INSTALLATION OF HIGH EFFICIENCY WOOD BURNING COOKSTOVES IN MALAWI

Document Prepared By

Carbon Check (India) Private Ltd.

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Summary:

- A brief description of the verification and the project

Verification: Carbon Check (India) Private Ltd. (CCIPL) has been contracted on 20-April-2023 by C-Quest Capital SG Stoves Private Ltd., the project proponent, to carry out the 5th verification of voluntary greenhouse gas emission reductions generated by the Project Activity Instances, under the grouped project "Installation of high efficiency wood burning cookstoves in Malawi". The verification is based on the desk review of the Monitoring report /01-e/, registered VCS PD and the corresponding validation report /12/, supporting emission reduction calculation spread sheets /02-e/ and other relevant supporting documents made available to the verification team by the project proponent accompanied by on-site interviews. This verification involves the period from 16-September-2022 to 28-February-2023 (including both the days).

Project: The project "Installation of high efficiency wood burning cookstoves in Malawi", is a grouped project which employs VCS methodology; VMR0006 version 1.1 /B01/. The project entails the distribution of fuel-efficient improved cookstoves (ICS) in Malawi . The project results in reducing the amount of non-renewable biomass used for cooking. Through reduction in non-renewable biomass consumption, the programme will decrease greenhouse gas emissions.

- The purpose and scope of verification

Purpose: The purpose of the verification is to review the monitoring results and verify that monitoring methodology was implemented in accordance with the monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources are sufficient, definitive and presented in a concise and transparent manner. Monitoring plan, monitoring report and project compliance with relevant VCS, UNFCCC and host party criteria are particularly verified to confirm that the project has been implemented in accordance with previously registered design and conservative assumptions, as documented.

Scope: The scope of the verification is:

- To verify the project implementation and operation with respect to the registered VCS PD.
- To verify the implemented monitoring plan with the registered VCS PD 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.

- The monitoring period 16-September-2022 to 28-February-2023
- The method and criteria used for verification

(a) Desk review, involving:

(i) Review of the data and information presented to verify their completeness;

(ii) Review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;

(iii) Evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

(b) On-site assessment involving:

(i) Assessment of the implementation and operation of the proposed VCS grouped project activity as per the registered VCS PD;

(ii) Review of information flows for generating, aggregating and reporting the monitoring parameters;

(iii) Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the registered VCS PD;

(iv) A cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources;

(v) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the VCS PD and the selected methodology;

(vi) Review of calculations and assumptions made in determining the GHG data and emission reductions;

(vii) Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

- The number of findings raised during verification

A risk-based approach has been followed to perform this verification. During the course of verification, a total of 11 findings were raised, which includes:

04 Corrective Action Request (CAR); 07 Clarification Requests (CLs);

All the raised findings.

- Any uncertainties associated with the verification

The VCS Monitoring Report /01-e/, emissions reduction calculations /02-e/ along with the supporting documents provided are considered to be in line with all the VCS requirements /B01/. The verification team has detected no further uncertainties or quality restriction.

- Summary of the verification opinion

In CCIPL's opinion, the emission reductions reported for the "Installation of high efficiency wood burning cookstoves in Malawi" in the monitoring report are fairly and correctly stated. CCIPL is therefore able to certify that the emission reductions from the "Installation of high efficiency wood burning cookstoves in Malawi" during the period from 16-September-2022 to 28-February-2023 is amount 542,191tCO_2 equivalent.

CONTENTS

1 Introduction 8

1.1 Objective ... 8

1.2 Scope and Criteria ... 8

1.3 Level of Assurance ... 9

1.4 Summary Description of the Project ... 10

2 Verification Process 10

2.1 Method and Criteria ... 10

2.2 Document Review ... 11

2.3 Interviews ... 11

2.4 Site Visits ... 19

2.5 Resolution of Findings ... 21

2.5.1 Forward Action Requests 21

2.6 Eligibility for Validation Activities ... 21

3 Validation Findings 21

3.1 Participation under Other GHG Programs ... 21

3.2 Methodology Deviations ... 21

3.3 Project Description Deviations ... 22

3.4 Grouped Project ... 22

4 Verification Findings 27

4.1 Project Implementation Status ... 27

4.2 Safeguards ... 28

4.2.1 No Net Harm 28

4.2.2 Local Stakeholder Consultation 29

4.3 AFOLU-Specific Safeguards ... 30

4.4 Accuracy of GHG Emission Reduction and Removal Calculations ... 30

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals ... 44

4.6 Non-Permanence Risk Analysis ... 44

5 Verification OPINION 45

APPENDIX 1.1: Reference Documents 48

APPENDIX 1.2: Background Documents 49

APPENDIX 2: ABBREVIATIONS 50

APPENDIX 3: CERTIFICATES OF COMPETENCE 52

APPENDIX 4: FINDINGS LOG 55

1 INTRODUCTION

1.1 Objective

Carbon Check (India) Private Ltd. (CCIPL) has been contracted on 20-April-2023 by C-Quest Capital SG Stoves Private Ltd, the Project Proponent (PP), to undertake the verification of the project titled "Installation of high efficiency wood burning cookstoves in Malawi" for the monitoring period 16-September-2022 to 28-February-2023 (including both days). Through the verification activities, it is to be confirmed that:

- The project is implemented as described in the VCS Project Description document /12/;
- The monitoring system is implemented and fully functional to generate emission reductions without any double counting, and
- The data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reductions calculation.

The verification followed the requirements of the current version of the VCS Standard (Version 4.4) /B02-a/ and VCS Program Guide (version 4.3)/B02-b/ to ensure the quality and consistency of the verification work and the report.

1.2 Scope and Criteria

The verification of this project is based on the Monitoring Report of the 5th monitoring period /01-d/, registered VCS PD /12/, Emission reduction calculation spreadsheets /02-c/, supporting documents made available to the verifier and information collected through performing on-site interviews. Furthermore, publicly available information was considered as far as available and required.

CCIPL has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is carried out on basis of the following requirements, applicable for this project activity:

- VCS Standard (v4.4) /B02-a/
- VCS Program Guide (v4.3) /B02-b/
- VCS Methodology: VMR0006.: Methodology for Installation of High Efficiency Firewood Cookstoves" (Version 1.1)/B01/.
- Other relevant rules, including the host country legislation.

The scope of this verification, by independent checking of objective evidence, is as follows:

- To verify that the project is implemented as described in the registered VCS PD.
- To assess the project's compliance with other relevant rules including the host country legislation.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.
- 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.

The method and criteria used for verification consisted of the following phases:

1. Completeness check and desk review;
2. On-site interviews with stakeholders;
3. Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.

CCIPL conducts all its work under strict rules to safeguard impartiality and ensure the independence of the verification team. The verification team does not provide any consulting or recommendations for the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

1.3 Level of Assurance

The verification report is based on the Monitoring report /01-e/, registered VCS PD /12/, supporting documents, made available to the verifier and information collected through performing on-site interviews.

The verification has been planned and organised to achieve a:

☒ Reasonable level of assurance as per VCS Standard (v4.4)

☐ Limited level of assurance

The threshold for quantitative materiality with respect to the aggregate of errors, omissions, and misrepresentations, relative to the total reported GHG emission reductions and/or removals was limited to five percent, as required by section 4.1.8 of the VCS Standard version 4.4 /B02-a/.

1.4 Summary Description of the Project

The project "Installation of high efficiency wood burning cookstoves in Malawi", is a grouped project, which employs the VCS methodology; VMR0006 version 1.1 /B01/. The grouped project involves distribution and installation of fuel-efficient improved cook stoves (ICS) in Malawi. The project will disseminate 500,000 fuel efficient (ICS) TLC-CQC Rocket stove through 10 years, total ICS distributed till the end of 5th monitoring period is 438,579 and 382,002 number of ICS were operational. The TLC-CQC Rocket stove will reduce the amount of non-renewable biomass used for cooking. PP has considered each ICS distributed as a project activity instance. The start date for the grouped project is 01-December-2020 /03/ which is the date of installation/registration of the first stove in the grouped project.

The project proponent for the project activity is C-Quest Capital SG Stoves Private Ltd and C-Quest Capital SG Stoves Private Ltd owns the rights to VERs /17, 18/.

The total estimated GHG emission reductions achieved from Project activity instances are 542,191 tCO_2e for this monitoring period from 16-September-2022 to 28-February-2023.

The project activity has been implemented as described in the registered VCS PD and the emission reductions are calculated conservatively as per the applied methodologies /B01/.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The method and criteria used for verification:

The verification consists of the following three phases:

1. Completeness check and desk review of the registered VCS PD /12/, validation report, monitoring plan, monitoring report, monitoring methodology, applicable tools in particular attention to the frequency of measurements, quality of metering equipment including calibration requirements, QA/QC procedures and other relevant documents;

2. On-site interviews (including follow-up interviews with project stakeholders, when deemed necessary). The on-site interviews include the following:

   - An assessment of implementation and operation of project activity with respect to validated VCS PD

- Review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interview with relevant personnel to determine whether the operational and data collection procedures are implemented and in accordance with the monitoring plan of the validated VCS PD,
- Cross check of information and data provided in the monitoring report with purchase records or similar data sources;
- Review of assumptions made in calculating the emission reductions (if any);
- Implementation of QA/QC procedure in-line with the registered VCS PD and methodology requirements.

3. Resolution of outstanding issues and the issuance of the final Verification report and as applicable the VCS Verification Deed of Representation.

2.2 Document Review

During the document review, CCIPL has applied standard auditing techniques to assess the quality of information provided. The verification was performed primarily based on the review of the monitoring report and the supporting documentation. This process included:

- A review of data and information presented by the PP to verify their completeness
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the QA/QC procedures, and
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report (version 1.0, dated 01-June-2023) /01-a/ was initially reviewed and CCIPL requested the PP to present the supporting information and documents. The documents were reviewed by CCIPL. Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to resolve the CARs and CLs issued by the verification team.

The list of documents referred during the course of this verification has been provided in Appendix-1.1.

2.3 Interviews

The table below describes the on-site interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the project description, Monitoring report /01-d/ and any supporting documents.

Table 01: - onsite interviews

Sl. No.	Date	Name	Organisation	Topic	Persons Interviewed
/1/	30/06/2023 & 01/07/2023	Chandan Kumar Sah	C-Quest Capital (CQC) - CSAT	• Project Design • Project Implementation status • Project start date and Project Location • Baseline Scenario • Baseline Identification and Additionality • Qualification and Training • Monitoring and reporting documentation • Quality Assurance – Management and operating system • Social and Environmental Impacts • Local Stakeholders meeting process • Compliance with relevant laws • Roles and responsibility	Rishi Kishore Raychoudhury
/2/	30/06/2023	Maxwell Chafuka	C-Quest Capital (CQC)	• Project Design • Project Implementation status • Project start date and Project Location	Rishi Kishore Raychoudhury

				• Baseline Scenario • Baseline Identification and Additionality • Qualification and Training • Monitoring and reporting documentation • Quality Assurance – Management and operating system • Social and Environmental Impacts • Local Stakeholders meeting process • Compliance with relevant laws • Roles and responsibility	
/3/	30/06/2023	Onyx Hsachiwa	CQC- MD, Malawi	• Project Design • Project Implementation status • Project start date and Project Location • Baseline Scenario • Baseline Identification and Additionality • Qualification and Training • Monitoring and reporting documentation • Quality Assurance – Management	Rishi Kishore Raychoudhury

				and operating system • Social and Environmental Impacts • Local Stakeholders meeting process • Compliance with relevant laws • Roles and responsibility	
/4/	30/06/2023 & 01/07/2023	Matias Njikho	CQC-Operational manager, Malawi	• Installation and operation of the project training before registration process, and training related to the monitoring survey	Rishi Kishore Raychoudhury
/5/	30/06/2023	Annie Chimomto	CQC-Logistics and Admin Manager, Malwai	Transfer of the metal parts related to the projects	Rishi Kishore Raychoudhury
/6/	30/06/2023	Eletina Chilona	CQC-Womens Health specialist, Malawi	Social and Environmental Impacts	Rishi Kishore Raychoudhury
/7/	30/06/2023 & 01/07/2023	Enock Mphande	CQC-Regional manager (monitoring and verification), Malawi	Monitoring process, training, related to the monitoring survey	Rishi Kishore Raychoudhury
/8/	30/06/2023	Hastings M. banda	CQC-Finance and Admin Manager, Malwai	Project financing and admin related activity	Rishi Kishore Raychoudhury

/9/	30/06/2023	Glyness Chagona	CQC Malawi Assistance store manager	Storage and maintenance of the metal parts.	Rishi Kishore Raychoudhury
/10/	30/06/2023	Esther Phanga	CQC- HR Manager, Malawi	Employment related activities	Rishi Kishore Raychoudhury
/11/	30/06/2023	Tinkhani Phiri	Village savings and loan Specialist	Project loan and savings related activities	Rishi Kishore Raychoudhury
/12/	30/06/2023	Yamikani Liyenda	CQC- Project Audit manager, Malawi	Project audit related activities	Rishi Kishore Raychoudhury
/12/	30/06/2023	Estele Potasiyo (Sister of Efilina Samalani) (Stove 1 ID – CQCVMW0279698, Stove 2 ID – CQCVMW0279693)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/14/	30/06/2023	Laika Pitison (Stove 1 ID – CQCVMW0249528, Stove 2 ID – CQCVMW0249508)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/12/	30/06/2023	Lifinet Kambalame (Stove 1 ID – CQCVMW0026301, Stove 2 ID – CQCVMW0026302)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j)	Rishi Kishore Raychoudhury & Priscilla Kumwima

				• Baseline Scenario • Additionality	
/16/	30/06/2023	Delia maikolo (Stove 1 ID – CQCVMW0574350, Stove 2 ID – CQCVMW0574348)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/17/	30/06/2023	Meleya Doloko (Stove 1 ID – CQCVMW0186695, Stove 2 ID – CQCVMW0186696)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/18/	30/06/2023	Kanachu Saides (Stove 1 ID – CQCVMW0130975, Stove 2 ID – CQCVMW0130976)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/19/	30/06/2023	Esinta Yokoniya (Stove 1 ID – CQCVMW0248360, Stove 2 ID – CQCVMW0248361)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima

/20/	30/06/2023	John Chuthonk	CQC- stove champions	Training provided and grievance	Rishi Kishore Raychoudhury & Priscilla Kumwima
/20/	30/06/2023	Stenous Mdoka	CQC- field coordinator	• Monitoring survey • Training provided. • Grievance	Rishi Kishore Raychoudhury & Priscilla Kumwima
/21/	01/07/2023	Priscca Halisoni (Stove 1 ID – CQCVMW0017761, Stove 2 ID – CQCVMW0017800)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/22/	01/07/2023	Valentina Gamatula (Stove 1 ID – CQCVMW0178666, Stove 2 ID – CQCVMW0178667)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/23/	01/07/2023	Jenifer Maleyu (Wife of Sereman thyapulani) (Stove 1 ID – CQCVMW0014903, Stove 2 ID – CQCVMW0014904)	End user	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/24/	01/07/2023	Veronika Nkhoma (Stove 1 ID – CQCVMW0016207,	End user	Onsite interviews (Ex-post parameters)	Rishi Kishore Raychoudhury &

		Stove 2 ID – CQCVMW0016229)		• To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Priscilla Kumwima
/25/	01/07/2023	Agnnes Silles (Stove 1 ID – CQCVMW1388208, Stove 2 ID – CQCVMW1388209)	End user (Additional)	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima
/26/	01/07/2023	Sysreck liphaia	CQC- field coordinator	• Monitoring survey • Training provided. • Grievance	Rishi Kishore Raychoudhury & Priscilla Kumwima
/27/	01/07/2023	Salome Yasote (Stove 1 ID – CQCVMW0014905, Stove 2 ID – CQCVMW0014906)	End user (Additional)	Onsite interviews (Ex-post parameters) • To check Number of project devices operating during year y (Ny,j,j) • Baseline Scenario • Additionality	Rishi Kishore Raychoudhury & Priscilla Kumwima

Apart from the monitoring survey, VVB has also interviewed the beneficiary and confirmed regarding the baseline cookstove (i,e, Three stone fire) used prior to the implementation of the project stove and additionality whether the stove are distributed free of cost as per the registered VCS PD/12/. Furthermore, through document review registration certificate cum consent deed signed by the beneficiary, VVB could verify that all new instances comply with the 10% efficiency requirement as per the applied methodology /B01/.

2.4 Site Visits

Carbon Check has conducted an on-site inspection from 30-June-2023 to 01-July-2023. In line with paragraph 26 of the Sampling Standard, the verification team has applied acceptance sampling approach during on-site interviews on the sampling survey as part of verification. The project participant had applied sampling approach. A representative Monitoring survey /06/ was conducted by the representatives of Project participant. The verification team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B04/.

PP has applied sampling for the current monitoring period. A confidence/precision level of 90/10 has been used by the PP for all the monitoring parameters determined through applying simple random sampling for this monitoring period, under this grouped project for calculating sample size as mentioned below as per Section 4.3 of the Monitoring report /01-e/

The sample size calculations for each of the monitoring parameters monitored through the sampling have been provided in section 4.4 below. As the calculated sample size was 48, in accordance with the paragraph 14 of the sampling standard version 09 /B04/, required sample size of 48 has been chosen when the parameter of interest is a proportion ($N_{y,i,j}$).PP has by default seen 96 samples as each household has 2 ICS distributed of the same model. Monitoring survey has been carried out for the required samples. Hence it is in accordance with the sampling plan provided in the registered VCS PD /12/,

Applying paragraph 39 of the sampling standard, version 09 /B04/, a sample size of 11 ICS was chosen. A random sample size of 11 ICS was determined, based on an AQL of 0.5% and UQL of 20%, producer risk 10% and consumer risk 10%. Acceptance number thus determined for the sample is 0. However, VVB interviewed 22 samples (as all 11 Household onsite interviewed have 2 ICS each). Most of the household were distributed with two cookstoves, so by default VVB has seen, checked and verified both ICS at the premises of the 11 random samples household interviewed during the onsite visit. From the sampling survey done by project participants.

The information provided in the sampling survey data /07/, has been cross checked during the on-site interviews conducted. As a part of acceptance sampling, the verification team could confirm the sampling survey data with no discrepant records. Thus, PP's set of records has been accepted in line with paragraph 33 of the sampling standard, version 09 /B04/.

The verification team carried out on-site interviews with representatives of PP in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the VCS.

2.5 Resolution of Findings

CCIPL, during this verification, identified issues related to the monitoring, implementation or operation of the VCS project that could impair the capacity of the proposed VCS project to achieve project emission reductions or influence the reporting of emission reductions. CCIPL has identified, discussed these issues within the Verification report in Appendix 4.

- Clarification requests (CLs): Project reporting lacks transparency and further information is needed to determine if a material discrepancy is present.

- Corrective action requests (CARs): The VVB has identified a material discrepancy or non-conformance that the project proponent must address.

The verification team identified 04 CARs and 07 CLs. All CAR and CLs raised by Carbon Check during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the VCS Registry.

2.5.1 Forward Action Requests

Forward Action Request (FAR) is to be raised when the monitoring and reporting require attention and/or adjustment for the next verification period. FARs does not relate to VCS requirements for issuance of ERs achieved during subject monitoring.

CCIPL has not raised any FAR during this verification.

2.6 Eligibility for Validation Activities

The project activity falls under sectoral scope 03 and the CCIPL is accredited for validation /verification of project activities under this scope.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

It has been confirmed through the description in PD /12/ and through interviews that the project activity does not participate in any emission trading program or any other GHG program and has not sought or received any other form of environmental credit. The project has applied only under VCS for registration. The grouped project is not participating under any other GHG programs.

3.2 Methodology Deviations

There is no methodology deviation identified during the current monitoring period.

3.3 Project Description Deviations

There is no project description deviation identified during the current monitoring period.

3.4 Grouped Project

The grouped project (the project) entails the dissemination of energy efficient stoves for cooking purposes. A total of 438,579 ICS was disseminated and 382,002 number of ICS were operational till the end of this 5th monitoring period. The total estimated GHG emission reductions achieved from Project activity instances are 542,191 tCO_2e for this monitoring period from 16-September-2022 to 28-February-2023. Therefore, as described in the registered project document/12/, for each new instance (installed ICS) the eligibility criteria below confirm the new project activity instances in the assessment below:

The number of new project activity instances added to the project in this verification period, under this grouped project PP has considered each ICS as a project activity instance which is deemed acceptable as per the VCS Program Definitions and VCS Standard/B02-a/. The eligibility criteria of the project activity instance were established at the group project validation in the VCS PD /12/.

- Quality and completeness of evidence, data and documentation relating to the new project activity instances:

The assessment team has reviewed the evidence collected by the PP for each of the PAI included in this verification and confirmed the following;

- Implementation and operational status of the PAI
- Monitoring and data collection
- Flow of information; generating, aggregating and reporting of the monitoring parameters
- Conformance of the new project activity instances with the eligibility criteria set out in the project description:

The verification team assessed the appropriateness of new project activity instances (added to the grouped project) against the requirements of the following key elements defined in section 3.2.11 of the Validation and Verification Manual (version 3.2):

Table 02 :- Eligibility Criteria for new project activity instances as per the VCS VVM

Key Element	Requirements /B02-c/	VVB Assessment
Geographic Areas	VVBs must ensure that the project description clearly identifies the geographic areas within which new instances may be added. Geographic areas must be defined using geodetic polygons and provided in a KML file. Such geographic areas need not be	The verification team reviewed the sales record database /08/ and by further conducting interviews with representatives of PP to confirm that all new project activity instances are located within the geographical area identified in the

	contiguous and may be large or small, noting the grouped project requirements for additionality and baseline assessments of the geographic area.	registered VCS PD /12/. All new project activity instances are located within the host country of Republic of Malawi. This is deemed appropriate to the verification team. Thus, the requirement of this key element is met.
Identification of baseline scenario and demonstration of additionality:	The assessment of baseline scenario and additionality is based upon the initial instances included within each geographic area. VVBs must ensure that, for each project activity, a single baseline scenario exists for each geographic area. VVBs must also ensure for each project activity that additionality is demonstrated across the entirety of each geographic area. Failing this, VVBs must require that the geographic areas are redefined such that the requirements are met. As with projects with multiple instances, project activity instances within a grouped project should be part of the same investment decision if they are to be included in a single project.	The verification team reviewed the sales record database /08/, conducted interviews with representatives of PP and further based on its sectoral expertise confirms that baseline scenario for each project technology and geographic area, as identified in section 3.4 of the VCS PD /12/, is applicable to the corresponding new project activity instances under the specific technology. In addition, the verification team further confirms that each new project activity instance included within the grouped project follows the additionality. Thus, it has been demonstrated that for each project activity instance included in grouped project • Baseline scenario exists (corresponding to the project technology) • the requirements of additionality are being complied with for the entirety of geographic area (Republic of MALAWI) within which they are installed. This is deemed appropriate to the verification team. Thus, the requirements of this key element has been met by all the new project activity instances added to the grouped project.

Eligibility criteria	VVBs must ensure that an appropriate set of eligibility criteria are established for each combination of project activity and geographic area. The criteria are used to validate new project activity instances, essentially serving as a checklist to determine whether the instances share the same attributes as the initial set of validated project activities instances. For example, eligibility criteria for grouped projects implementing CFLs may state that new instances must be installed in grid-connected households and the CFLs must be at least 30 percent more expensive compared to conventional incandescent bulbs. In general, VVBs must ensure that the eligibility criteria are developed sufficiently that such determinations could be made when validating new instances. Eligibility criteria must also conform to any restrictions set out in the methodologies applied.	PP has provided the applicability of each of the eligibility criteria for all the project instances in section 3.3 of the MR /01-e/ which is in compliance with the VCS PD /12/. Based on the assessment provided, the verification team concludes that each new project activity instance meets the appropriate set of eligibility criteria (as defined in VCS PD) and thus shares the same attributes as the initial set of validated project activity instances. Thus, the verification team deems them to be appropriate for inclusion in the grouped project. This is deemed appropriate to the verification team. Thus, the requirements of this key element has been met by all the new project activity instances added to the grouped project.
Monitoring and GHG information system	VVBs must ensure that the project has an appropriate monitoring plan that includes a sampling plan to collect data from all project activity instances and information systems, allowing for centralized data collection. VVBs must ensure the sampling plan is able to generate statistically significant results.	The verification team reviewed the VCS MR /01-e/ and further conducted interviews with representatives of PP to confirm that the monitoring plan and procedures mentioned therein (which includes the sampling plan) is in conformance to the requirements laid out in the VCS PD /12/. Moreover, according to the monitoring plan the PP is responsible for collecting and storing data. The verification team further confirms that new project activity instances will conform to the monitoring plan requirements and procedures stated therein.

		However, as per specific requirements of the applied methodologies VMR0006, version 1.1/B01/, sampling for monitoring the project under methodologies has taken place during the current monitoring period. Based on the review of the applied methodologies and VCS PD this is deemed to be acceptable to the verification team. Refer to section 4.1 below for detailed discussion on monitoring activities. This is deemed appropriate to the verification team. Thus, the requirements of this key element has been met by all the new project activity instances added to the grouped project.
Methodology	Grouped projects can apply methodologies other than those designed specifically for grouped projects. When reviewing the methodology and the project's application of it, VVBs must be mindful of any capacity limits applicable to the methodology. VVBs need only ensure that project activity instances and clusters adhere to such capacity limits; the grouped project as a whole may exceed the capacity limit.	The verification team reviewed the MR /01-e/, sample electronic sales records (Tally records) for new project activity instances, sales records spreadsheets /08/ and further conducted interviews with representatives of PP to confirm that all new project activity instances comply with the requirements of their respective applied methodologies /B01/. Furthermore, it is confirmed that no methodologies other than those designed specifically for grouped projects have been applied. Moreover, all new project activity instances comply with the respective capacity limits as per the applied methodologies. This is deemed appropriate to the verification team. Thus, the requirements of this key element

		has been met by all the new project activity instances added to the grouped project.

Based on the above assessment the verification team confirms that inclusion of project activity instances in the grouped project is valid.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The grouped project, "Installation of high efficiency wood burning cookstoves in Malawi" is registered under VERRA as a VCS project on (VCS Project ID 2342) applying the VCS methodology VMR0006 version 1.1 /B01/ "Methodology for Installation of High Efficiency Firewood Cookstoves".

The project "Installation of high efficiency wood burning cookstoves in Malawi", is a grouped project, which employs the VCS methodology; VMR0006 version 1.1 /B01/. The grouped project involves distribution and installation of fuel-efficient improved cook stoves (ICS) in Malawi. The project will disseminate 500,000 fuel efficient (ICS) TLC-CQC Rocket stove. The total ICS disseminated till the end of 5th monitoring period is 438,579 units and 382,002 number of ICS were operational. The TLC-CQC Rocket stove will reduce the amount of non-renewable biomass used for cooking. PP has considered each ICS distributed as a project activity instance. The start date for the grouped project is 01-December-2020 /03/ which is the date of installation/ registration of the first stove in the grouped project.

The verification team confirms that there is no change of physical features from the registered VCS PD, which may impact the emission reductions of the project activity. This has been confirmed based on the review of sales records /08/, conducting interviews with representatives of PP as well as by carrying out on-site interviews with end users. Thus, the verification team concludes that, all the physical features of the VCS grouped project in the registered VCS PD/12/ are in place.

The verification team confirms that during the current monitoring period (16-September-2022 to 28-February-2023) the VCS grouped project has disseminated 90,266 units of ICS and total of 438,579 ICS are disseminated and 382,002 number of ICS were operational till the end of this 5th monitoring period. This was confirmed based on the review of database /08/ and further based on interviews with representatives of PP through on-site interviews.

During the on-site interviews for verification, QA/QC procedures were identified which demonstrate that: operational and management system of the grouped project is in place; data were centralized; monitoring data were crosschecked with the sales records stored and confirmation that all operational staff were trained before taking up positions. The verification team thus confirmed that the monitoring of the project activity has been implemented in accordance with the monitoring plan in the registered VCS PD.

The registered VCS PD clearly describes the monitoring and responsibility of monitoring is done by PP. During the on-site interviews, monitoring, data collection and reporting procedures were confirmed with the relevant staff and through document review of samples of all relevant records.

The verification team confirms that the monitoring plan is in accordance with VCS approved methodologies VMR0006 version 1.1 /B01/. All data are collected and archived in accordance with the applied methodologies and included in the monitoring plan. This was confirmed based on the on-site interviews with representatives of PP and upon further review of samples of all relevant records.

All the ex-ante parameters which are used in the calculation of emission reductions are consistent with the VCS PD. It is confirmed that ex-ante parameters mentioned in section 4.1 of the MR /01-e/ are in line with the parameters mentioned in section 5.1 of the VCS PD. All the ex-post parameters have been monitored as per the monitoring plan and presented in section 4.2 of the MR /01-e/.

4.2 Safeguards

4.2.1 No Net Harm

Not applicable as the project does not pose any potential negative environmental and socio-economic impact.

- The project does not coerce the population into any practice or habit which they are not willing to take up as the cooking practice or habit on the project stove is similar to what was practiced before implementing this project activity, i.e., on the baseline stove.
- The project activity promotes gender equality as it intends to reduce the burden on women in the most vulnerable communities by reducing the fuel wood consumption. The amount of time spent collecting fuel wood and cooking will be reduced. Women will have more time for other pursuits. The risk of being exposed to gender-based violence will also reduce.
- The project is neither involved in any activity that would bring environmental deterioration nor will lead to any emission of toxic substances. The project stoves will rather reduce emissions due to the increased thermal efficiency compared to the baseline stoves.
- There are no threats anticipated in terms of negative effects on the local economy. Moreover, the locals will also be employed as a result of this project activity. Thereby improving the economic growth in the region where the project activity has been implemented.

4.2.2 Local Stakeholder Consultation

The Local Stakeholder Consultation meetings were held on 26-October-2020 and 25-November-2020 throughout the validation and are detailed in section 2.2 of the monitoring report /01-e/. The Local Stakeholder consultation was carried out at grouped project level, which was validated by the validation team during the VCS PD /12/ validation.

The key comments made by the local stakeholders were all answered during the local stakeholder consultation meetings and have also been provided in the section of 2.2 the registered PD /12/ and MR /01/.

The local implementation partners have the responsibility to take grievances regarding the project activity and same will be conveyed to PP during operation of project activity. Thus, ongoing communication of stakeholders is followed through grievance mechanism. The audit team has checked through onsite audits with the end users, four grievances has been received during the fifth monitoring period and has been stated under section 2.2 of the MR/01/. This has been checked during the onsite visit by the verification team. The Project Proponent has reported its feedback and grievance redressal procedure in Section 2.2 of the MR /01/, and the policy is outlined in the document Grievance logbook /15/. In the opinion of assessment team, based onsite interviews and observations, the grievance redressal procedure will address issues that may arise during project planning and implementation.

The grievance redressal process has been designed where beneficiaries and stakeholders have PP contact information and the understanding that they should contact the organization with any problems, questions, or grievances.

PP considered 100 number of HH samples for the spot audit in the region of Ntcheu and Ntchisi region of Malawi for the current monitoring period. The audit was conducted by the trained staff of PP to ensure the consistency and correctness of recording of information and responses. During the audit PP has identified few findings related to operational procedure / usages of the stoves by the HH. PP has successfully closed all the findings to ensure the proper functioning of the stoves. PP has submitted spot audit /16/ report for the current monitoring period to VVB.As per VCS PD /12/ and further confirmed during onsite interviews, in case the end-users have a provision to approach CQC through their village chief. The village chief then reports the concerns to the concerned person, i.e., field staff from CQC who takes it further and resolves the issue. In The opinion of VVB, this would protect the traditional sentiments and value system of the villages and help them express their issues without any hesitation and deemed appropriate to the VVB.

From the on-site interviews and based on document review /01/, grievance register records/15/, it can be confirmed that grievance redressal procedure has been designed and is implemented according to section 2.2 of the MR /01/ and that it is effective in its aim.

The verification team confirms on the procedure and method for engagement, method for documenting the outcomes of local stakeholders' consultation and account of all inputs received. The verification team

confirms that the project proponent has taken due account of all input/ feedback received during the monitoring process (positive or negative) have been compiled in the survey results spreadsheet/06/, this has been checked by the verification team during the onsite interviews. Hence the verification team deemed the local stakeholders ongoing communication as appropriate.

4.3 AFOLU-Specific Safeguards

This is a non-AFOLU project and therefore, this section is not applicable.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The equations and choices provided in the methodology as well as all other methodological tools, are correctly quoted in the Monitoring report /01-d/. The emission reductions of the project instances of the grouped project and project activity instance are calculated using the formulae mentioned in the applied methodology; VMR0006 version 1.1 /B01/. The verification team reviewed the emission reduction spread sheets and checked all the formulae, concluding that they are correct and in accordance with the monitoring plan of the PD and the applied monitoring methodology.

According to applied methodology VMR0006 (version 1.1) /B01/the emissions are calculated as below:

<u>Baseline Emission</u>

$$ER_y = \sum_i \sum_j ER_{y,i,j} \qquad \text{Equation (1)}$$

Where,

i	=	Indices for the situation where more than one type/model of improved cookstove is introduced to replace three-stone fire
j	=	Indices for the situation where there is more than one batch of improved cookstove of type i
ER_y	=	Emission reductions during year y in t CO_2e
$ER_{y,i,j}$	=	Emission reductions by improved cookstove of type i and batch j during year y in t CO_2e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times \left(EF_{wf,CO2} + EF_{wf,non\ CO2}\right) \times N_{y,i,j} \times 0.95 \qquad \text{Equation (2)}$$

Where,

$B_{y,savings,i,j}$	=	Quantity of woody biomass that is saved in tonnes per improved cookstove of type i and batch j during year y
$f_{NRB,y}$	=	Fraction of woody biomass that can be established as non-renewable biomass (f_{NRB})
$NCV_{wood\ fuel}$	=	Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne)
$EF_{wf,CO2}$	=	CO_2 emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO_2/TJ)
$EF_{wf,non\ CO2}$	=	Non-CO_2 emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO_2/TJ)
$N_{y,i,j}$	=	Number of improved cookstoves of type i and batch j operating during year y
0.95	=	Discount factor to account for leakage

The quantify of woody biomass saved due to implementation of improved cookstoves to be estimated using equation below:

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times \left(\frac{\eta_{new,y,i,j}}{\eta_{old}} - 1\right) \quad \text{Equation (3)}$$

Where,

η_{old}	=	Efficiency of baseline cookstove. A default value of 0.10 has been used as the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e., without a grate or a chimney.
$\eta_{new,y,i,j}$	=	Efficiency of the improved cookstove type *i* and batch *j*, determined using Equation 5 of the methodology.
$B_{y=1,new,i,j,survey}$	=	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type *i* and batch *j*, determined in the first year of the implementation of the project through a sample survey.

$$\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94 \quad \text{Equation (4)}$$

Where,

η_p	=	Efficiency of project stove (fraction) at the start of project activity.
$(DF_n)^{y-1}$	=	Discount factor to account for efficiency loss of project cookstove per year of operation (fraction). This value may be based on actual monitoring or based on manufacturer's declaration on expected loss in efficiency or through publicly

		available literature on relevant industry standards. Alternatively default value of 0.99 efficiency loss per year can be considered.
0.94	=	Adjustment factor to account for uncertainty related to project cookstove efficiency test.

Leakage Emissions: In accordance with methodology VMR0006 version 1.1, leakage is considered as default 0.95.

Sampling approach:

As assessed in this section, emission reductions for the project "Installation of high efficiency wood burning cookstoves in Malawi" has being claimed for this monitoring period and the total number of the stoves for this monitoring period (16-September-2022 to 28-February-2023.) is 438,579 ICS and 382,002 number of ICS were operational.

The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B01/ and the VCS PD /12/. The PP has appropriately performed Simple random Sampling procedure, reliability levels were set at 90% confidence and 10% precision in line with the applied methodology VMR 0006 version 1.1/B01/. As the VCS PD /12/ mentions the option for Simple random Sampling procedure, it is acceptable to the verification team.

The sampling surveys have been carried out by the well-trained personnel /11/. Monitoring parameters $N_{y,j,j}$ are monitored through monitoring sample surveys. Monitoring of the parameters ensures compliance with the applied methodology VMR0006, version 1.1 /B01/. Verification team has checked the survey records /07/ and sample size calculation/10/. Parameter $N_{y,j,j}$ monitors the number of project devices in operation.

PP has applied sampling for the current monitoring period. A confidence/precision level of 90/10 has been used by the PP for all the monitoring parameters determined through applying simple random sampling. Monitoring survey has been carried out to check the parameter of interest is a proportion ($N_{y,j,j}$) . However, PP has applied simple random sampling on all distributed samples till end of this current monitoring period, this is in accordance with the sampling plan provided in the registered VCS PD /12/ in which it is mentioned that project device will be homogenous in nature irrespective of geographical location inside project boundary which is republic of Malawi and all distributed ICS shall be grouped together to create a primary sampling unit. The sample size calculations for each of the monitoring parameters monitored through the sampling have been provided in the table below. As the calculated sample size were 48, in accordance with the paragraph 14 of the sampling standard version 09 /B04/, a minimum sample size of 48 has been chosen when the parameter of interest is a proportion ($N_{y,j,j}$). PP has chosen 96 responded samples using the sample size calculation as;

$$n \geq \frac{1.645^2 \text{ x } 438{,}579 \text{ x } 0.85\ (1-0.85)}{(438{,}579-1) \text{ x } 0.1^2 \text{ x } 0.85^2 + 1.645^2 \text{ x } 0.85\ (1-0.85)} = 47.75$$

1. Under this project activity two stoves were distributed in one household. Survey team also surveyed the second stove. Therefore, during this survey total 96 stoves were surveyed, as PP has applied the simple random sampling out of 96 ICS, all 96 stoves are in operation, Thus, pp has applied 100% survey result. This approach is deemed appropriate to the verification team. It has been observed by reviewing the paragraph "Sampling Plan" under section 5.3 of the registered PD, geographical location does not have influence on the parameter of interest Ny and can be considered homogeneous regardless of how the end user group and distribution / installation is defined since the end user shall always be households within the project boundary i.e. republic of Malawi. Therefore, PP has selected the simple random sampling to determine the sample size for the parameter of interest.
2. Moreover, under section 4,4 of the registered PD, PP has chosen equation 4 of the applied methodology (i.e. VMR0006 v1.1) to calculate the quantity of woody biomass that is saved in tonnes per ICS during a year. To calculate the saving of woody biomass, PP has referred equation 5 of the applied methodology for the efficiency of the project ICS i.e. $\eta_{new,y,i,j}$. In section 5.2 of the registered PD, the efficiency of the ICS i.e. $\eta_{new,y,i,j}$ is determined and fixed as ex-ante parameter for the entire crediting period and an fixed efficiency drop of ~ 1% (approx.) has been considered throughout the project ICS irrespective of geographical location, vintage etc.).

The resultant applied sample size by the PP are summarized below:

Parameters	$N_{y,i,j}$
Sample size	96
Precision achieved	0.09%

During verification, VVB used sampling to determine the operational status of the households. Given that Malawi is a Least Developed Country, a sample size of 11 random stoves was chosen using paragraph 39 (c) of the sampling standard, version 09 /B04/. A random sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%, producer risk 10% and consumer risk 10%. Acceptance number (c) thus determined for the sample is 0. VVB interviewed 22 samples (as all 11 Household onsite interviewed have 2 ICS each). Each household were distributed with two cookstoves, so by default VVB checked and verified both ICS at the premises of each Household interviewed during the onsite visit samples for monitoring survey. It was observed that out of the 22 samples, all the 22 stoves were found to be operational and this matched with the PP's records and hence no discrepant records were observed with the MR /01/ and ER sheet /02/ and thus c=0. Thus, PP's set of records has been accepted in line with paragraph 33 of the sampling standard, version 09 /B04/. Verification team has cross verified these sample documents.

The monitoring parameters required to be monitored through the sampling plan are:

1. Number of project devices operating during year y ($N_{y,i,j}$)

Simple random sampling was applied by the PP for selection of the monitoring samples with 90/10 confidence/precision for determining the sampling for all the parameters which is deemed acceptable as per the VCS PD /12/.

As per paragraph 25 of the Sampling Standard, version 09 /B04/, the verification team has to verify whether the project participants entity have implemented the sampling and surveys according to the sampling plan in the registered monitoring plan. The verification includes determining:

(a) Whether the required confidence/precision has been met;

(b) Whether the selected sample was representative of the population.

Table 03:- Parameter selected during Monitoring

Parameter	How the PP conducted sampling surveys (to obtain the project participants' or the coordinating/managing entities' records)	How the VVB could obtain records for verification	Criteria for deciding what ultimately constitutes a discrepancy
Number of project devices operating during year y ($N_{y,j,j}$)	Sampling based survey (questionnaire survey/interviews) Visual inspection of the premises to see if ICS is operational and in use. Interview with end user if required to verify that ICS is still in use [Yes/No]	Cross-check of a sample of project participants' samples (questionnaire operation surveys/interviews) including but not limited to following: • Consistency between the information as contained in Survey sheet and revealed from the on-site interviews • Baseline scenario of the household, focusing on the usage of the fuel type and type of stove used in the baseline. • Enquire/observe the pre-project/baseline stove/s and its operation during the project scenario.	VVB results, accounting for duly justified differences.

The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B01/ and the VCS PD /12/. The PP has appropriately performed Simple random Sampling procedure in line with the applied methodology. As the VCS PD /12/ mentions the option for Simple random Sampling procedure, it is acceptable to the verification team.

The necessary confidence / precision of 90/10 each of the parameters are met. This has been cross verified by the verification team from the supporting documents submitted.

Emission reductions have been calculated in accordance with the applied methodology VMR0006 version 1.1 /B01/, and VCS PD /12/. The PP has used monitored data and ex-ante fixed data including default values as mandated/permitted by the applied methodology. The values used for calculation of GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

Table 3:- Parameters Determined ex-ante:

Parameter	Unit	Value	Assessment
$f_{NRB,y}$	Fraction	0.91	-Fixed ex-ante -The value is calculated by third party C4 Ecosolutions in line with the applicable methodological CDM Tool 30, version 3.0.
$NCV_{wood\ fuel}$	TJ/tonne	0.0156	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 1 Introduction have been used.
$EF_{wf,CO2}$	tCO_2/TJ	112	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion have been used.
$EF_{wf,non\ CO2}$	tCO_2/TJ	26.23	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion have been used.

η_{old}	Fraction	0.1	- Fixed ex-ante - Default values from the methodology.
η_p	Fraction	0.345	- Fixed ex-ante -Manufacturers specification.

The spread sheet submitted by the PP clearly and transparently mentions values of the data parameters used for calculation of emission reductions. The input values have been verified from the reliable and authentic sources including monitoring records (distribution records) /08/, Monitoring Report /01-e/, and applied methodology /B01/. The emission reductions calculated were compared with the emission reduction spread sheet /02-e/ and found to be correct. No significant reporting risks have been identified for the data reported.

Manufacture of ICS

PP promotes end user to build the stove themselves (mud and brick structure) and then PP provides all metal parts to end user at the time of registration of the ICS in project database. PP is providing free of cost replacement for the metal parts in case it is damaged or broken throughout the crediting period of the project. All end users have been trained to repair the mud and brick structure in case of any cracks or damage.

Considering the above, it can be confirmed that TLC Rocket stove can easily survive the project lifetime of 10 years due to ease of repair and free replacement of metal parts.

The details of monitoring parameters used for calculation of emission reductions are provided below:

Table 04:- Parameters monitored ex-post

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Number of project devices of type i and batch j operating during year y ($N_{y,i,j}$)
Measuring frequency/Time Interval:	At least once every two years
Reporting frequency:	At least once every two years
Reported value:	382,002
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained from monitoring survey of samples /06/

Is accuracy of the monitoring equipment as stated in the VCS PD? If the VCS PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of the VCS PD? If the VCS PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	QA/QC procedures stated in MR comply with VCS PD /12/
Company performing the calibration(internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /07/ and the ER sheet /02-e/.
How were the values in the monitoring report verified?	Please refer to the assessment of Finding 2 in APPENDIX 5: SECTION 6.1 VERRA REVIEW.
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	NA

theoretically possible been applied or has a request for deviation been approved?	

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Efficiency of the improved cookstove type *i* and batch *j* during year *y* ($\eta_{new,y,i,j}$)
Measuring frequency/Time Interval:	Annually
Reporting frequency:	Annually
Reported value:	

Year (y)	$\eta_{new,y,i,j}$
1	32.43%
2	32.11%
3	31.78%
4	31.47%
5	31.15%
6	30.84%
7	30.53%
8	30.23%
9	29.92%
10	29.63%

Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value is calculated in the ER spread sheet /02-e/
Is accuracy of the monitoring equipment as stated in the VCS PD? If the VCS PD does not specify the accuracy of the monitoring	NA

equipment, does the monitoring equipment represent good monitoring practise?	
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of VCS PD? If the VCS PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	QA/QC procedures stated in MR comply with VCS PD /12/
Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with the ER sheet /02-c/.
How were the values in the monitoring report verified?	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 VVB

Data / Parameter: (as in monitoring plan of VCS PD):	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j ($B_{y=1,new,i,j,survey}$)
Measuring frequency/Time Interval:	In the first year of project implementation
Reporting frequency:	In the first year of project implementation
Reported value:	Quantity of woody biomass used by project devices in tonnes per device: 0.8161 Considering the actual usage rate of ICS i.e., 6.8021 days/week being captured during the current monitoring survey: 0.7930 (Tonnes per device per year)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained through calculation/02-c/
Is accuracy of the monitoring equipment as stated in the VCS PD? If the VCS PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of the VCS PD? If the VCS PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Calibration of weighing scales used for measuring the fuel wood was done in house before start using on site. QA/QC procedures stated in MR comply with VCS PD /12/
Company performing the calibration(internal or external calibration):	NA

Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with the ER sheet /02-e/ During the current MP, PP has conservatively considered the average usage rate of ICS (6.8021 days/week) being captured during the current monitoring survey from representative samples and the same has been applied in apportioning of emission reductions. The VVB verified the same in the ER calculation excel spreadsheet using onsite audit survey response w.r.t monitoring survey response.
How were the values in the monitoring report verified?	Please refer to the assessment of Finding 1 in APPENDIX 5: SECTION 6.1 VERRA REVIEW.
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 from monitoring survey /07/ 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 VVB
Data / Parameter: (as in monitoring plan of VCS PD):	The operating lifetime of the project device. (Life Span)
Measuring frequency/Time Interval:	Once at the time of project stove installation
Reporting frequency:	Once at the time of project stove installation

Reported value:	10
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained from Manufacturer specification /04/
Is accuracy of the monitoring equipment as stated in the VCS PD? If the VCS PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of the VCS PD? If the VCS PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	QA/QC procedures stated in MR comply with VCS PD /12/
Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with the ER sheet /02-e/.
How were the values in the monitoring report verified?	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data	Yes, the data management ensures correct transfer of data from monitoring survey /06/ and reporting of emission reductions and all necessary QA/QC processes are in place.

and reporting of emission reductions and are necessary QA/QC 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

PP has conducted monitoring survey after the end date of MP which is accurate and representative of the project performance during the MP duration 16-September-2022 to 28-February-2023

Verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered VCS PD /12/. The total number of emission reductions for the monitoring period (16-September-2022 to 28-February-2023) is 542,191tCO_2e.

The verification team has checked and confirmed the calculations in the spreadsheet and found to be accurate. The monitoring report is supported by emission reduction spreadsheet. The consistency and formula were verified and found to be accurate. The comparison of Ex-ante and Ex-Post has been provided by the PP in the section 5.4 of the MR/01-e/, and it clearly states the emission reduction is higher than the ex-ante assumed as all the cookstove are in operation and this has been also checked during the on site visit by the verification team, Hence the remark made by PP is deemed appropriate.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

When verifying the report emission reduction, CCIPL ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source documents that form the basis for assumptions and other information underlying the GHG data are shown above.

When assessing the audit trails, CCIPL also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period

2. The source and nature of the evidence

3. If comparable information was available from sources other than that used in the monitoring report, CCIPL cross-checked the monitoring report against the other sources to confirm that the stated figures were correct. The sources and the data referenced are shown in Appendix 1 below.

CCIPL also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology.

Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

The monitoring personnel at site are well trained and follow reproducible routines. Thus, they are competent to carry out the relevant tasks with sufficient accuracy. The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the site visit to confirm the authenticity of the documents and to check the correctness of the calculation/02-c/.

The verification team can confirm that sufficient evidence is available for the whole monitoring period and the same is verifiable and that the data collection system meets the requirements of the monitoring plan and the applied methodology according to the assessment carried out on site and in the document review. Verification team confirms that the quality of evidence to determine the GHG reductions and removals produced was found satisfactory. The detailed information flow with the roles and responsibilities of the individuals and the monitoring system have been provided in the VCS-MR/01-d/.

4.6 Non-Permanence Risk Analysis

The project activity was operational throughout the monitoring period. Hence there is no further requirement for the non-performance analysis rating during the monitoring period of the project activity.

5 VERIFICATION OPINION

The Project Participant, C-Quest Capital SG Stoves Private Ltd, has commissioned the VVB, Carbon Check (India) Private Ltd. to perform a verification of the VCS Project Activity "Installation of high efficiency wood burning cookstoves in Malawi". This report summarises the findings of the verification of the project, performed on the basis of VCS criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification process was performed on the basis of all guidance and criteria as provided in VCS Standard version 4.4 /B02-a/, VCS Program Guide version 4.3/B02-b/, VCS Validation and Verification Manual version 3.2 /B02-c/ and Registration & Issuance Process version 4.3 /B02-d/.

The selected baseline and monitoring methodology (VMR0006, Version 1.1) /B01/ is applicable to the project and correctly applied.

The verification team confirm that the project has been implemented in accordance with the project description/12/.

Verification period: From 16-September-2022 to 28-February-2023 (both days inclusive)

Table 05: Emission Reductions claimed before this monitoring period

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2020 (01-December-2020 to 31-December-2020)	380	0	0	380
2021 (01-January-2021 to 15-April-2021)	28,415	0	0	28,415
2021 (16-April-2021 to 15-October-2021)	185,898	0	0	185,898

2021 (16-October-2021 to 31-December-2021)	133,137	0	0	133,137
2022 (01-January-2022 to 28-February-2022)	116,996	0	0	116,996
2022 (01-March-2022 -- 15-September-2022)	488,648	0	0	488,648
Total	**953,474**	**0**	**0**	**953,474**

Table 06: Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
2022 (16-September-2022 to 31-December-2022)	339,342	0	0	339,342
2023 (01-January-2023 to 28-February-2023)	202,849	0	0	202,849
Total	**542,191**	**0**	**0**	**542,191**

Table 07: Comparison of Ex-Ante and Ex-Post Emission Reductions and Removals (ERR) values

Monitoring Period days: 16-Sept-2022 to 28-Feb-2023

No. of Days: 166

Year	*Ex-ante emissions reductions/ removals*	*Achieved emissions reductions/ removals*	*Percent difference*	*Justification for the difference*
2022 & 2023 (16-September-2022 to 28-February-2023)	767,761	542,191	29.4%	Actual emission reductions achieved are lower than higher than the estimated in ex-ante calculation, as PP has considered the value of stoves in operation 87.10% as per secondary data of other projects on a conservate basis. during the monitoring period y as compared to the 10% annual loss rate assumed in VCS-PD.

The verification team is of the opinion that the project has been implemented in accordance with the registered project description, the monitoring plan complies with the approved monitoring methodology. The monitoring was carried out in accordance with the monitoring plan, and that the monitored data and ER calculations were assessed and confirmed to be correct.

Therefore, CCIPL hereby certifies, and requests the issuance of, the reported ERs during the monitoring period of 16-September-2022 to 28-February-2023 amounting to 542,191tCO_2e to the VCS Registry.

APPENDIX 1.1: REFERENCE DOCUMENTS

Ref	Document
/01/	a)Initial Monitoring report Version 1, dated 01-June-2023 b)Revised Monitoring report Version 1.1, dated 20-July-2023 c) Revised Monitoring report Version 1.2, dated 18-August-2023 d) Final Monitoring report Version 1.3, dated 01-December-2023 e) Final Monitoring report Version 1.4, dated 26-August-2024
/02/	a)ER calculation spread sheet v1.0 b)ER calculation spread sheet v1.1 c) ER calculation spread sheet v1.2 d) ER calculation spread sheet v1.3 e) ER calculation spread sheet v1.4
/03/	Registration certificate cum consent deed as evidence for the start date of the grouped project
/04/	Technical specifications of the TLC-CQC Rocket Stove including the life span.
/05/	Employment Records
/06/	Monitoring survey questionnaire template
/07/	Survey records for the monitoring period
/08/	Database for the ICS distributed and sales records for the monitoring period
/09/	Registration certificate as evidence for unique identification of each of the ICS
/10/	Sample size and precision level achieved calculator for the monitoring period
/11/	Training records • Attendance register
/12/	VCS PD for the grouped project "Installation of high efficiency wood burning cookstoves in Malawi" version 03, dated 11/10/2021 and it corresponding validation report version 03
/13/	PP User Manual and Procedure for Data Quality Check
/14/	Previous verification report
/15/	Scanned grievance logbook/register CQC Grievances Redress policy
/16/	Spot audit report as evidence for monitoring of the ICS
/17/	Declaration from the project proponent • that the project is not creating any other form of environmental credit under any specific program. • the project has not or shall not claim carbon credits under any other scheme after Registration of the project under VCS to avoid double counting.
/18/	Emails sent to retailers and stove manufacturer as evidence for the project and potential risk of

	Scope 3 emissions double claiming.
/19/	Onsite Records
/20/	2024.10.01 - CQC Letter to Verra with Exhibit A, dated 01/10/2024
/21/	Email confirmation from VERRA on acceptance of the Letter "2024.10.01 - CQC Letter to Verra with Exhibit A."
/22/	File 1: 44.03.06 Privileged & Confidential - Stove champion data (26 August 2024)
/23/	File 2: 44.03.05 Stoves in Operation - Verified Secondary Data (2024-08-05).
/24/	File 3: 44.02.05.01.02.01 Verra s6.1 MP1 2342 ops data
/25/	File 4: 44.02.05.01.03.01.01 2342 MP5 Nyij Precision_23082024
/26/	1) Confidential - VVB Technical Review Pre-Read (29 July 2024) .pdf 2) indictment__us_v._newcombe_et_al._24_cr._567_redacted%20(1).pdf

APPENDIX 1.2: BACKGROUND DOCUMENTS

Ref	Document
/B01/	Applied baseline and monitoring methodology a. VMR0006. version 1.1, "Methodology for Installation of High Efficiency Firewood Cookstoves"
/B02/	VCS Requirements a) VCS Standard (v4.4, dated 17/01/2023) b) VCS Program Guide (v4.3, dated 17/01/2023) c) VCS Validation and Verification Manual version (v3.2, dated 19/10/2016) d) Registration & Issuance Process (v4.3, dated 17/01/2023) e) VCS Program Definitions version (v4.3, dated 21/12/2022) f) VCS MR template version 4.2 (dated 21/12/2022)
/B03/	Methodological Tool • CDM Tool 30 "Calculation of the fraction of non-renewable biomass" Version 03.0
/B04/	a. "Standard for sampling and surveys for CDM project activities and programme of activities" (version 09.0) b. Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04)
/B05/	Website and links: 1. IPCC (http://www.ipcc-nggip.iges.or.jp) 2. http://cdm.unfccc.int

	3. Home - Verra

APPENDIX 2: ABBREVIATIONS

CDM	Clean Development Mechanism
BE	Baseline Emission
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism

CL	Clarification Request
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DPR	Detailed project report
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
FVR	Final validation Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
IPCC	Intergovernmental Panel on Climate Change
MW	Mega Watt
MWh	Mega Watt Hour
NA	Not Applicable
OSV	On Site Visit
PD	Project Description
PP	Project Proponent
QC/QA	Quality control/Quality assurance
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VCU	Verified Carbon Unit
VVB	Validation Verification Body
VVM	Validation and Verification Manual
VVS	Validation and Verification Standard

APPENDIX 3: CERTIFICATES OF COMPETENCE

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Rishi K Raychoudhury

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	Expiry Date
5th December 2023	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

Carbon Check (India) Private Limited

Certificate of Competency

Priscilla Kumwima

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 Malawi			

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	Expiry Date
1st December 2023	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
May 2023	Initial Adoption
Dec 2023	Template changes to include additional functions and TA

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

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Indumathi C

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 and Sri Lanka			

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	Expiry Date
5th December 2023	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 4: FINDINGS LOG

Table 1. CLs from this verification

Finding	CL 01		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	1. PP is requested to provide the evidence for start date and MP of the project activity. 2. PP is requested to provide evidence for start date of the project activity.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has provided the registration records to VVB as evidences for start date of MP as well as the project activity.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has provided registration record for the installation of 1st cookstove along with the last verification report which clearly establish the start date of the project activity and the MP. Hence, CL is closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CL 02		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	PP is requested to clarify the consideration of following SDGs with credible evidence: - 1. SDG target 3.9 2. SDG Target 4.3 3. SDG Target 5.4 4. SDG Target 7.1 5. SDG Target 8.3 6. SDG Target 13.0 7. SDG Target 15.3		

Finding	CL 02
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has submitted the below documents to VVB as evidence for claimed SDGs. 1. Monitoring survey records capturing reduction in smoke, reductions in soot levels near cooking area, reduction in itchiness of eyes felt by respondents. 2. Training records provided to individuals associated with the project. 3. Monitoring survey records reflecting reduction in drudgery and gender inequality, especially for women and children by saving time spent in collecting fuel wood and cooking. 4. Database records of distributed project ICS. 5. Employment records of individuals directly and indirectly employed under the project activity. 6. Emission reduction calculation spreadsheet showing GHG reduction achieved during the current monitoring period. 7. ER excel spreadsheet showing non-renewable biomass saved per stove during the current MP.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1) PP has submitted signed (surveyor & HH) survey form in which HH has mentioned that reduction in smoke is observed during the MP of the project activity. Hence, CL is closed. 2) PP has submitted attendance sheet of the training conducted in CQC head office on monitoring survey training along with the list of trainings conducted till now for the project activity. Hence, CL is closed. 3) PP has submitted signed (surveyor & HH) survey form in which HH has mentioned that their time of collecting firewood and cooking has reduced during the MP of the project activity. Hence, CL is closed. 4) PP has provided the database of the total distributed ICS (438,579) which shows that project activity is contributing in SDG 7 (SDG indicator – 7.1.2). Hence, CL is closed. 5) PP has provided sample evidence for employment which leads to directly or indirectly employment. Since, Project activity is registered in SD VISta and PP will provide detailed evidence in 1st verification under SD VISta. Hence, CL is closed. 6) PP has provided the ER calculation spreadsheet for the contribution of project activity in SDG 13 which VVB has crosschecked and found correct. Hence, CL is closed. 7) PP has provided the survey form in which HH has mentioned that in the MP of the project activity they required less firewood and PP has provided detailed calculation in ER calculation spreadsheet and saved approximately 1.20tons of woody biomass per stove during this MP. Hence, CL is closed.

Finding	CL 02
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 03		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	As per the paragraph 3.18.19 (1,2,3) of the VCS standard version 4.4 "*The project proponent shall develop a grievance redress procedure to address disputes with local stakeholders that may arise during project planning and implementation, including with regard to benefit sharing. The procedure shall include processes for receiving, hearing, responding and attempting to resolve grievances within a reasonable time period, taking into account culturally appropriate conflict resolution methods. The procedure and documentation of disputes resolved through the procedure shall be made publicly available. The procedure shall have three stages:.....*" *PP to explain how the grievance of the beneficiaries are addressed as per the Grievance Policy.* Also, PP has stated under the same section 2.2 of the MR "*During the current monitoring period four grievances were received from the end users related to stove maintenance, lost metal parts, stove usage, etc.*". PP shall provide evidence for closure of all grievances.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has a robust feedback and grievance redress policy and procedure in order to ensure that grievances of project-affected communities and individual stakeholders are properly handled and addressed. During the current monitoring period, PP has received four grievances, and all has been addressed. All the grievances received, and actions being taken during the current monitoring period are provided in the table under section 2.2 of the VCS MR. The grievance register records also have been shared with VVB for reference.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In	PP has mentioned about the grievances received during the current MP and action taken for address the grievances of the Household. PP has submitted grievance register picture as		

Finding	CL 03
case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	evidence for the same. Thus, PP has a robust feedback and grievance redress policy as per the requirement of VCS standard v4.4 para. 3.18.19 . Hence, CL is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 04		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	During the site visit the VVB randomly checked 4 nos. of additional HH outside the usage survey. During the check it was found that the cook stove with serial no CQCVMW0014905 was found to be non-operational. However, the review of data base it was observed that the same stove is considered for ER calculation. PP shall clarify what QA / QC measures have put in place to avert and handle such situation.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has a robust database management system and migration of any end user or stoves that are reported to be in non-operation by our field coordinators or staff gets removed from the database. Field coordinators frequently visit their respective villages, and any such cases (if found) are reported to the country manager immediately. Since one of the two stoves in that HH bearing stove serial no. CQCVMW0014905 was in non-operation for past 8 days from VVB site visit and the case reported was beyond the current monitoring period, therefore PP had considered the ICS for current MP verification. However, now PP has conservatively removed the HH (both stoves) from the database and has not accounted those stoves for ER calculations. The same can be verified from revised ER calculation spreadsheet.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has opted conservative approach and remove the non-operating cookstove from the database and revised the ER calculation in the ER calculation spreadsheet. Hence, CL is closed.		

Finding	CL 04
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 05		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	During assessment of MR and ER sheet it has been observed that there is an increase of 36.2% in emission reduction for the current MP as compared to Ex-ante. PP shall explain the reason for this increase in emission reduction as compared to ex-ante.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has apportioned the ERs considering the actual average usage rate of ICS being captured during the current monitoring survey. Actual emission reductions achieved are now 32.4% higher than the value estimated in ex-ante calculation due to 100% ICS were found operating during the monitoring survey as compared to the 10% annual loss rate assumed in VCS-PD.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	As per the registered PDD the annual usage loss rate for the ICS was assumed 10% whereas during the monitoring survey for this MP 100% usage rate of ICS is observed which leads to 36.2% higher ERs than estimated. However, due to decrease in weekly usage of ICS from 7days per week to 6.8021 days per week the ERs is now 32.4% higher than the ex-ante ER.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CL 06		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	It has been observed that in the last MP, PP has achieved 100% usage rate for the distributed ICS with usage of ICS 7 days per week. However, during the usage survey for the current MP, it is observed that the usage of ICS is less than 7 days per week. PP is requested to clarify whether 100% usage rate is still valid for the current MP.		

Finding	CL 06
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has considered the actual average usage rate of 6.8021 per ICS per week that is being captured during the current monitoring survey from representative samples and the same has been applied in apportioning of emission reductions. Sampling as well as ER calculation excel spreadsheet considering the usage rate has been shared with VVB for reference.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	Initially the PP has estimated the ER calculation considering the usage of ICS 7 days per week. However, in this MP survey it is observed that the weekly average usage rate of ICS is 6.8021 days. PP has apportioned the same in the ER calculation spreadsheet and the revised certified ER is 542,191tCO_2e w.r.t the version 1.0 of ER calculation for the current MP. There is reduction of 2.83% in the final version 1.2 of ER sheet.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 07		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	It is observed to VVB that the PA had two PP in last monitoring period i.e., **"C-Quest Capital SG Stoves Private Limited and C-Quest Capital Stoves Asia Limited"** whereas in the registered PD, PP for PA is **"C-Quest Capital Stoves Asia Limited" only.** Moreover, for the current monitoring period, PP for PA is **"C-Quest Capital SG Stoves Private Limited" only.** PP is requested to clarify.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	There is a single PP representative "C-Quest Capital SG Stoves Private Ltd" in the current monitoring period. One of the PP has been released via partial release representation and the VCS deed of partial release dated 11th January 2023 is available on the Verra webpage: https://registry.verra.org/app/projectDetail/VCS/2342		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	VVB has crosschecked the ownership of the project activity in verra registry and found that one of the PP released from the ownership of project activity on 11-Janurary-2023 and now the PP of the project activity is **"C-Quest Capital SG Stoves Private Limited"** only. Hence, CL is closed.		
Conclusion	☐ To be checked during the next periodic verification		

Finding	CL 07
Tick the appropriate checkbox	☐ Outstanding finding (not closed) ☒ The finding is closed

Table 2. CARs from this verification

Finding	CAR 01		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	PP is requested to provide summary of the project in one page as per instruction mentioned in VCS MR template filling form.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has updated the summary of the project as requested in section 1.1 of the VCS MR.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has made the necessary changes in section 1.1 of the VCS MR. Hence, CAR is closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 02		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	PP has deleted the table of section 1.4 of MR template filing form which is not as per general instruction for filing MR template form.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has removed the table in section 1.4 of VCS MR since there are no other entities involved in the project apart from the Project Proponent(s).		

Finding	CAR 02
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has removed the table as there is no other entity involved in the project activity other than PP which is acceptable justification. Hence, CAR is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 03		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The link provided by PP in section 1.7 of the MR is not working. PP is requested to provide active link.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has updated the weblink as requested in section 1.7 of the revised VCS-MR.		
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has provided active link in section 1.7 of the VCS MR which VVB crosscheck and found correct. Hence, CAR is closed.		
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 04		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	1) PO is requested to provide evidence for project's SD contribution in appendix of the MR report as per instruction mentioned in section 1.11 of MR template filling form. 2) SDG indicator 8.3.1 mention in MR is not in line with description mentioned in official SDG indicators under UNDP. PP is requested to rectify the same.		

Finding	CAR 04
	3) It is observed that there is inconsistency in SDG target and subsequent SDG indicator mentioned in section 1.11 of the MR. PP is requested to rectify the same.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. In accordance with Paragraph 3.17.2 of VCS Standard, version 4.4, "Where project complete a validation or verification to the Sustainable Development Verified Impact Standard (SD VISta) Program at the same time as a VCS Program validation or verification, they are not required to conduct a separate demonstration of compliance with the requirements set out in this Section 3.17". Since the project is being pursued for verification under SD Vista for the present monitoring period (same can be verified using the link: https://registry.verra.org/app/projectDetail/SDVISTA/2342). Therefore, PP has not attached the evidence in appendix section of the MR. However, PP has submitted the requested documents as per CL02 of the findings to VVB as evidence for claimed SDGs. 2. PP has updated the SDG indicator 8.3.1 as requested in the revised VCS-MR. 3. There was a typo in Sustainable Development contribution table and the same has been rectified in section 1.11 of the revised VCS-MR.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1) PP has mentioned that the project activity is completed verification of SD VISta for the project activity which VVB verified from the verra registry and also crosscheck the VCS standard v4.4 according to which as per para. 3.17.2 " Where project complete a validation or verification to the Sustainable Development Verified Impact Standard (SD VISta) Program at the same time as a VCS Program validation or verification, they are not required to conduct a separate demonstration of compliance with the requirements set out in this Section 3.17.1". Thus, PP doesn't require to demonstrate the SDG contribution in appendix of the VCS MR. Hence, CAR is closed. 2) PP has rectified the SDG indicator as per official SDG indicators under UNDP. Hence, CAR is closed. 3) PP has rectified the SDG target w.r.t. SDG indicator for SDG 15. Hence, CAR is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Table 3. FARs from this verification

No FAR raised.

APPENDIX 5: SECTION 6.1 VERRA REVIEW

The grouped project, "Installation of high efficiency wood burning cookstoves in Malawi" is submitted to VERRA as a VCS project on (VCS Project ID 2342) applying the VCS methodology VMR0006 version 1.1 /B02/ "Methodology for Installation of High Efficiency Firewood Cookstoves".

This is the fifth monitoring report for the project "Installation of high efficiency wood burning cookstoves in Malawi", The grouped project involves distribution of fuel-efficient improved cook stoves (ICS) in Malawi. The project will disseminate total ICS during this monitoring period is 438,579 out of which number of ICS in operation is 382,002.

Findings (Covering all the issues as per the PRR)	Documents referred	VVB Assessment
Finding 1 Lack of clarity on the determination of B y=1,new,i,j,survey, (Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type i and batch j) and accuracy of the value applied.	1. signed letter from their attorney (/20/) 2. An email confirmation from VERRA (/21/) 3. Confidential - VVB Technical Review Pre-Read (29 July 2024) .pdf 4. indictment__us_v._new combe_et_al._24_cr._567_redacted%20(1).pdf 5. 44.02.05.01.02.01 Verra s6.1 MP1 2342 ops data/24/	1. In response to the finding raised by VERRA, PP has shared a presentation (Confidential - VVB Technical Review Pre-Read (29 July 2024).pdf) /26-1/ with the VVB which states that incorrect MRV data was shared with VVB and VEERA during the initial verification/issuance process. It also states that certain inputs from originally created data were found to be materially different from the MRV submitted data for issuance of VCUs. The presentation states that the original MRV survey data were collected correctly using a cloud-based SAS program called Open Data Kit ("ODK"). In the ODK platform, field data are uploaded and stored in the cloud, providing a clear audit trail of data.

		The authenticity of the new value (0.8161 tonnes/device/year) for parameter $B_{y=1,new,i,j,survey}$ as against the earlier value of 1.33 tonnes/device/year has been affirmed by PP through a duly signed letter (dated 01/10/2024) /20/ from their attorney which states, "Based on our investigation and review of the analysis conducted by C-Quest for the purposes of the Section 6.1 process, we have conveyed to the Authorities that the by new data reflected in the Spreadsheets represents accurate updated by new data." Furthermore, the same letter has been accepted by VERRA (e-mail /21/ dated: 02/10/2024), affirming the authenticity of the new revised values for parameter $B_{y=1,new,i,j,survey}$. The VVB has reviewed all the above-mentioned documents and considers that the new and revised value of the parameter $B_{y=1,new,i,j,survey}$ is lower than the value reported in the earlier submitted MR and FVR. The lower value leads to a conservative calculation of emission reduction generated by the grouped project and is deemed acceptable to the VVB. 2. The monitoring report has been revised by the PP (refer section 4.2), and transparently outlines the process and methods used

		to determine this value the parameter '$B_{y=1,new,i,j,survey}$'. 3. The revised MR (refer section 4.3) and VR (in section 4.4) clearly describes the sampling approach and the confidence and precision level applied for determination of sample size. In the referred section of FVR, VVB has assessed that the survey conducted meets the statistical requirements of 90/10 confidence and complied. 4. As per the applied methodology, this parameter was monitored during the first year of the project implementation and the same value applied in the subsequent monitoring periods and hence this point is not applicable for MP5, as per the methodology VMR0006.
Finding 2 Determination of the proportion of installed cookstoves operating within the period not transparent	1. ER sheet corresponding /02/ to Monitoring report version 1.4 /01/, dated 26/08/2024 2. File 1: 44.03.06 Privileged & Confidential - Stove champion data (26 August 2024) /19/ 3. File 2: 44.03.05 Stoves in Operation - Verified Secondary Data (2024-08-05). /20/	1. In response to the finding raised by VERRA, PP has shared a presentation (Confidential - VVB Technical Review Pre-Read (29 July 2024).pdf) /26-1/ with the VVB which states that an overestimated operational fraction data was shared with VVB and VERRA during the initial verification/issuance process. It also states the design of sampling (during the original sampling process) was done in way, to deliberately inflate operational fraction value. To address the issue of overestimated operational fraction data, PP has applied a value of

		87.10% for the stove operating faction as per the secondary data of other projects. The revised value of stove operating faction is based on the independent review and analysis reports of the values provided stove operating faction used for ICS projects under different GHG program as detailed on page 13 of the presentation (Confidential - VVB Technical Review Pre-Read (29 July 2024).pdf) /26-1/. Furthermore, PP has submitted following documents to the VVB: • File 1: 44.03.06 Privileged & Confidential - Stove champion data (26 August 2024) /22/ • File 2: 44.03.05 Stoves in Operation - Verified Secondary Data (2024-08-05) /23/ However, as per the stove champion follow up survey conducted in latest MP, stoves in operation were 97.56% and as per the secondary data of other projects, stoves in operation percentage were 87.10%. Hence, PP has considered the lowest value of stoves in operation 87.10% on a conservate basis. The VVB has reviewed all the above-mentioned documents along with revised MR /01/ and ER sheet/02/ and considers that the new and revised value (87.10%) of the stove operating fraction is lower than the value (100%) reported in the earlier submitted MR and FVR. The lower value leads to a conservative calculation of emission reduction

		generated by the grouped project and is deemed acceptable to the VVB. • Refer to the assessment for point 1. • Refer to the assessment of point 1.