	X	X	X	X
4.	Local Expert	ER	Mandishona	Liberty	CCIPL		X	X	

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Dimri	Anubhav	CCIPL
2	Approver	IR	Agarwalla	Sanjay Kumar	CCIPL

SECTION C. Means of verification

C.1. Desk/document review

The verification was performed primarily based on the review of the Monitoring report /01/ and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology. Documents reviewed or referenced during the verification are listed in Appendix 3 below.

C.2. On-site inspection

Onsite physical audit has been performed. The Team leader has conducted the on-site inspection and in particular the simple random sampling.

Furthermore, DOE has considered the Site Visit and Remote Audit Requirements and Procedures, version 1.0/B06/ for conducting the onsite visit. In accordance with the requirements provided in the §3.1.1(b) of the Site Visit and Remote Audit Requirements and Procedures, version 1.0/B06/.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
/01/	Cogho	Edwin	TASC	18/09/2023 to 19/09/2023	MR preparation, GS requirements, Emission reduction calculations, methodology applicability, start date justification, Project Design, ownership details, carbon credit ownership arrangements, monitoring and reporting arrangements, QA/QC	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona

					procedures, baseline assessment, Project technology etc.	
/02/	Hammond	Guy	Cicada Carbon	18/09/2023 to 19/09/2023	Details of survey, methodology, Survey results, QA/QC procedure etc.	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/03/		McDonald	My trees Trust	18/09/2023 to 19/09/2023	Details of survey, methodology, Survey results, QA/QC procedure etc.	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/04/		Regina	My trees Trust	18/09/2023 to 19/09/2023	Details of survey, methodology, Survey results, QA/QC procedure etc.	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/05/		Welsie	My trees Trust	18/09/2023 to 19/09/2023	Details of survey, methodology, Survey results, QA/QC procedure etc.	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/06/	Munodwafa	Patience	KPT Survey Participant (ZM33357)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/07/	William	Michelle	KPT Survey Participant (ZM102072)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/08/	Simango	Faith	KPT Survey Participant (ZM86588)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishon

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/09/	Mihni	Tambudzai	KPT Survey Participant (ZM88227)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/10/	Chipuramuhra	Miriam	KPT Survey Participant (ZM19162)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/11/	Kambewu	Gift	KPT Survey Participant (ZM83008)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/12/	Kugande	Paidamoyo	KPT Survey Participant (ZM25592)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/13/	Kabichi	Takianda	KPT Survey Participant (ZM93325)	18/09/2023 to 19/09/2023	KPT Survey	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/14/	Muleto	Charity	KPT Survey Participant (ZM43488)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/15/	Mugadami	Fiselis Dzingai	KPT Survey Participant (ZM81709)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona

/16/	Maromo	Knowledge	KPT Survey Participant (ZM88438)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/17/	Chikwaka	Plexedes	Habit Survey Participant (ZM93615)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/18/	Wilson	Doubt	Habit Survey Participant (ZM14993)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/19/	Girimone	Mod	Habit Survey Participant (ZM21692)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/20/	Edison	Makova	Habit Survey Participant (ZM27251)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/21/	Sande	Nyadzisai	Habit Survey Participant (ZM96237)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/22/	Gwateya	Proces	Habit Survey Participant (ZM110527)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/23/	Banda	Shupai	Habit	18/09/2023	Habit Survey	Aparna

			Survey Participant (ZM105315)	to 19/09/2023	Questionnaire	Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/24/	Zanamwe	Tasiyala	Habit Survey Participant (ZM94602)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/25/	Kasere	Geria	Habit Survey Participant 9ZM111407)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/26/	Lunga	Sailus	Habit Survey Participant (ZM84205)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona
/27/	Chimera	Bethany	Habit Survey Participant (ZM108711)	18/09/2023 to 19/09/2023	Habit Survey Questionnaire	Aparna Choudhary, Kiran KV, Vishal Bijani, Liberty Mandishona

C.4. Sampling approach

As the target population is homogeneous, PP has proposed simple random sampling plan using 90/10 as confidence/precision. This is in line with the applied methodology /B02/. The sample size for each parameter is determined following guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 /B05/ in accordance with the paragraph 27 of the sampling standard.

In line with paragraph 27 of the Sampling Standard, the verification team has applied simple random sampling approach through on-site interviews on the monitoring survey as part of verification. The project participant had applied sampling approach to the monitoring survey /11/,

conducted by the representatives of project participant. The verification team has chosen acceptance sampling in accordance with paragraph 27 of the sampling standard /B05/.

Applying paragraph 39 (c) of the sampling standard, version 09 /B05/, a sample size of 11 was Chosen for user habit survey , based on an AQL of 0.5% and UQL of 20%; producer risk 10% and consumer risk of 10% each in determining the DOE's sample size Acceptance number (c) thus determined for the sample is 0. A sample size of 11 was chosen for KPT survey /04/ based on an AQL of 0.5% and UQL of 20%; producer risk 10% and consumer risk of 10% each in determining the DOE's sample size Acceptance number (c) thus determined for the sample is 0.

The Information provided in the monitoring survey /11/, has been cross checked during the Onsite visit. As a part of simple random sampling, the Verification team could confirm the monitoring survey data /11/ with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B05/.

Parameter	Verification approach	Population (for DOE's sample)	DOE's Sample Size
Usage & monitoring surveys/11/	Sampling Survey	100	11
KPT Surveys/04/ /10/	Sampling Survey	51	11

The details of the sample interviewed are listed in section C.3 (under the list of interviewed persons). No discrepancy was found in any of the 11 samples for user habit survey and 11 samples for the KPT survey and thus c=0, i.e., no discrepant records were observed. Thus, PP's set of records has been accepted in line with §33 of the sampling standard (version 09.0) /B05/. For the impact parameters, questionnaire was prepared and was used during the survey by the PP. During the on-site interviews, the verification team cross-checked these sample documents, and no discrepancies were found in the impact parameters as well. Furthermore, the training & competency of the personnel/05/, who conducted such test were checked. They were also interviewed to ensure that the process, method used, and their competency to confirm such standardised test were appropriately applied. The sampling technique to draw such samples were found adequate and the sample collectors were found competent to perform such task.

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

The DOE has raised 10 clarifications (CLs) and 07 corrective action requests (CARs) and satisfactorily closed. And, 01 forward action request (FAR) is also raised.

SECTION D. Verification findings

D.1. Remaining forward action requests from validation and/or previous verifications

The following FARs were raised during the 1st performance review:

FAR ID	01 (1st performance review)	Section no.	NA	Date: NA
Description of FAR				
FAR1: All future verifications, DOE shall describe clearly how they have assessed and the applied method of verification and type of interview questions for monitored SDGs to reach the conclusion that meet the compliance of the requirements of the parameter.				
PP response				**Date:** 19/02/2024

This FAR is applicable to the DOE and should be responded to in the DOE verification report. The SDGs are monitored by the PP through conducting in-person habit surveys and KPTs to determine the impact parameters as per Sections C and D of the MR.
Documentation provided by the CME
N/A
DOE assessment **Date:** 20/02/2024
For the SDGs the parameters are listed below: **SDG 13:** $B_{p,y,l}$ (KPT), $U_{p,y}$ (Habit survey), $N_{p,y}$ (Desk Review), $LE_{p,y}$ (Habit survey) **SDG 1:** BSA/HHS (Habit survey) **SDG 3:** SPM_{HH} (Habit survey) **SDG 5:** HHTS (Habit survey) **SDG 7:** $AACS_{HH}$ (Habit survey) **SDG 8:** QE IG (Desk review) **SDG 12:** $B_{y,savings}$ (KPT) The SDGs monitored by the habit survey and the KPTs are verified by preparing a questionnaire based on the PPs record of the Habit survey and the regarding the conduction of the KPTs by the PP, households (samples) are selected randomly from the PP's survey records and KPT records and survey is conducted during the on-site visit by the verification team. Based on the acceptance sampling, survey results of the verification team are compared with the PP's result, as no discrepant records are found in the survey conducted by the verification team the PP's habit surveys and KPT results are deemed appropriate. Parameters verified based on the desk review are thoroughly checked from the PP's records and the supporting document provided, verifying the calculations and procedure applied by the PP and comparing the procedures with the validated PDD or VPA-DD. If found in line with the validated PDD or VPA-DDs the results are verified by the verification team. Refer to **Annex 4:** Questions from the PP's habit survey for monitoring the SDGs.

D.2. Compliance of the project implementation and operation with the registered project design document

Means of verification	Document Review, Interview
Findings	--
Conclusion	Verification team confirms that the latest available version of the monitoring report template has been used and the MR is in compliance with the monitoring report form and related monitoring report template guide. As verified from on-site interview and third-party survey report, the audit team confirm the project implementation and operation complies with the project design document /B04/. The starting date of stove distribution is 23/09/2021 for VPA 2 which is confirmed from the registered PoA-DD/VPA-DDS /B04/. The project boundary in the registered PoA-DD/VPA-DDS /B04/ is in line with the actual project boundary. CCIPL confirms that the project cookstoves are operational through on-site visits and interviews with end users. Each cookstove has a unique identification number that was provided in the end user agreement and are correct according to the project database. Each cookstove is also physically marked with its unique identification number. Along with the serial number, the stove technology, end username, address, commissioning date etc. had also been noted which were found to be consistent on ground. It is noted that no changes have been observed or identified, that may impact the additionality. No addition of component nor extension of technology, no addition nor removal of project sites, no change of values of the actual operational parameter relevant to determination of emission reductions which are within the control of the PP; no change has been

	observed or identified that may impact the scale of the project activity or applicability of baseline and monitoring methodology Technologies and Practices to Displace Decentralized Energy Consumption (version 3.1) /B01/. The first ICS's distribution was commissioned from 23/09/2021 for VPA 2. A total of 85,605 (VPA 2) cookstoves were distributed since the project start date. Verification team based on review of MR /01/ and provided evidence confirms that the households/end users relinquish their right of carbon credits. Furthermore, the ICS implemented under the project is uniquely identified, thus avoiding any potential double counting. As verified through document review and on-site interviews, the project implementation and operation, all physical features of the project complies with the VPA-DD /B04/. Verification team has checked the information in the monitoring report /01/ and compared it against the registered POA-DD/VPA-DDS /B04/ and found to be consistent. Verification team confirms that: a) The project activity is implemented as per registered POA-DD/VPA-DDS/B04/. b) The actual operation of the proposed project activity is in line with the registered/revised POA-DD/VPA-DDS /B04/. c) It has reviewed the registered POA-DD/VPA-DDS /B04/ including the monitoring plan, the applied monitoring methodology and found that the final MR/01/ for this monitoring period is in line with all the above-mentioned documents. Verification team of CCIPL based on review of records and on-site interviews confirms that a robust and effective grievance addressal mechanism is in place and however, no grievances were reported during the monitoring period. The stakeholder feedback round was conducted from 09/01/2023 to 11/02/2023 by the project proponent. In summary, the monitoring period is reasonable, and the operation of the project activity is in accordance with the registered/revised POA-DD/VPA-DDS /B04/.

D.3. Post-registration changes

D.3.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents[1]

Not applicable

D.3.2. Corrections

PP has revised the value of parameters B_{by} and $EF_{b,I,nonCO2}$ in MR. The value of Bpy reported in the VPA DD was based on country statistics value and as per FAR 3 raised during design review, PP has revised the value to 5.4880 which is based on KPT results. The value of EFb,I,nonCO2 has

[1] Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

been rounded up to the most conservative value in the current MR from 0.56 tCO2/tfuel to 0.5588 tCO2/tfuel. DOE confirms that both the revised values provided in the MR is conservative with respect to the value provided in the registered VPA DD.

D.3.3. Changes to the start date of the crediting period

Not applicable

D.3.4. Inclusion of a monitoring plan

Not applicable

D.3.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

Not applicable

D.3.6. Changes to the project design

Not applicable

D.3.7. Changes specific to afforestation and reforestation project activities

Not applicable

D.4. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	Document Review, Interview
Findings	-
Conclusion	The verification team is able to confirm that the monitoring plan contained in the included VPA-DD /B04/ is in accordance with the approved methodology applied by the project activity, i.e. Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC version 3.1 /B02/. The verification took cognizance of § 341 to § 343 of CDM VVS for PoAs, version 03.0 /B01-1/.

D.5. Compliance of monitoring activities with the registered monitoring plan

D.5.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	Document Review, Interview
Findings	CAR02 and CL01 had been raised in this regard and have been resolved.
Conclusion	The following parameters have been fixed ex-ante for the VPA considered under this monitoring period:

Parameter	Description of the parameter	Value	Source	Assessment by VT
$B_{b,y}$	Quantity of fuel consumed in baseline scenario b during year y,	5.4880 tonnes	Baseline kitchen performance tests (KPTs)	The value is consistent with included VPA-DD

	in tonnes			/B04/ and fixed ex-ante for the duration of the crediting period.
$EF_{b,i,CO2}$	CO_2 emission factor arising from use of fuel type i in baseline scenario	Fuelwood: 1.68 tCO_2/t_{fuel}	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.5–- Default emission factors for stationary combustion in the residential and agriculture/forestry/ fishing/fishing farms categories	The value is consistent with included VPA -DD /B04/ and fixed ex - ante for the duration of the crediting period.
$EF_{b,i,nonCO2}$	Non-CO_2 emission factor arising from use of fuel type i in baseline scenario	Fuelwood: 0.5588 tCO_2/t_{fuel}	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.9–- Residential Source Emission Factors, The Gold Standard Simplified Methodology for Efficient Cookstoves, February 2013, ER_Calculation_Tool_Cookstove_Meth_V2.00Summary of the Methodology	The value is consistent with included VPA -DD /B04/ and fixed ex - ante for the duration of the crediting period.

$EF_{p,i,CO2}$	CO_2 emission factor arising from use of fuel type i in project scenario	Fuelwood: 1.68 tCO_2/t_{fuel}	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.5–- Default emission factors for stationary combustion in the residential and agriculture/ forestry/ fishing/fishing farms categories	The value is consistent with included VPA -DD /B04/ and fixed ex - ante for the duration of the crediting period.	
$EF_{p,i,nonCO2}$	Non-CO_2 emission factor arising from use of fuel type i in project scenario	Fuelwood: 0.5588 tCO_2/t_{fuel}	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.9–- Residential Source Emission Factors, The Gold Standard Simplified Methodology for Efficient Cookstoves, February 2013, ER_Calculation_Tool_Cookstove_Meth_V2.00Summary of the Methodology	The value is consistent with included VPA -DD /B04/ and fixed ex - ante for the duration of the crediting period.	
$NCV_{b,i}$	Net calorific value of the fuel type i used in the baseline	Fuelwood: 0.015 TJ/tonnes	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction,	The value is consistent with included VPA-DD /B04/ and fixed ex-	

				Table 1.2–- Default net calorific values	ante for the duration of the crediting period.
	$NCV_{p,i}$	Net calorific value of the fuel type i used in the project scenario	Fuelwood: 0.015 TJ/tonnes	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction, Table 1.2–- Default net calorific values	The value is consistent with included VPA-DD /B04/ and fixed ex-ante for the duration of the crediting period.
	$f_{NRB,b,i,y}$	Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass	Fuelwood: 0.89 Renewable solid biomass fuels (Crop residues / cow dung): 0.0000 Fossil fuels: 1	From C4 EcoSolutions study;	The value is consistent with included VPA-DD /B04/ and fixed ex-ante for the duration of the crediting period.

Verification team confirms that the Data and parameters fixed ex-ante are in accordance with the registered PoA-DD and registered/ included VPA-DD /B04/ and the monitoring plan.

The verification took cognizance of §344, §345l) and §357 of CDM VVS for PoAs, version 03.0 /B01-1/.

D.5.2. Data and parameters monitored

Means of verification	Document Review, Interview
Findings	--
Conclusion	The verification team confirms that the data and parameters monitored are in compliance with the registered POA-DD/VPA-DDS /B04/ and the monitoring plan. It is confirmed that the verification team assessed the data / information flow from the point of monitoring to emission reduction calculation and found no gap in the same. Please refer to the Annex 2 for assessment of each parameter

D.5.3. Implementation of sampling plan

Means of verification	Document Review, Interview
Findings	--
Conclusion	According to the standard for sampling and survey /B05/ and related guidelines /B05/ the sampling plan was determined at the time of project registration and applied during the monitoring. Sampling method: Simple random sampling method is adopted as the target population is homogeneous. The sampling frame is homogenous within itself, with respect to service level, established ex-ante baseline and user characteristics. The sample size is determined by the requirement to achieve 90/10 precision, in line with the methodology for annual survey for Habit Surveys and Biennial surveys for KPTs. The sample size calculated for habit surveys is 102 based on a confidence interval/ precision level of 90/10. The precision levels were achieved adequately as 100% of respondents were using the stove. The sample size was done according to the TPDDTEC Version 3.1/B02/, here it states that for a group size > 1000 a minimum sample size of 100 is needed for such a survey. The habit survey was carried out for 102 households to account for the non-responses and is acceptable to the verification team. The sample size calculated for KPT surveys based on a confidence interval/ precision level of 90/10 is 45. Oversampling is conducted and total 51 KPTs were conducted. The KPT calculations are done appropriately. The calculation of exclusion of outliers are provided in the "pKPT" tab of the ER sheet /02/ which is found to be consistent with the baseline KPT ("bKPT" tab of the ER sheet /02/). This led to a precision of 9.43% being achieved which falls within the 90/10 precision. The calculated sample was also checked during the previous monitoring period (MP1). The Usage Rate used by the PP for the VPA is 90% based on the Good Practice.

D.6. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Document Review, Interview
Findings	-
Conclusion	The moisture meters (Ryobi MM-210 2 in 1 moisture testers (5-50%/±2%)) and scales (ACCUD 75kg x 10g (0.01kg resolution)) are used in the KPT surveys of which the invoices are provided by the PP named "7529" /17-1/, dated 29/08/2022, "12173_Cicada_Moisture_Meters_20230621" /17-2/, dated 21/06/2023, "Stove scales receipt" /17-3/ and "Stove scales receipt 1" /17-4/ both dated 14/05/2023. The manufacturer specification provided for the products /18/ and the invoices /17/ are reviewed and it confirms that the devices used in the KPT surveys are newly purchased.

D.7. Assessment of data and calculation of emission reductions or net removals

D.7.1. Calculation of baseline value of each SDG Impacts

Means of verification	Document Review, Interview
Findings	--

Conclusion	The Baseline SDG Impacts are calculated as: **SDG 1: No Poverty** $BSA_{Baseline}$ Number of ICS distributed in baseline = 0 $HHS_{Baseline}$ % HH reporting money saving due to reduced fuel consumption in baseline = 0 **SDG 3: Good Health and Well Being** $SPM_{HH,Baseline}$ % HH reporting reduction in smoke/PM emissions while cooking on improved stove in baseline = 0 **SDG 5: Gender Equality** $HHTS_{Baseline}$ % HH reporting time saving from fuel collection due to reduced fuel consumption in baseline = 0 **SDG 7: Affordable and Clean Energy** $ACS_{Baseline}$ Access to affordable and clean energy (Number of operating ICS units under Baseline) = 0 **SDG 8: Decent Work and Economic Growth** $QE\ IG_{Baseline}$ Quantitative Employment and income generation (Number of person (male and female) hired under Baseline) = 0 **SDG 12: Responsible Consumption and Production** $B_{b,y,i}$ Fuel consumption for fuel type *i* used in baseline b in year y in tonnes, from baseline KPTs = 5.488t (KPT value retrieved from Baseline KPT's) **SDG 13: Climate Action** $BE_{b,y}$ Baseline emissions for baseline scenario b in year y (tCO_2e/yr) = 638,073 $BE_{b,y} = \sum_{b,p} N_{p,y} * U_{p,y} * (ER_{b,p,y,CO2} + ER_{b,p,y,nonCO2}) - \sum LE_{p,y}$ Where: $\sum_{b,p}$ Sum over all relevant (baseline b) couples = 85,605 ICS $N_{p,y}$ Cumulative number of project technology-days included in the sales/distribution database for project scenario p against baseline scenario b in year y = 85,605 * Total Technology days = 23,664,636 days $U_{p,y}$ Cumulative usage rate for technologies in baseline scenario p in year y, = 90% $ER_{b,p,y,CO2}$ Specific CO_2 emission savings for an individual technology of Baseline b in year y, in tCO_2/day as derived from the statistical analysis of the data collected from the field tests = 8.2057 t per annum $ER_{b,p,y,nonCO2}$ Specific non-CO_2 emission savings for an individual technology of Baseline b in year y, in tCO_2/day as derived from the statistical analysis of the data collected from the field tests = 2.7293 t per annum $ER_{b,p,y,CO2} = \sum_i \{ f_{NRB,b,i,y} * B_{b,y,i} * NCV_{b,i} * EF_{b,i,CO2} \}$

	Where: $f_{NRB,b,i,y}$ Fraction of woody biomass used in year y for fuel type *i* that can be established as non-renewable biomass (NRB) = 0.89 $B_{b,y,i}$ Fuel consumption for fuel type *i* used in baseline b in year y in tonnes, from baseline KPTs = 5.488t $NCV_{b,i}$ Net calorific value of the fuel type *i* used in baseline b (TJ/tonnes) = 0.015 $EF_{b,i,CO2}$ CO_2 emission factor of the fuel type *i* used in the baseline = (112 tCO_2/TJ*0.015 TJ/t) = 1.68 tCO_2/tonne of wood *i* Fuel Type $ER_{b,p,y,nonCO2}$ = $\sum_i$ { $B_{b,y,i}$* $NCV_{b,i}$ * $EF_{b,i,nonCO2}$} – $\sum_i$ { $B_{p,y,i}$* $NCV_{p,i}$ * $EF_{p,i,nonCO2}$} Where: $EF_{b,i,nonCO2}$ non-CO_2 emission factor of the fuel type *i* used in the baseline = (34.27 (CH_4) + 2.98 (N_2O) tCO_2/TJ) * 0.015 TJ/t = 0.5588 tCO_2/tonne of wood CCIPL confirms that the calculation of baseline emissions have been carried out in accordance with the formulae and methods described in the registered PDD and the applied methodology.

D.7.2. Calculation of project value of each SDG Impacts

Means of verification	Document Review, Interview
Findings	--
Conclusion	The SDG Impacts in project scenario are calculated as: **SDG 1: No Poverty** Net Benefit (SDG 1) = $BSA_{Project}$ – $BSA_{Baseline}$ = 85,605 Where: $BSA_{Baseline}$ Number of ICS distributed in baseline = 0 $BSA_{Project}$ Number of ICS distributed in Project = 85,605 Net Benefit (SDG 1) = HHSProject – HHSBaseline = 74% Where: $HHS_{Baseline}$ % HH reporting money saving due to reduced fuel consumption in baseline = 0 $HHS_{Project}$ % HH reporting money saving due to reduced fuel consumption in project = 74% Average fuel savings costs were calculated at 91.76 USD per annum, versus the 320.10 USD expected in the baseline calculation. For the respondents who indicated their financial savings in Rands a conversion rate of 15.93 Rand to 1 USD was used. **SDG 3: Good Health and Well Being** Net Benefit (SDG 3) = $SPM_{HH,Project}$ – $SPM_{HH,Baseline}$ = 98%

Where:

$SPM_{HH,Baseline}$ % HH reporting reduction in smoke/PM emissions while cooking on improved stove in baseline
= 0

$SPM_{HH,Project}$ % HH reporting reduction in smoke/PM emissions while cooking on improved stove in project
= 98%

SDG 5: Gender Equality

Net Benefit (SDG 5) = $HHTS_{Project} – HHTS_{Baseline}$
= 94%

Where:

$HHTS_{Baseline}$ % HH reporting time saving from fuel collection due to reduced fuel consumption in baseline
= 0

$HHTS_{Project}$ % HH reporting time saving from fuel collection due to reduced fuel consumption in project
= 96%

SDG 7: Affordable and Clean Energy

Net Benefit (SDG 7) = $ACS_{Project}$ - $ACS_{Baseline}$
= 85,605

Where:

$ACS_{Baseline}$ Access to affordable and clean energy (Number of operating ICS units under Baseline)
= 0

$ACS_{Project}$ Access to affordable and clean energy (Number of operating ICS units under Project)
= 85,605

SDG 8: Decent Work and Economic Growth

Net Benefit (SDG 8) = $QE\ IG_{Project}$ - $QE\ IG_{Baseline}$
= 30

Where:

$QE\ IG_{Baseline}$ Quantitative Employment and income generation (Number of persons hired under Baseline)
= 0

$QE\ IG_{Project}$ Quantitative Employment and income generation (Number of persons hired under Project)
= 30

SDG 12: Responsible Consumption and Production

$B_{y,savings} = B_{b,y,i} – B_{p,y,i}$

Where:

$B_{y,savings}$ Reduction in domestic fuel consumption (tonnes/year)
= 4.2929 t

$B_{b,y,i}$ Fuel consumption for fuel type *i* used in baseline b in year y in tonnes, from baseline KPTs
= 5.488 t

$B_{p,y,i}$ Fuel consumption for fuel type *i* used in project p in year y in tonnes, as derived from the statistical analysis of the data collected from the field tests
= 1.1951 t

SDG 13: Climate Action

For a complete overview of the ex-ante and ex-post CO_2 equivalent emissions reductions calculations, please refer to the VPA Emissions

Reductions Calculation Sheet. GHG reductions achieved by the VPA are calculated as follows:

$ER_y = \sum BE_{b,y} - \sum PE_{p,y} - \sum LE_{p,y}$

Where:

ER_y Emission reduction for total project activity in year y (tCO_2e/yr)
= 499,119 (Round down)

$BE_{b,y}$ Baseline emissions for baseline scenario b in year y (tCO_2e/yr)
= 638,073

$PE_{p,y}$ Project emissions for project scenario p in year y (tCO_2e/yr)
= 138,953

$LE_{p,y}$ Leakage for project scenario p in year y (tCO_2e/yr)
= 0

As per the methodology the governing equation for the emission reduction calculations is as follows with ($\sum BE_{b,y} - \sum PE_{p,y}$) is directly merged in to the following equation:

$ER_y = \sum_{b,p} N_{p,y} * U_{p,y} * (ER_{b,p,y,CO2} + ER_{b,p,y,nonCO2})) - \sum LE_{p,y}$

Where:

$\sum_{b,p}$ Sum over all relevant (baseline b/project p) couples
= 85,605 ICS

$N_{p,y}$ Cumulative number of project technology-days included in the sales/distribution database for project scenario p against baseline scenario b in year y
= 85,605* Total Technology days
= 23,664,636 days

$U_{p,y}$ Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction)
= 90%

$ER_{b,p,y,CO2}$ Specific CO_2 emission savings for an individual technology of Project against an individual technology of Baseline b in year y, in tCO_2/day as derived from the statistical analysis of the data collected from the field tests
= 6.4187t per annum (see below)
= 0.01759 tCO_2e/day

$ER_{b,p,y,nonCO2}$ Specific non-CO_2 emission savings for an individual technology of Project against an individual technology of Baseline b in year y, in tCO_2/day as derived from the statistical analysis of the data collected from the field tests
= 2.1350t per annum (see below)
= 0.00585 tCO_2e/day

$LE_{p,y}$ Leakage for project scenario p in year y (See Section E.3)
= 0%
= 0 tCO_2e/yr

$ER_{b,p,y,CO2} = \sum_i \{f_{NRB,b,i,y} * B_{b,y,i} * NCV_{b,i} * EF_{b,i,CO2}\} - \sum_i \{ f_{NRB,b,i,y} * B_{p,y,i} * NCV_{p,i} * EF_{p,i,CO2}\}$

Where:

$f_{NRB,b,i,y}$ Fraction of woody biomass used in year y for fuel type *i* that can be established as non-renewable biomass (NRB)
= 0.89

	$B_{b,y,i}$ Fuel consumption for fuel type *i* used in baseline b in year y in tonnes, from baseline KPTs = 5.4880t $B_{p,y,i}$ Fuel consumption for fuel type *i* used in project p in year y in tonnes, as derived from the statistical analysis of the data collected from the field tests = 1.1951t $NCV_{b,i}$ (TJ/tonnes) Net calorific value of the fuel type *i* used in baseline b = 0.015 $NCV_{p,i}$ (TJ/tonnes) Net calorific value of the fuel type *i* used in project p = 0.015 $EF_{b,i,CO2}$ CO_2 emission factor of the fuel type *i* used in the baseline = (112 tCO_2/TJ * 0.015 TJ/t) = 1.68 tCO_2/tonne of wood $EF_{p,i,CO2}$ CO_2 emission factor of the fuel type *i* used in the project = (112 tCO_2/TJ * 0.015 TJ/t) = 1.68 tCO_2/tonne of wood *i* Fuel Type $ER_{b,p,y,nonCO2} = \sum_i \{ B_{b,y,i} * NCV_{b,i} * EF_{b,i,nonCO2} \} - \sum_i \{ B_{p,y,i} * NCV_{p,i} * EF_{p,i,nonCO2} \}$ Where: $EF_{b,i,nonCO2}$ non-CO_2 emission factor of the fuel type *i* used in the baseline = (34.27 (CH_4) + 2.98 (N_2O) tCO_2/TJ) * 0.015 TJ/t = 0.5588 tCO_2/tonne of wood $EF_{p,i,nonCO2}$ non-CO_2 emission factor of the fuel type *i* used in the project = (34.27 (CH_4) + 2.98 (N_2O) tCO_2/TJ) * 0.015 TJ/t = 0.5588 tCO_2/tonne of wood LEy Leakage for project scenario p in year y = 0% CCIPL confirms that the calculation of project emissions have been carried out in accordance with the formulae and methods described in the registered PDD and the applied methodology.

D.7.3. Calculation of leakage GHG emissions

Means of verification	Document Review, Interview
Findings	--
Conclusion	A justification has been provided for each condition as per the methodology TPDDTEC, version 3.1/B02/. There are no leakages applicable for the reported monitoring period.

D.7.4. Summary calculation of SDG Impacts

Means of verification	Document Review, Interview
Findings	-
Conclusion	

SDG No.	SDG Impact	Baseline	Project	Net benefit

13	Tonnes CO^2 equivalent emissions	638,073	138,953	499,119
1	Number of ICS distributed	0	85,605	85,605
1	Financial savings	0	91.76	91.76
3	% HH reported reduction in smoke/PM Emissions while cooking on ICS	0	98%	98%
5	% HH reporting time saving from fuel collection due to reduced consumption	0	94%	96%
7	Access to affordable and clean energy (number of ICS distributed)	0	85,605	85,605
8	Quantitative employment and income generation (Number of persons hired)	0	30	30
12	Wood fuel savings while cooking on project ICS in tonnes per annum	0	4.2929	4.2929

The data presented in the monitoring report /01/ and emission reduction worksheet /02/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidences were presented and verified by the CCIPL for the reported emission reductions as listed above.

D.7.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered POA-DD/VPA-DDS

Means of verification	Document Review, Interview
Findings	--
Conclusion	The ex-ante estimate value of the emission reductions for the monitoring period as per the registered POA-DD/VPA-DDS /B04/ is 444,183 (VPA 1) and 290,377 (VPA 3) and the actual emission reductions achieved for the monitoring period is 378,347 (VPA 1) and 503,677 (VPA 3)

SDG	Values estimated in ex ante calculation of approved POA-DD/VPA-DDS	Actual values achieved during this monitoring period
13	584,385 tCO_2e	499,119 (tCO_2e)
1	25,000 ICS distributed 340.10 USD per annum	85,605 ICS distributed 91.76 USD per annum
3	100%	98%
5	100%	94%
7	25,000 ICS distributed	85,605 ICS distributed
8	25 (Number of persons hired)	30 (Number of persons hired)/14/

	12	4.17 (tonnes/year)	4.2929 (tonnes/year)

The emission reduction calculations provided in the spreadsheet /02/ have been verified to be correct and in line with the registered POA-DD/VPA-DDS /B04/.

D.7.6. Remarks on difference from estimated value in registered POA-DD/VPA-DDS

Means of verification	Document Review, Interview
Findings	--
Conclusion	The ex-ante estimate value of the emission reductions for the monitoring period as per the registered POA-DD/VPA-DDS /B04/ is 584,385 tCO_2e/yr (per ICS 6.8265) and the actual emission reductions achieved for the monitoring period is 499,119 tCO_2e/yr (per ICS 5.8305). For SDG 13, since actual emission reduction is lower than the estimated value and hence it is acceptable to the verification team. The monitoring report /01/ provides reason for decrease in the actual emission reduction and the same was confirmed by the verification team by interviewing the representatives of PP and by reviewing the actual implementation status of the project. For other SDG parameters, PP has provided justification in the Monitoring report and assessment of the same is provided below: • SDG 1: The actual value exceeds the estimated value, which is due to the increased number of project ICS than estimated. • SDG 3: The actual value is less than the estimated value, which is deemed appropriate and thus acceptable to the DOE. • SDG 5: The actual value is less than the estimated value, which is deemed appropriate and thus acceptable to the DOE. • SDG 7: The actual value exceeds the estimated value, which is due to the increased number of project ICS than estimated. • SDG 8: The actual value exceeds the estimated value, of which the evidence is also provided with the supporting document, is deemed appropriate and thus acceptable to the DOE/14/. • SDG 12: The actual value exceeds the estimated value. The estimated value were based on the default thermal efficiency while the actual value were based on the actual KPT conducted. • SDG 13: The actual value is less than the estimated value, which is deemed appropriate and thus acceptable to the DOE.

D.8. Assessment of Safeguard Reporting

Means of verification	Document Review, Interview
Findings	--
Conclusion	

Risk identified in PDD	Actions to Mitigate	Mitigated? (yes/no)	DOE Assessment
Principle 6.1 Labour Rights: The Project Developer shall ensure that all employment is in compliance with national labour occupational health	Legal employment contracts for project staff in Zimbabwe are provided to the DOE as	Yes	As per the employment contract /14/ reviewed, the contract with the individuals are in as per the OHS policy of

	and safety laws and with the principles and standards embodied in the ILO fundamental conventions	evidence. Stove manufacturers will be required to show suitable, up-to-date OHS policy.		the country.
	Principle 6.1 Labour Rights: 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.	Legal employment contracts for project staff in Zimbabwe are provided to the DOE as evidence.	Yes	As per the assessment of the employment contract /14/ provided by the PP all the information regarding the working agreements with all individuals are provided.

SECTION E. Internal quality control

>>

The verification report has passed a technical review before being submitted to the Gold Standard. The technical review is performed by a technical reviewer qualified in accordance with CCIPL's qualification scheme for validation and verification.

SECTION F. Verification/Certification opinion

>>

Carbon Check (India) Private Ltd. (CCIPL) has performed the 2nd periodic verification of the registered GS Project Activity "TASC Clean Cooking PoA- VPA 2 (Zimbabwe)".

The verification team assigned by the DOE concludes that the project activity as described in the POA-DD/VPA-DDS /B04/ and the Monitoring report /01-c/, meets all relevant requirements of the Gold Standard. The verification has been conducted in-line with the GS4GG requirements project activities.

Verification methodology and process

The Verification team confirms the contractual relationship signed between the DOE, Carbon Check (India) Private Ltd. and the Project Participant. The team assigned to the verification meets the CCIPL's internal procedures including the UNFCCC/GS requirements for the team composition and competence. The verification team has conducted a thorough contract review as per UNFCCC and CCIPL's procedures and requirements.

The verification has been performed as per the requirements described in the GS4GG and constitutes the review and completion of the following steps:

- Reviewing the PoA-DD/VPA-DDS /B04/, including the monitoring plan and the corresponding validation report /B04/;
- Desk review of the MR /01/ and other relevant documents including documents related to the project activities in emission reductions;
- Review of the applied monitoring methodology Technologies and Practices to Displace Decentralized Energy Consumption (version 3.1) /B02/;
- On-site inspection (18/09/2023 to 19/09/2023)
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

The project activity was correctly implemented according to selected monitoring methodology, monitoring plan and the registered POA-DD/VPA-DDS. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the document review and interviews, the verification team confirms that the project activity has resulted in the 499,119 (tCO_2e) emission reductions during the reported monitoring period.

Vintage (VPA 2)	**ER (tCO_2e)**
23/09/2022 – 31/12/2022	136,613 tCO_2e
01/01/2023 – 22/07/2023	362,506 tCO_2e
Total for the monitoring period	**499,119 tCO_2e**

This statement covers verification period from 23/09/2022 – 22/07/2023 (inclusive).

The DOE has raised 10 clarifications and 07 corrective action requests, all of which are satisfactorily closed.

The DOE considers necessary to give reasonable assurance that reported GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology and the monitoring plan contained in the registered PoA-DD/VPA-DDS are fairly stated.

The DOE, hereby certifies that the project activity, achieved emission reductions by sources of GHG equal to 499,119 tCO_2e VPA 2 equivalent and all monitoring requirements have been fulfilled and is substantiated by an audit trail that contains evidence and records.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CA	Corrective Action/ Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CL	Clarification Request
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entities
DVR	Draft Verification Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final Validation Report
GHG	Greenhouse gas(es)
GS	Gold Standard
GWh	Giga Watt Hour
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage Emissions
MP	Monitoring Period
MR	Monitoring Report
MWh	Mega Watt Hour
OSV	On Site Visit
PE	Project Emissions
PP(s)	Project Participant(s)
PRC	Post registration change
QC/QA	Quality Control/ Quality Assurance
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Aparna Choudhary

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India			

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date
5th December 2023

Expiry Date
31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022[1]	Annual revision
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Kiran KV

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India			

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☒ TA 14.1	☒ TA 15.1	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022	Initial Adoption
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Mandishona Liberty

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☐ Validator	☐ Verifier	☐ Team Leader	☐ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Zimbabwe		

in the following Technical Areas:

☐ TA 1.1	☐ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
03rd May 2023

Expiry Date
02nd May 2024

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Anubhav Dimri

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☒ Plastic Waste Expert
☒ CCB Expert	☐ Legal Expert	☒ Financial Expert	☒ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	

☒ Local Expert for India, RSA and Spanish speaking countries

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☒ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☒ TA 14.1	☒ TA 15.1	☒ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022[1]	Annual revision
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Appendix 3. Documents reviewed or referenced

S. No.	Document
/01/	a. Monitoring Report (Version 1.0 dated 23/08/2023) b. Monitoring Report (Version 1.6 dated 19/02/2024 c. Monitoring Report (Version 1.9 dated 21/02/2024)
/02/	Emission reductions sheet (Corresponding to /01-c/)
/03/	VPA distribution records
/04/	Sample survey selection sheet
/05/	Training Manual
/06/	Kuniokoa Model wood fuel cookstove product leaflet / stove manual
/07/	Lab report from the Kenya Industrial Research and Development (KIRDI) for the thermal efficiency testing of cookstoves dated 19/11/2017
/08/	Proof of Carbon Wavier certification dated 12/05/2022
/09/	Evidence for the funding of the project – Sample agreements with the end user demonstrating that stoves are free of cost.
/10/	KPT survey records
/11/	Usage Monitoring Survey (Habit Surveys)
/12/	Burn EHS policy
/13/	stove sales receipt sample
/14/	Employment contracts
/15/	Verification check sheet
/16/	Exclusiveness of VPA declaration
/17/	Moisture meter invoice and scale invoices 1. 7529 2. 12173_Cicada_Moisture_Meters_20230621 3. Stove scales receipt 4. Stove scales receipt 1
/18/	Manufacturer specification for monitoring equipment mentioned in /17/

Background Documents

Ref no.	Reference Document
/B01/	1. Validation and Verification Standard for PoAs, version 03.0 2. Project Standard for PoAs, version 03.0 3. Project Cycle Procedure for PoAs, version 03.0
/B02/	Technologies and Practices to Displace Decentralized Energy Consumption (version 3.1)
/B03/	1. Gold Standard Principles and Requirements version 1.2, dated 24/10/2019 2. Gold Standard Programme of Activity Requirements version 1.2, dated 24/10/2019 3. GS Validation & Verification Body Requirements version 2.0, dated 14/01/2021 4. GS Validation and Verification Standard version 1.0, dated 06/03/2023 5. Community Services Activity Requirements (version 1.1) under GS4GG https://globalgoals.goldstandard.org/200-gs4gg-community-services-activity-requirements/
/B04/	Registered VPA-DD, Version 1.7 dated 13/12/2022 and Corresponding validation report Registered PoA-DD, Version 05, dated 03/02/2022 and Corresponding Validation Report
/B05/	Sampling and Survey a) CDM Sampling Standard, version 09.0 b) Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0.
/B06/	Site Visit and Remote Audit Requirements and Procedures, version 1.0 dated 17/11/2021
/B07/	REQUIREMENTS AND GUIDELINES: USAGE RATE MONITORING, v2.0, dated: 27/10/2020

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

Table 1. FARs from this verification

FAR ID	01	Section no.		Date: 20/02/2024
Description of FAR				
All future verifications, DOE shall describe clearly how they have assessed and the applied method of verification and type of interview questions for monitored SDGs to reach the conclusion that meet the compliance of the requirements of the parameter.				
PP response				**Date:**
Documentation provided by the CME				
DOE assessment				**Date:**

Table 2. CARs from this verification

CAR ID	01	Section no.	KPI	Date: 24/11/2023
Description of CAR				
1. PP is requested to add to list all the validated VPAs of this POA in the POA information table under the KPI section in "Name and GS ID of fully Validated CPA/VPAs (i.e. non compliance check)" 2. PP is requested to provide the date of last annual report in the KPI section				
PP response				**Date:** 29/11/2023
1. In addition to GS11551 VPAs with the following GS IDs have been added to the table GS11145, GS11596, GS11604 and GS11901. 2. The project only completed design review and inclusion in 2023, thus no annual report has been submitted prior to this verification.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
1. PP has added the list of all validated VPAs in the PoA info table. 2. Justification is provided by the PP regarding the date of the last annual report. Hence, CAR01 is closed.				

CAR ID	02	Section no.	D.2	Date: 24/11/2023

Description of CAR				
In the section D.2 for the parameter $B_{p,y,l}$, in the QA/QC procedures section it is mentioned that "*The equipment used for testing, if any either will be externally calibrated or newly purchased on an annual basis so measurements are done with the necessary guarantees.* *Ryobi MM-210 2 in 1 moisture testers (5-50%/±2%) were used to determine the moisture content of the wood and ACCUD 75kg x 10g (0.01kg resolution) scales were used to record the weight of the wood.* *As this is the first monitoring period of the VPA, this equipment was newly purchased for the monitoring exercises so not requiring calibration*." PP is requested to provide invoice of the equipment purchased. PP is requested to provide information on how moisture content is calculated in the KPT survey.				
PP response				**Date: 29/11/**2023
1. Invoices for equipment purchased has been shared with the DOE labelled as "7529", "Stoves scales receipt" and "stoves x 1 receipt scale". 2. The moisture content of the wood used during the KPT tests were measured as per the guidance provided in the KPT version 4.0 protocol using Ryobi moisture meters. Moisture content is measured in dry basis and to get the wet basis value the following equation is applied: $MC_{wet} = \frac{MC_{dry}}{1 + MC_{dry}}$ This equation was extracted from the KPT protocol v3.0 spreadsheet and can be used to calculate the wet-basis moisture content (MC_{wet}) if the dry-basis moisture content (MC_{dry}) is known.				
Documentation provided by PP				
"7529" – Moisture meter order "Stoves scales receipt" - Scales "stoves x 1 receipt scale" - Scales				
DOE assessment				**Date:** 12/01/2024
1. The start date of the monitoring period is 23/09/2022 and the as per the provided invoice of the monitoring equipment the date of invoice is 29/08/2022. The KPT test were conducted from 16/05/2023 to 22/07/2023. This proves that the measurement equipment was purchased within less than one year from the date of commencement of KPT test. 2. PP has provided appropriate reference moisture content calculations. Hence CAR02 is closed.				

CAR ID	03	**Section no.**	D.2	**Date:** 24/11/2023
Description of CL				
As per the calculation provided in the habitat survey sheet, the value for SDG 5 is 94%, while the value provided in section E.2, E.4, and E.5 of the MR is 95%. PP is requested to correct the inconsistency The description of parameter provided in MR is found to be inconsistent with the description provided in VPA DD. PP is requested to correct the inconsistency				
PP response				**Date:** 29/11/2023
1. The value has been corrected to 94% in all sections of the MR. 2. The parameter description for SDG 5 in section D1 has been amended to be consistent with the description in section B.7.1. of the VPA-DD.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
1. The value for SDG 5 is updated throughout the MR. 2. Parameter description for SDG 5 is made consistent with the VPA-DD				

Hence, CAR03 is closed.

CAR ID	04	Section no.	D.2	Date: 24/11/2023
Description of CL				
The QA/QC procedure of parameter QE IG is not provided in section D.2 of MR as given in the VPA DD. PP is requested to provide the same.				
PP response				**Date:** 29/11/2023
1. The following language has been added to MR "Legal employment contracts for project staff in Zimbabwe are provided to the DOE as evidence. Stove manufacturers will be required to show suitable, up-to-date OHS policy."				
Documentation provided by PP				
Employment contracts BURN OHS policy titled "BURN EHS Policy – 24.03.2022"				
DOE assessment				**Date:** 12/01/2024
QA/QC procedure of parameter QE IG is updated in the section D.2 of the MR. Hence, CAR04 is closed.				

CAR ID	05	Section no.	D.3	Date: 24/11/2023
Description of CL				
The value of parameter Npy, BSA / HHS and AACSHH provided in section D.3 of MR is 48,300 while in the previous MR, version 1.8 dated 28/03/2023, the value is found to be 48,501. PP is requested to correct the inconsistency				
PP response				**Date:** 29/11/2023
The value was erroneously stated in section D.3 of the MR and has been updated accordingly to 48,501.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
The value of Npy, BSA / HHS has been rectified in the section D.3 of the MR. However, the value of AACSHH remains unchanged and inconsistent with previous MR. PP is requested to rectify he same. Hence, CAR05 is open.				
PP response				**Date:** 15/01/2024
The value for AACS for the previous MP has been corrected to 48,501.				
DOE assessment				**Date:** 16/01/2024
The value for AACH for the previous MP has been updated and now is inline with the previous MPs MR. Hence, CAR05 is closed.				

CAR ID	06	Section no.	D.4	Date: 24/11/2023
Description of CAR				
As per GS REQUIREMENTS AND GUIDELINES: USAGE RATE MONITORING version 2.0, para 2.1, PP is requested to demonstrate the mandatory and good practice usage rate monitoring requirements in section D.4 of MR. The requirements provided in section 2.2 and 2.3 of the document is to be followed and documented in MR. PP is requested to provide required evidences to DOE				
PP response				**Date:** 07/12/2023
Language has been added in section D.4 of the MR. Furthermore, all evidences required are provided in the shared folder labelled "Monitoring".				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
PP has provided required information on mandatory monitoring requirements and good practice monitoring in the section D.4 of the updated MR. Hence, CAR06 is closed.				

CAR ID	07	Section no.	E.1, E.2	Date: 24/11/2023
Description of CL				
1. PP is requested to provide the SDG calculations in the ER sheet which can be verified from the habitat survey. 2. In section E.1, under SDG 13 calculation, the value of ∑b,p provided is 78,780, while for Npy, it is given as 85,605. PP is requested to clarify the inconsistency				
PP response				**Date:** 07/12/2023
1. SDG calculations for SDG 3 and 5 was added in the "SDG Calculations" tab of the ER calculation sheet. 2. The value was incorrectly stated in section E.1. of the MR, it has been amended to 85,605.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
1. SDG 3 and SDG 5 calculation is added in the ER sheet. 2. Value of ∑b,p is updated in the section E.1 of the MR Hence, CAR07 is closed				

Table 3. CL from this verification

CL ID	01	Section no.	B.1	Date: 24/11/2023
Description of CL				
In section B.1 the duration of the monitoring period is mentioned as "23/09/2022 to 11/08/2023" in the KPI table the duration of the monitoring period is given as "23/09/2022 – 15/08/2023 (inclusive)". PP is requested to clarify the duration of the monitoring period of this report.				
PP response				**Date:** 29/11/2023
The date has been corrected in section B.1. to be consistent with the rest of the MR and the ER calculation sheet.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
PP has updated the monitoring period in the section B.1 of the MR, made consistent with the KPI table. Hence, CL01 is closed.				

CL ID	02	Section no.	C	Date: 24/11/2023
Description of CL				
Dates of the Habit survey conducted in the table of section B.1 is given as "15/05/2023 - 11/08/2023" and in the details of Habit survey in the section C is given as "15th May – 8th August 2023". PP is requested to clarify the date of conduction of the Habit survey.				
PP response				**Date: 29/11/2023**
The last habit survey was conducted on 11/08/2023, the date in section C was incorrect and has been corrected to the 11th August 2023.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
The date has been corrected in the section C of the MR. PP is requested to write the dates in DD/MM/YYYY format throughout the MR as per the GS monitoring report template guideline. Hence, CL02 remains open.				
PP response				**Date:** 15/01/2024

All dates in the MR has been updated to format DD/MM/YYYY.
DOE assessment **Date:** 16/01/2024
In the KPI table for “Completion date of the monitoring report” the date is mentioned in the “MM/DD/YYYY” format, PP is requested to update the format of date in the KPI table to DD/MM/YYYY. Other sections are update to the DD/MM/YYYY format. Hence, CL02 remains open.
PP response **Date:** 01/17/2024
The completion date of the MR has been changed to the format DD/MM/YYYY.
DOE Assessment **Date:** 22/01/2024
The completion date of the Monitoring report is updated to be in DD/MM/YYYY format. Hence, CL02 is closed.

CL ID	03	**Section no.**	D.1	**Date:** 24/11/2023
Description of CL				
In section D.1 of the MR, the value for $B_{b,y}$ and EFb,i,nonCO2 is not consistent with the VPA-DD provided. Justification for the inconsistency is requested to be added in section B.2.2 of MR				
PP response				**Date:** 29/11/2023
As per FAR 3 raised during the validation “CME shall conduct baseline KPT to determine the value of By before the first verification”. This FAR was addressed during the first verification and as a result the value for Bb,y has consequently changed in the MR. Thus, the value in the MR is the actual value as determined through baseline KPTs. A justification has been added in section B.2.2. The value for $EF_{b,I,nonCO2}$ in the VPA-DD was rounded up to 0.56 tCO_2/t_{fuel}, it was deemed more conservative to use the non-rounded up value of 0.5588 tCO_2/t_{fuel}.Thus the value has been amended to 0.5588.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
PP has provided the justification for the change in values for $B_{b,y}$ in the section B.2.2 of the updated MR, for the $EF_{b,i,nonCO2}$ the values used in the MR is more conservative and hence accepted by the verification team. Hence, CL03 is closed.				

CL ID	04	**Section no.**	D.1	**Date:** 24/11/2023
Description of CL				
PP is requested to clarify the values of ex-ante parameters: 1. In section D.1 “Data and parameters fixed ex ante or at renewal of crediting period” the value of parameter $B_{b,y}$ in the MR is mentioned as “5.4880 tonnes”. In the VPA-DD the value of $B_{b,y}$ is mentioned as “6.3056 tonnes”. 2. The value of $EF_{b,I,nonCO2}$ and $EF_{b,I,CO2}$ is given as “0.5588 tCO2/tfuel” in the D.1 of the MR, in the VPA-DDthe value of $EF_{b,I,nonCO2}$ and $EF_{b,I,CO2}$ is given as “0.56 tCO2/tfuel” PP is requested to clarify this discrepancy. 3. Justification for the inconsistency is requested to be added in section B.2.2 of MR. 4. The monitoring frequency of By,savings provided in section D.2 of MR is found to be inconsistent with VPA DD. PP is requested to correct the same.				
PP response				**Date:** 29/11/2023
1. Please see responses for CL ID 03 2. Please see responses for CL ID 03				

3. Justifications have been added in section B2.2 of the MR.
4. The language has been amended to be in line with the VPA-DD (i.e. “Annually / biennially)

Documentation provided by PP

DOE assessment **Date:** 12/01/2024

1. Refer DOE assessment for CL03

2. Refer DOE assessment for CL03

3. PP has updated the section B.2.2 of the MR and provided the justification for inconsistency in the value of the parameter $B_{b,y}$ is provided.

4. PP has updated the monitoring frequency for the parameter $B_{y,savings}$ in the section D.2 of the updated MR and it is consistent with the VPA-DD

Hence, CL04 is closed.

CL ID	05	**Section no.**	D.2	**Date:** 24/11/2023

Description of CL

PP is requested to clarify the Value of money saved per month as in MR it is mentioned as 10.54 USD and in the Habit survey sheet it is mentioned as 7.65 USD.

PP response **Date:** 29/11/2023

Value has been amended to 7.60 as per the updated habit survey results.

Documentation provided by PP

DOE assessment **Date:** 12/01/2024

Value of money saved per month in the MR is now updated and is in line with the Habit survey sheet.

Hence, CL05 is closed.

CL ID	06	**Section no.**	D.4	**Date:** 24/11/2023

Description of CL

In section D.4 of MR, PP has mentioned that 120 samples were interviewed for habitat survey. However, in file "VPA_2_MP2_HabitSurvey", tab "data", the survey record of only 102 households are provided. PP is requested to provide a clarification on this.

In this section, PP has provided references to the habit survey sheet which is found to be misleading. PP is requested to provide the exact references.

PP response **Date:** 29/11/2023

1. The following clarifying statement has been added in section D.4. “*From the total selected number of samples, due to availability of beneficiaries, only 100 beneficiaries were sampled.”*
2. References to the habit survey has been amended to reflect the correct columns where to find the data.

Documentation provided by PP

DOE assessment **Date:** 12/01/2024

PP has updated the section D.4 of the MR to show 100 samples for habit survey, the number of samples are also as per the habit survey showing 100 entries.

PP has updated the reference to the habit survey and are now leading to the required column in the Habit survey sheet.

Hence, CL06 is closed.

CL ID	07	**Section no.**	E.1	**Date:** 24/11/2023

Description of CL

In section E.1 of MR,
PP has provided the equations
$ERb,p,y,CO2= \sum i \{ fNRB,b,i,y* Bb,y,i* NCVb,i *EFb,i,CO2\}$ and

ERb,p,y,nonCO2 = ∑i { Bb,y,i* NCVb,i * EFb,i,nonCO2} – ∑i { Bp,y,i* NCVp,i * EFp,i,nonCO2}
the parameter EFb,i,CO2 and EFb,i,nonCO2 is calculated through (112 tCO2/TJ*0.015 TJ/t) and (34.27 (CH4) + 2.98 (N2O) tCO2/TJ) * 0.015 TJ/t) respectively.
PP is requested to clarify the use of NVC twice in this equation. Also this calculation is not found in the ER sheet.

PP response	**Date:** 07/12/2023
As we are calculating the EF individually for CO2 and nonCO2 emissions we need to apply the net calorific value (NCV) separately for each emission factor. The NCV value is used to convert the EF value from tCO2/TJ to tCO2/t of wood. The calculation for the parameters can be found in the "Ex-Ante" tab, cells E10 to E14.	
Documentation provided by PP	
DOE assessment	**Date:** 12/01/2024
It has been observed that the calculation procedure has been added by PP in the ER sheet. Hence, CL07 is closed	

CL ID	08	**Section no.**	E.1	**Date:** 24/11/2023

Description of CL

n section E.1, PP has provided the calculation of baseline emission through the following equation "BEb,y = ∑b,pNp,y* Up,y* (ERb,p,y,CO2 + ERb,p,y,nonCO2))–∑ LEp,y ".
It has been observed that no such equation has been given in the VPA DD or methodology for the calculation of baseline emissions.

Whereas, in section E.2, PP has calculated the ER value through the following equation which combines the baseline and project emissions.
ERy = ∑ BEb,y– ∑ PEp,y–∑ LEp,y
ERy = ∑b,pNp,y* Up,y* (ERb,p,y,CO2 + ERb,p,y,nonCO2))–∑ LEp,y

ERb,p,y,CO2 = ∑i {fNRB,b,i,y* Bb,y,i* NCVb,i *EFb,i,CO2} – ∑i { fNRB,b,i,y* Bp,y,i* NCVp,i *EFp,i,CO2}

ERb,p,y,nonCO2= ∑i { Bb,y,i* NCVb,i * EFb,i,nonCO2} – ∑i { Bp,y,i* NCVp,i * EFp,i,nonCO2} .

The equation provided in section E.2 covers both baseline and project emissions, therefore PP is requested to clarify the relevance of adding a separate equation in section E.1 for baseline emission calculation.

PP is requested to clarify with reference on how the equation used in section E.1 and E.2 is in compliance with VPA DD and methodology.

Also it has been observed that the calculation procedure provided in MR is not consistent with the calculation provided in ER sheet. PP is also requested to maintain the calculation procedure between MR and ER sheet

PP response	**Date:** 07/12/2023
1. As project and baseline emissions are calculated using the same formula, we understand that it is not necessary to calculate the baseline emissions separately. However, we are required to calculate the baseline emissions and impacts and report on them in Section E.1 and E.4. Thus, the calculation thereof has been included in the MR. 2. The formula used to calculate ER in the MR has been used and verified before on 4 separate performance reviews and accepted as correct. Thus, the equation applied as per the VPA-DD is correct and it only differs in the order by which multiplication takes place and is therefore consistent with the methodology. 3. ER sheet has been amended to replicate what is in the MR.	
Documentation provided by PP	
DOE assessment	**Date:** 12/01/2024
It has been observed that the ER has been calculated using the equation 1 of applied methodology although PP has used a different approach to the equation. Justification provided by PP is deemed to be acceptable to DOE. Hence, CL08 is closed	

CL ID	09	Section no.	E.5.1	Date: 24/11/2023

Description of CL

In section E.5.1, for SDG 12, PP has mentioned that " Net, ex-post ERs are therefore lower than estimated in the VPA-DD. ". The Ex ante value is 4.17 and ex post value is 4.29. PP is therefore requested to justify the statement provided above.

PP response **Date:** 07/02/2023

By,savings (SDG 12) was calculated ex-ante and based on assumed project fuel use values in VPA-DD; ex-post savings are monitored using project field KPTs which has shown a higher level of fuel savings per ICS than expected in the baseline.

Documentation provided by PP

DOE assessment **Date:** 12/01/2024

PP has updated the section E.5.1 of the MR and to provide the justification for the increase in the value of the parameter $B_{y,savings}$ (SDG 12).

PP is requested to maintain consistency in the font as the provided statement is found to be in Bold compared the template. Also the heading E.6 is requested to be provided in a separate line.

Hence, CL09 is open.

PP response **Date:** 15/01/2024

The formatting of the statement referred to above has been corrected and Section E.6 heading has been provided in a separate line.

DOE assessment **Date:** 16/01/2024

The changes in the section E.5.1 and the heading of section E.6 are not visible in the MR v1.3.

Hence, CL09 remains open.

PP response **Date:** 17/01/2024

Formatting changes are visible and in track change mode. Please see below screengrab

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

Ex-ante values were based on the total number of days that the monitoring period lasts, assuming that all ICS were distributed on day 1. Whereas, monitored ICS were distributed progressively over the MP, meaning a lower number of technology days per ICS credited in the MP.

Due to the increased number of stoves distributed, more people were hired by the VPA Implementer than expected (30 vs. 25).

By,savings (SDG 12) was calculated ex-ante and based on assumed project fuel use values in VPA-DD; ex-post savings are monitored using project field KPTs which has shown a higher level of fuel savings per ICS than expected in the baseline.

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

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SDG 1 & 7: more stoves were distributed than expected as more investment than was envisaged in the VPA was obtained by the Project Participants.

SDG 8: more stoves were distributed meaning that the VPA Implementer hired more staff for distribution and monitoring than expected.

SDG 12: Ex-ante wood savings were estimated/calculated based on baseline fuel use values and the improved thermal efficiency of the project stove, the ex-post values were determined through KPT's by subtracting the actual project KPT value from the baseline KPT value and not estimated. This resulted in an increase of the SDG 12 impact observed.

DOE Assessment	**Date:** 22/01/2024
The changes in the section E.5.1 and the heading of E.6 are made. Hence,CL09 is closed.	

CL ID	10	**Section no.**	G.1	**Date:** 24/11/2023
Description of CL				
PP is requested to provide the evidence for all the stakeholder consultation feedbacks conducted and grievance mechanisms in place as provided in section G.1 of MR				
PP response				**Date:** 07/12/2023
There were no stakeholder grievances during this monitoring period, thus there is nothing that can go into this section. Furthermore, info on the stakeholder consultation feedback and responses were already covered and closed during the verification and performance review of MP1 for GS1155.				
Documentation provided by PP				
DOE assessment				**Date:** 12/01/2024
PP has done the LSC in the previous monitoring period, same has been cross checked with the previous MPs MR. Hence, CL10 is closed.				

Annex 1: Assessment of data and parameters fixed ex-ante at the time of validation

Relevant SDG Indicator	SDG 13, Climate action
Parameter	$B_{b,\,y}$
Data unit	Tonnes per household per annum
Default values used	5.4880 tonnes
Purpose of data	Calculation of the baseline scenario
Source of verification of the source	Third Party Reports

Relevant SDG Indicator	SDG 13, Climate action
Parameter	$EF_{b,i,CO2}$
Data unit	$tCO2/t_{fuel}$
Default values used	Fuelwood/ wood chips: 1.68 $tCO2/t_{fuel}$
Purpose of data	Calculation of baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.5 – Default emission factors for stationary combustion in the residential and agriculture/ forestry/ fishing/ fishing farms categories

Relevant SDG Indicator	SDG 13, Climate action
Parameter	$EF_{b,i,nonCO2}$
Data unit	$tCO2/t_{fuel}$
Default values used	Fuelwood/ wood chips: 0.5588 $tCO2/t_{fuel}$
Purpose of data	Calculation of baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.9 – Residential Source Emission Factors The value has changed from the ex-ante estimates as the revised values for the GWPs have been used for N_2O and CH_4.

Relevant SDG Indicator	SDG 13, Climate action
Parameter	$EF_{p,i,CO2}$
Data unit	$tCO2/t_{fuel}$
Default values used	Fuelwood/ wood chips: 1.68 $tCO2/t_{fuel}$
Purpose of data	Calculation of Baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.5 – Default emission factors for stationary combustion in the residential and agriculture/ forestry/ fishing/ fishing farms categories

Relevant SDG Indicator	SDG 13, Climate action

Parameter	$EF_{p,i,nonCO2}$
Data unit	$tCO2/t_{fuel}$
Default values used	Fuelwood/ wood chips: 0.5588 $tCO2/t_{fuel}$
Purpose of data	Calculation of the baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2: Stationary Combustion, Table 2.9 – Residential Source Emission Factors The value has changed from the ex-ante estimates as the revised values for the GWPs have been used for N_2O and CH_4.

Relevant SDG Indicator	SDG 13, Climate Action
Parameter	$NCV_{b,i}$
Data unit	TJ/tonne
Default values used	Fuelwood/ wood chips: 0.015 TJ/ tonnes
Purpose of data	Calculation of the baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction, Table 1.2- Default net calorific values

Relevant SDG Indicator	SDG 13, Climate Action
Parameter	$NCV_{p,i}$
Data unit	TJ/tonne
Default values used	Fuelwood/ wood chips: 0.015 TJ/ tonnes
Purpose of data	Calculation of the baseline scenario
Source of verification of the source	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1: Introduction, Table 1.2- Default net calorific values

Relevant SDG Indicator	SDG 13, Climate Action
Parameter	$f_{NRB,b,i,y}$
Data unit	Fraction of non- renewable biomass used in the baseline
Default values used	Fuelwood: 0.89 Renewable solid biomass fuels (Crop residues/ cow dung): 0.0000 Fossil fuels: 1
Purpose of data	Calculation of the baseline scenario
Source of verification of the source	C4 EcoSolutions study

Annex 2: Assessment of data and parameters monitored

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Relevant SDG Indicator	SDG 13 Indicator 13.2.1 "Amount of CO2e emissions reduced by the project per year"
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	$B_{p,y,i}$
Unit	Tonnes per household per annum
Measuring frequency/Time Interval:	Updated every two years
Reported value	1.1951 tonnes
Verified Source of Data	Field Performance Tests (FPTs)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	The moisture meters (Ryobi MM-210 2 in 1 moisture testers (5-50%/±2%)) and scales (ACCUD 75kg x 10g (0.01kg resolution)) are used in the KPT surveys of which the invoices are provided by the PP named "7529" /17-1/, dated 29/08/2022, "12173_Cicada_Moisture_Meters_20230621" /17-2/, dated 21/06/2023, "Stove scales receipt" /17-3/ and "Stove scales receipt 1" /17-4/ both dated 14/05/2023. The manufacturer specification provided for the products /18/ and the invoices /17/ are reviewed and it confirms that the devices used in the KPT surveys are newly purchased. Based on the assessment of the parameters $B_{b,y}$, and $B_{p,y}$ from tab "bKPT" and "pKPT" of ER sheet "VPA2_Zimbabwe_MRV2_ER calc sheet_v1.4"/02/ respectively, it has been confirmed that the procedures used in the KPT survey, the calculations including the procedure for outlier selection has been consistently applied for arriving at the final value of $B_{b,y}$ and $B_{p,y.}$
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request	NA

for deviation been approved?	

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Relevant SDG Indicator	SDG 13 Indicator 13.2.1 “Amount of CO2e emissions reduced by the project per year”
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	$U_{p,y}$
Unit	Fraction (or %)
Measuring frequency/Time Interval:	Annual
Reported value	90%
Verified Source of Data	Annual usage survey
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Relevant SDG Indicator	SDG 13 Indicator 13.2.1 “Amount of CO2e emissions reduced by the project per year”
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	$N_{p,y}$
Unit	Number
Measuring frequency/Time Interval:	Continuous
Reported value	85,605 (Number of ICS distributed)
Verified Source of Data	Monitoring Database The sample size selected randomly by PD for the Habit surveys and the Project KPT for this MP includes stoves distributed pre-MP and during-MP. The sample size of PD is used as population for the VVBs

	acceptance sampling for the on-site audit. Also, the distribution records are also provided by the PD in the supporting document. Hence, the new distribution are verified.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 13 Indicator 13.2.1 “Amount of CO2e emissions reduced by the project per year”
Data / Parameter: (as in monitoring plan of POA-DD/VPA-DDS):	$LE_{p,y}$
Unit	Tonnes of CO2 equivalent per year
Measuring frequency/Time Interval:	Aggregate leakage can be assessed for multiple project scenarios, if appropriate, every two years
Reported value	0
Verified Source of Data	Leakage assessment
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place

processes in place?	
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 1 Indicator 1.4.1 "Proportion of population living in households with access to basic services"
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	BSA/ HHS
Unit	Number
Measuring frequency/Time Interval:	Annually
Reported value	85,605 ICS in use
Verified Source of Data	1. Monitoring Database ICS distribution records 2. Ex- post Monitoring Survey Records
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 3 Indicator 3.9.1 "Mortality rate attributed to household and ambient air pollution"
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	SPM_{HH}

Unit	%
Measuring frequency/Time Interval:	Annually
Reported value	98%
Verified Source of Data	Ex- post Monitoring Survey Records
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 5 Indicator 5.4.1 “Proportion of time spent on unpaid domestic and care work, by sex, age and location”
Data / Parameter: (as in monitoring plan of POA-DD/VPA-DDS):	HHTS
Unit	%
Measuring frequency/Time Interval:	Annual
Reported value	96%
Verified Source of Data	Ex- post Monitoring Survey Records
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 7 Indicator 7.1.2 “Proportion of population with primary reliance on clean fuels and technology”
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	$AACS_{HH}$
Unit	Number
Measuring frequency/Time Interval:	Continuous
Reported value	85,605 ICS distributed
Verified Source of Data	ICS Monitoring Database
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 8 Indicator 8.5.1 “Average hourly earnings of female and male employees, by occupation, age and persons with disabilities”
Data / Parameter: **(as in monitoring plan of POA-DD/VPA-DDS):**	QE IG
Unit	Number

Measuring frequency/Time Interval:	Annually
Reported value	30 (16 male/14 female) employed across VPA 2
Verified Source of Data	Employment Records
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	**Assessment/ Observation by the DOE**
Relevant SDG Indicator	SDG 12 Indicator 12.2.2 “Domestic material consumption, domestic material consumption per capita and domestic material consumption per GDP”
Data / Parameter: (as in monitoring plan of POA-DD/VPA-DDS):	$B_{y,savings}$
Unit	Tonnes/ year
Measuring frequency/Time Interval:	Annually/ biennially
Reported value	4.2929 tonnes
Verified Source of Data	Ex- post Monitoring Survey Records
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Assessment of details of monitoring equipment, its specification and calibration as per the requirements of registered POA-DD/VPA-DDS:	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Annex 3: Checklist for evaluating the compliance of project with requirement and guidelines -Usage rate requirement (2.0)

Section	Sub Section	Criteria	DOE response
1. Scope and applicability	N/A	a. DOEs the project/PoA undergoing certification involve any one or more of the following technologies: solid, gaseous fuel based improved cooking technologies for example firewood, charcoal based improved cookstove, household biogas digesters, solar cookers, etc.?	Yes, the project activity involves the distribution of improved cookstoves.
		b. If there is any conflict with the TPOA-DD/VPA-DDSTEC methodology, are all the rules and requirements contained in this Annex given precedent and followed by the project/PoA?	There is no conflict observed with the TPDDTEC methodology.
2. Requirements and guidelines	2.1 Levels of usage	a. Has the project/PoA clearly specified the usage monitoring requirement level in the POA-DD/VPA-DDS/VPA-DD?	Yes, please refer section B.7.1 of the VPA-DD/B04/
		b. Has the project/PoA correctly applied the level of usage and associated monitoring requirements in accordance with the claimable usage rates?	Yes. As per the article 2.3 of the guideline/B07/, Good practice level of usage with maximum 90% usage rate has been applied
		c. In case the project/PoA applies a different level of usage as compared to the registered POA-DD/VPA-DDS, have the monitoring requirements from the levels below been followed?	The MR has also followed Good practice usage level which is explained in section D.4 of MR/01/
		a. Has the project/PoA defined project technology “use” and “non-use” (Step 1) and documented the criteria applied for defining them in the POA-DD/VPA-DDS(s)?	Use and Non-use has not been defined in the VPA DD/B04/. The use and non use is defined in section D.4 of MR/01/.
		b. Is the project’s definition of “use” and “nonuse” correct and their documentation of the criteria applied for defining this done correctly?	The definition for use and non use has been added in the section D.4 of the MR/01/.
		c. Has the project/PoA correctly identified criteria to	Yes, the use and non use project technology has been identified during the

	2.2 Mandatory monitoring requirements	define use and non use considering the representative cooking practices and likely project technology use?	monitoring survey and can be assessed from the habitat survey sheet/05/.
		d. Has the project developer carried out in-person household usage surveys (Step 2) by: i. Determining the minimum sample size for the survey as per the methodology requirements? ii. Performing the following monitoring activities, at minimum, as per the requirements of this Annex: Kitchen observation, interview of the primary cook, taken photos of the cooking areas and recorded the GPS coordinates of the household?	d. i. yes, the detailed sampling procedure is given in section D.4 of MR/01/ ii. yes, the questionaries conducted and the photographs taken during monitoring survey has been verified by DOE
		e. Has the project developer performed the verification checks (Step 3) prior to the verification by the DOE?	Yes, the same has been verified on the basis of the review of call records and verification checks spreadsheet/15/ provided by PP.
		f. Has the project developer kept a record of the verification checks containing the details. of households and their responses?	Yes, the records are also provided to the DOE in the file "VPA_2_MP2_HabitSurvey"
		g. DOEs the evidence establish a clear relationship between the usage claimed by the project and observations made during the in-person household surveys?	Yes, the observation provided in the evidence /11/ has been cross checked with the ER sheet/02/ and DOE confirms that the evidence establishes a clear relationship between the usage rate claimed by project and observations made in in-person surveys.
	2.3 Good practice monitoring requirements for improved cooking devices.	a. Has the project/PoA successfully met all the mandatory usage rate requirements?	DOE confirms that the project met all the mandatory usage rate requirement defined in the section 2,2 of REQUIREMENTS AND GUIDELINES: USAGE RATE MONITORING version 2.0./B07/
		b. Is the project/PoA eligible to apply the good practice monitoring requirements?	Yes, PP has followed all procedure required for the mandatory as well as good practice usage requirements as provided in section D.4 of MR/01/
		c. Has the project developer carried out the following monitoring activities as per the relevant requirements: i. Field team training and supervision ii. End-user training and follow-up visits? Awareness campaign?	Based on the review of the section D.4 of MR/01/ and its supporting documents/05/15/. DOE confirms that the monitoring activities have been carried out as per the requirement.
		d. Has the project developer provided evidence for trainings, follow up site visits,	Yes, the evidence/05/15// have been provide to DOE and verified.

		awareness campaign?	
		e. In DOE's opinion, i. Can the effectiveness of the trainings, follow up site visits and awareness campaigns be confirmed? ii. Should project developer make changes in registered trainings, site visits and awareness campaigns to enhance the effectiveness?	i. Based on the review of the MR/01/, and supporting documents, DOE confirms that the trainings, follow up visits and awareness campaigns are deemed to be effective, and ii. No further changes are required.
	2.4 Best practice monitoring requirements	a. Has the project/VPA successfully met all the mandatory & good practice usage rate requirements?	PoA has not opted for this level of usage, and therefore not applicable for this PoA
		b. Is the project/PoA eligible to apply the best practice monitoring requirements?	
		c. Has the project developer carried out stove use monitoring activities as per the relevant requirements?	
		d. Has the project developer correctly calculated the stove use based on the stove use monitoring?	
3. Determination of usage rate ($U_{p,y}$)		a. Has the project developer applied the applicable cap at individual age-group?	Yes, verified based on review of ER sheet /02/, tab "Upy".
		b. Has the project developer appropriately applied the weighted-average usage rate quantification approach to each monitored project technology age group?	Yes,

Annex 4: Questions from the PP's habit survey for monitoring the SDGs

SDG 13:

- $U_{p,y}$ & $LE_{p,y}$: (how many days since stove is used, if stove warm, is soot present in the stove, if the stove is ashy, frequency of using the stove, why low use of stove, why stove not used, if alternative stove used, type of alternative stove, frequency of using the alternative stove,)
- $N_{p,y}$ (based on the duration on the monitoring period and the number of devices)
- $B_{p,y,l}$ (KPTs/10/ are conducted to determine the amount of fuel used in the project scenario)

SDG 1:

- BSA/HHS: (is money saved due to reduction in wood used, amount of money saved by wood reduction, is money saved in the new stove, amount of money saved from the new stove)

SDG 3:

- SPM_{HH} (Blackening of pots used, smoke from the stove,)

SDG 5:

- HHTS: (is time saved in collecting wood, time saved in wood collection, time saved in cooking, amount of time saved in cooking, cooking time in project ICS compared to baseline scenario)

SDG 7:

- $AACS_{HH}$ (time to get hot, fire start difficulty, fire stability, temperature control, difficulty in cooking, wood consumption, heating performance, stove durability, stove maintenance)

SDG 8: QE IG (employment records/14/ provided by the PP)

SDG 12: $B_{y,savings}$ (KPTs/10/ are conducted to determine the amount of fuel used in the project scenario)