



**Verified Carbon
Standard**

INSTALLATION OF HIGH EFFICIENCY WOOD BURNING COOKSTOVES IN TANZANIA -PROJECT 3

Document Prepared by

Carbon Check (India) Private Ltd.



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Prepared By	Carbon Check (India) Private Ltd.
Contact	Carbon Check (India) Private Ltd.

2071/38, 2nd Floor, Naiwala, Karol Bagh, New Delhi 110005
projects@carboncheck.co.in

Carbon Check (India) Private Ltd. Corporate office:
Unit No. 1701,
Logix City Centre Office Tower,
Plot No. BW-58, Sector 32,
Noida, Uttar Pradesh – 201 301
India
www.carboncheck.co.in
projects@carboncheck.co.in

Approved By



Vikash Kumar Singh, Compliance Officer

Work Carried Out By

Pallavi Ganesh Gedam (Team Leader, Technical Expert)
Niima Yandu (Local Expert)
Campal Deepak Kadam (Trainee Assessor)
Indumathi C (Technical Reviewer)

Summary:

- **A description of the project**

Project: The project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”, employs VCS methodology; VMR0006 version 1.1 /B02-a/. The project involves distribution of energy efficient cookstoves to the households of Republic of Tanzania. It is intended that under this project high thermal efficient cookstoves will be distributed which will burn wood more efficiently thereby improving thermal transfer to pots, hence saving fuel wood. Apart from halting the progressing deforestation in Tanzania, this project will also reduce health hazards from indoor smoke pollution and time spent on collecting firewood.

- **A description of the validation and verification**

Validation and Verification: C-Quest Capital CR Stoves Private Limited has appointed Carbon Check (India) Private Ltd., to carry out the combined validation and verification of the project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”, with regards to the relevant requirements of VCS Standard Version 4.4 (dated 17-January-2023). The combined validation and verification is based on the desk review of the VCS Joint PD & MR /01-c/ and the corresponding supporting emission reduction calculation spread sheets /02-c/, /03-c/ and other relevant supporting documents made available to the validation and verification team by the project proponent accompanied by on-site interviews. This verification involves the period of 05-August-2021 to 30-June-2022.

- **The purpose and scope of validation and verification**

Purpose: The purpose of a validation is to have a thorough and independent assessment of the proposed project activity against the applicable VCS requirements, particularly the project’s baseline, monitoring plan and compliance with the relevant VCS and host party criteria. These are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions. Carbon Check’s objective is to perform a thorough, independent assessment and validation of the project activity.

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

Scope: Validation scope is defined as an independent and objective review of the Project Description section of the Joint PD & MR. The Joint PD & MR is reviewed against the relevant criteria and guidance documents provided by VCS which include the following: VCS Program Guide (v4.3, dated 17-January-2023), VCS Standard (v4.4, dated 17-January-2023), Program Definitions (v4.3, dated 21-December-2022), Registration & Issuance Process (v4.3, dated 17-January-2023) VCS Validation and Verification Manual (v3.2, dated 19-October-2016) applicable at the time in order to

confirm that the project meets the applicability conditions of the selected baseline and monitoring VCS methodology VMR0006 (version 1.1), also assess the claims and assumptions made in the PD without limitation on the information provided by the project participants.

The scope of the verification is:

- To verify the project implementation and operation with respect to the VCS Joint PD & MR.
- To verify the implemented monitoring plan with the VCS Joint PD & MR 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 method and criteria used for validation and verification**

The validation consists of the following four phases:

- I. A desk review of the project description documents
 - A review of data and information;
 - Cross checks between information provided in Joint PD & MR and information from sources with all necessary means without limitations to the information provided by the project proponent;
- II. Onsite interviews with project stakeholders
 - Interviews with relevant stakeholders in host country with personnel having knowledge with the project development via telephone, email, or direct on-site visits;
 - Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent;
- III. Reference to available information relating to projects or technologies similar to project under validation and review based on the approved methodology being applied for the appropriateness of formulae and accuracy of calculations.
- IV. The resolution of outstanding issues and the issuance of the final Joint Validation & Verification report and opinion.

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) Onsite assessment involving:

- I. Assessment of the implementation and operation of the proposed VCS project activity as per the VCS Joint PD & MR;
- II. Verification of implemented monitoring plan as per the VCS Joint PD & MR and applied baseline and monitoring methodology.
- III. Review of information flows for generating, aggregating, and reporting the monitoring parameters;
- IV. Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the VCS Joint PD & MR;
- V. A cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources;
- VI. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the VCS Joint PD & MR and the selected methodology;
- VII. Review of calculations and assumptions made in determining the GHG data and emission reductions;
- VIII. 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 validation and verification**

A risk-based approach has been followed to perform this Joint Validation & Verification. During the course of Joint Validation & Verification, a total of 09 findings were raised, which includes:

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

All the raised findings have been successfully resolved by the PP.

- **Any uncertainties associated with the validation and verification**

There are no uncertainties associated with the joint validation & verification of the project activity. The validation and verification has been done with a reasonable level of assurance.

The VCS Joint PD & MR/01-c/, emissions reduction calculations /02-c//03-c/ along with the supporting documents provided are in line with all the VCS requirements /B01/. The validation and verification team has detected no further uncertainties or quality restriction.

- **Summary of the validation and verification conclusions**

Carbon Check (India) Private Ltd. concludes the validation and verification with a positive opinion that the VCS Project “ Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3” as described in the Joint PD and MR (version 02.1, dated 02-May-2023) /01-c/, meets all applicable VCS requirements, including those specified in the VCS Standard (v4.4, dated 17-January-2023), relevant methodology, tools, and guidelines.

The selected baseline and monitoring methodology (VMR0006 version 1.1) is applicable to the project and correctly applied. Carbon Check (India) Private Ltd., therefore, requests the registration of the project as a VCS project.

In CCIPL's opinion, the emission reductions reported for the “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3” in the Joint PD and MR are fairly and correctly stated. CCIPL is therefore able to certify that the emission reductions for the project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3” during the period from 05-August-2021 to 30-June-2022, is amount 51,259 tCO₂ equivalent.

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1 INTRODUCTION

1.1 Objective

C-Quest Capital CR Stoves Private Limited has appointed the VVB, Carbon Check (India) Private Ltd. to perform a joint validation and verification of the VCS grouped project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”. This report summarizes the findings of validation verification of the project, performed based on the VCS Program Guide (v4.3, dated 17-January-2023), VCS Standard (v4.4, dated 17-January-2023), Program Definitions (v4.3, dated 21-December-2022), Registration & Issuance Process (v4.3, dated 17-January-2023), VCS Validation and Verification Manual (v 3.2, dated 19-October-2016). Validation is required for all VCS project activities intending to register project under the VCS program. The purpose of a joint validation and verification is to have a thorough and independent assessment of the proposed project against the applicable VCS requirements, in particular, the project’s baseline, monitoring plan and the project’s compliance with relevant VCS and host Party criteria. These are validated in order to confirm that the project design and monitoring report, as documented, is sound and reasonable and meets the identified criteria. Validation and verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions, VCU.

Through this joint validation and verification activities, it is to be confirmed that:

- The project is implemented as described in the VCS Joint PD & MR /01-c/
- 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 joint validation and verification followed the requirements of the current version of the VCS standard version 4.4 and VCS program guide (version 4.3)/B01/ to ensure the quality and consistency of the joint validation and verification work and the report.

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the project description section of the joint PD & MR/01-c/, project design, ex-ante emission reduction calculation spreadsheet/02-c/,

the project's baseline study and monitoring plan and other relevant documents. The joint PD & MR is reviewed against the relevant criteria and decisions by the VCS Program, and against the approved baseline and monitoring methodology. The verification of this project is based on the Monitoring Report section of the joint PD & MR for this monitoring period, ex-post emission reduction calculation spreadsheets /03-c/, supporting documents made available to the validation and verification team and information collected through performing on-site interviews. Furthermore, publicly available information was considered as far as available and required. Carbon Check has employed a risk-based approach in the combined validation and verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The combined validation and verification of this project is based on the Joint PD & MR /01-c/ emission reduction calculation spreadsheets /02-c/, /03-c/, supporting documents made available to the validation and verification team /02 - / and information collected through performing onsite visit interviews. Furthermore, publicly available information was considered as far as available and required.

The joint validation and verification are carried out on the basis of the following requirements, applicable for this project:

- VCS Program Guide v4.3
- VCS Standard v4.4
- Program Definitions v4.3
- Registration & Issuance Process v4.3
- VCS Validation and Verification Manual v 3.2
- VCS Methodology: VMR0006.: Methodology for Installation of High Efficiency Firewood Cookstoves” (Version 1.1)/B02/.
- 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 joint VCS Joint PD & MR.
- 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 ex-post 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 validation and verification report and applicable VCS Validation and Verification Deeds of Representation.

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

1.3 Reasonableness of Assumptions and Level of Assurance

The joint validation and verification report is based on the Joint PD & MR /01-c/, supporting documents /02//21/ made available to the Validation and Verification team and information collected through performing interviews.

The combined validation and verification has been planned and organized 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 /B01-a/.

1.4 Summary Description of the Project

The project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3” is a grouped project which employs of the VCS methodology; VMR0006 version 1.1 /B02/. The project activity includes the distribution of fuel-efficient improved cookstoves (ICS) in Tanzania. The ICS distributed through this project will replace the baseline cookstoves i.e., three-stone fire or conventional open fire. An approximately 100,000 ICS through this project will be distributed and installed in the households of Tanzania. It is intended that under this project activity single or double pot TLC-CQC Rocket Stove will be distributed, as provided in Joint PD & MR section 1.1/01-c/. PP has considered each ICS distributed as a project activity instance. The start date for the project is 05-August-2021 /04/, which is the date of installation/registration of the first stove in the project.

The project proponent for the project activity is C-Quest Capital CR Stoves Private Limited, owns the rights to VERs /06/.

The annual average GHG emission reduction estimated is 285,339 tCO_{2e} and total 2,853,391 tCO_{2e} for the ICS project activity over the entire fixed crediting period of 10 years.

The project activity has been implemented as described in the VCS joint PD and MR /01-c/ and the emission reductions are calculated conservatively as per the applied methodologies /B02/. The total number of emission reductions for the monitoring period (05-August-2021 to 30-June-2022) are 51,259 tCO_{2e}.

2 VALIDATION AND VERIFICATION PROCESS

2.1 Method and Criteria

C-Quest Capital CR Stoves Private Limited has appointed the VVB, Carbon Check (India) Private Ltd., to carry out the joint validation and verification of the project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”, with regards to the relevant requirements of VCS Standard Version 4.4 /B01-a/.

The joint validation and verification include a thorough and independent assessment of the proposed project against the applicable VCS requirements/B01/, in particular, the project’s baseline, additionality, monitoring plan and the project’s compliance with relevant VCS and host party criteria. The validation involves assessment of the project and to confirm that the project meets the applicability conditions of the selected methodology, VMR0006. version 1.1 /B02/ and assess the claims and assumptions made in the Joint PD & MR /01-c/ without limitation on the information provided by the project participants. The overall joint validation and verification was conducted using Carbon Check’s internal procedures.

The Joint validation and verification consist of the following three phases:

1. Completeness check and desk review of the joint PD & MR, monitoring plan, 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 visit 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 joint PD & MR.
 - Review of information flows for generating, aggregating, and reporting the monitoring parameters.
 - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with the monitoring plan of the project.
 - 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 VCS joint PD & MR and methodology requirements.
3. Resolution of outstanding issues and the registration and issuance of the final joint validation and verification report and as applicable the VCS validation and verification Deeds of Representation.

2.2 Document Review

During the document review, CCIPL has applied standard auditing techniques including but not limited to document reviews and on-site interviews, review of the applicable/applied methodology and its underlying formulae and calculations to assess the quality of information provided. The validation and

verification was performed primarily based on the review of the VCS joint PD & MR 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 MP 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 Joint PD and MR /01-c/ was initially reviewed and CCIPL requested the PP to present the supporting information and documents /02/-/18/. The documents were reviewed by CCIPL. Through the process of the validation and verification, the revised Joint PD & MR, monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by the CCIPL 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 joint PD & MR /01-c/ and any supporting documents.

Table 01: On-site interview process

SR. No.	Date	Name	Organization	Topic	Interviewer
/01/	18-April-2023	Akhilesh Joshi	C-quest Capital	<ul style="list-style-type: none"> • Project Design • Project Implementation status • Project start date and Project Location • Baseline Scenario • Baseline Identification and Additionality • Qualification and Training • Monitoring and reporting documentation 	Campal Kadam and Niima Yandu

				<ul style="list-style-type: none"> • Quality Assurance – Management and operating system • Social and Environmental Impacts • Local Stakeholders meeting process • Compliance with relevant laws • Roles and responsibility 	
/02/	18-April-2023	Chandan Sah	C-quest Capital	<ul style="list-style-type: none"> • 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 	Campal Kadam and Niima Yandu
/03/	18-April-2023	Saimon Venance	C-quest Capital	<ul style="list-style-type: none"> • Project Design • Project Implementation status 	Campal Kadam and Niima Yandu

				<ul style="list-style-type: none"> • 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 	
/04/	18-April-2023	Maria Samson	C-quest Capital	<ul style="list-style-type: none"> • 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 	Campal Kadam and Niima Yandu

				<ul style="list-style-type: none"> • Social and Environmental Impacts • Local Stakeholders meeting process • Compliance with relevant laws • Roles and responsibility 	
/05/	18-April-2023	Emilia Challe	C-quest Capital	<ul style="list-style-type: none"> • 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 	Campal Kadam and Niima Yandu
/06/	18-April-2023	Riziki Kassim	Choose Water (Implementing partner)	<ul style="list-style-type: none"> • Project Implementation status • Monitoring survey • Spot audits • Grievance redressal 	Campal Kadam and Niima Yandu

				<ul style="list-style-type: none"> • Replacement policies 	
/07/	18-April-2023	Benson Mlowez	Choose Water (Implementing partner)	<ul style="list-style-type: none"> • Project Implementation status • Monitoring survey • Spot audits • Grievance redressal • Replacement policies 	Campal Kadam and Niima Yandu
/08/	18-April-2023	Bruno Punteh	Choose Water (Implementing partner)	<ul style="list-style-type: none"> • Project Implementation status • Monitoring survey • Spot audits • Grievance redressal • Replacement policies 	Campal Kadam and Niima Yandu
/09/	18-April-2023	Ayusto Kahonyo	Choose Water Contractor (Implementing partner)	<ul style="list-style-type: none"> • ICS distribution • Grievance redressal • Replacement policies 	Campal Kadam and Niima Yandu
/10/	18-April-2023	Aisa Chale	Choose Water Contractor (Implementing partner)	<ul style="list-style-type: none"> • ICS distribution • Grievance redressal • Replacement policies 	Campal Kadam and Niima Yandu
/11/	18-April-2023	Zakayo Frank Mwaitosya	Local Stakeholder	<ul style="list-style-type: none"> • Local Stakeholder Consultation • Social and Environmental Impacts 	Campal Kadam and Niima Yandu
/12/	19-April-2023	Miledi D Maselo	Local Stakeholder	<ul style="list-style-type: none"> • Local Stakeholder Consultation • Social and Environmental Impacts 	Campal Kadam and Niima Yandu
/13/	19-April-2023	Ana Mdolo Project stove ID: CQCVTZ0013431	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu

/14/	18-April-2023	Mwajuma Msongole Project stove ID: CQCVTZ0018088	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/15/	18-April-2023	Tabia Hayola Project stove ID: CQCVTZ0013132	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/16/	18-April-2023	Rose Kabuje Project stove ID: CQCVTZ0010027	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/17/	18-April-2023	Roda Mwakalambo Project stove ID: CQCVTZ0010883	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/18/	18-April-2023	Neema Nkulikwa Project stove ID: CQCVTZ0011199	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/19/	18-April-2023	lozi Swilwamba Project stove ID: CQCVTZ0024050	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/20/	18-April-2023	Balani Loli Project stove ID: CQCVTZ0020290	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/21/	18-April-2023	Aziza Mdolo Project stove ID: CQCVTZ0020590	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/21/	19-April-2023	Luthi Sinkamba Project stove ID: CQCVTZ0120439	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu
/22/	19-April-2023	Maria Siame Project stove ID: CQCVTZ0120673	End User (Monitoring survey)	Monitoring survey of the project activity and grievance mechanism.	Campal Kadam and Niima Yandu

Apart from the monitoring survey, VVB has also interviewed the beneficiary and confirmed the baseline cookstove (i.e Three stone fire) used prior to the implementation of the project stove. 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 /B02-a/.

2.4 Site Visits

Carbon Check has conducted an on-site inspection to confirm the implementation and operation status of the grouped project. A reasonable level of assurance has been maintained through the on-site visit for the purpose of validation and verification as follows:

- An assessment of the implementation and operation of the grouped project through on-site interviews with the representatives of project proponent and end users.
- Confirmation of the pre-project scenario
- Confirmation of the applicability of the methodology and monitoring and controlling instruments and operational arrangements.
- Confirm the data collection procedures are implemented in accordance with the MP
- Assessment of the project boundaries
- Assessment of the monitoring provisions by checking the monitoring arrangement.
- A review of information aggregating and reporting of the monitoring parameters
- A check of the observations of monitoring practices against the requirements of the VCS joint PD & MR and the applied monitoring methodologies
- A review of calculations and assumptions made in determining the GHG data and ERs, and
- An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters

2.5 Resolution of Findings

This section summarizes the findings from the joint validation & verification of the project activity. In this section the findings from the document review, assessments and onsite interviews are provided. Material discrepancies identified in the course of the validation are addressed either as CARs, CLs or FARs.

- 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 validation & verification team identified 02 CARs and 07 CLs. All CAR and CLs raised by Carbon Check during this joint validation & verification have been resolved by the PP. Please refer to Appendix 4 below for the details of the CARs/CLs and their closure. If this was not completed, the ERs cannot be certified and recommended for issuance to the VCS Registry.

2.5.1 Forward Action Requests

A forward action request (FAR) should be issued, where:

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

CC IPL has not raised any FAR during this joint validation and verification.

3 VALIDATION FINDINGS

3.1 Project Details

The project “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3” employs baseline and monitoring methodology; VRM0006 version 1.1 /B02/. The project activity includes the distribution of fuel-efficient improved cookstoves (ICS) in Tanzania. The ICS distributed through this project will replace the baseline cookstoves i.e., three-stone fire or conventional open fire. An approximately 100,000 ICS through this project will be distributed and installed in the households of Tanzania. It is intended that under this project activity single or double pot TLC-CQC Rocket Stove will be distributed, as provided in Joint PD & MR section 1.1/01-c/. The implementation schedule is given in section 1.1 of the VCS Joint PD & MR. 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 TLC-CQC Rocket Stove will burn the wood efficiently, which improves the thermal energy direct to the pot, so conserving non-renewable biomass. Section 1.1. of the VCS Joint PD & MR contains a clear summary description of the projects. The completeness and accuracy of the project description was validated through on-site interviews.

The project proponent is C-Quest Capital CR Stoves Private Limited which will be holding the carbon credits generated from the project activity as per section 1.7 of VCS joint PD & MR /01-c/.

The start date for the project is 05-August-2021 /04/ which is the date of installation of first stove under this project activity.

The crediting period starts on 05-August-2021 /04/, which is the same day on which the first stove was installed, and lasts for 10 years, fixed. This is in accordance with paragraph 3.9.1 of the VCS standard version 4.4/B01-a/ for non-AFOLU projects.

The indication of the project activity instance location and the geographic boundaries is provided in section 1.12. of the VCS Joint PD & MR. They are in accordance with paragraph 3.11.1 of the VCS Standard and can confirm that the project activity boundary is uniquely defined. The project location and geographic boundary of the project is Republic of Tanzania. This is in accordance with paragraph 3.6.10 of the VCS standard version 4.4 /B01-a/, which requires projects to have one or more clearly defined geographic areas within which new project activity instances may be developed.

The VCS Joint PD & MR clearly indicates the project scope, which is scope 3: Energy demand, and more specifically demand-side energy efficiency project. The project includes multiple project activity instances or locations but is developed as a grouped project, this is indicated in section 1.2. of the VCS Joint PD & MR /01-c/.

The proposed project is an energy efficiency project activity and is located in a non-Annex I country. Therefore, the ER generated would not be part of an emission trading program, nor it is located in a jurisdiction or sector with binding limits. The project proponent intends to claim carbon credits under the VCS programme only for the emission reductions achieved. The PP states in the VCS Joint PD & MR that the emission reductions generated by this project will not be used for compliance with an emission-trading program or to fulfil binding commitments. In fact, at the time of this combined validation and verification, no binding targets have been set by Tanzania under the Kyoto protocol, as indicated in the UNFCCC website /B05.

The project proponent has declared that the project is not in registration under any other GHG program. The validation and verification team has checked the UNFCCC database of registered projects or projects under validation and was able to confirm that the listed projects are not the proposed project activity.

The proposed project activity instances do not generate another form of environmental credit. The project proponent indicates in the VCS Joint PD & MR that the project does not intend to generate any other form of GHG related environmental credit other than those claimed under this VCS project.

PP will inform the manufacturers of the project stoves and the implementation partner that the Verified Carbon Units (VCUs) may be issued for the greenhouse gas emission reductions and removals under this grouped project. For these VCUs, the PP will be claiming carbon credits under VERRA. PP will further apprise that the ownership of these credits lies exclusively with C-Quest Capital CR Stoves Private Limited to avoid any potential risk of double claiming of Scope 3 emissions.

The Validation and Verification team has been provided the copies of the emails /20/ this has been checked and verified by the verification team deemed appropriate and in line with the VCS standard requirements/B01/.

3.2 Participation under Other GHG Programs

It has been confirmed through the description in Joint PD & MR /01-c/ 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 project is not participating under any other GHG programs.

3.3 Safeguards

3.3.1 No Net Harm

As identified by PP in section 2.1 of the Joint PD & MR /01-c/, the project has no negative impact.

The validation and verification team confirms that the project does not pose any potential negative environmental and socio-economic impacts. A local stakeholders meeting was conducted for the project and there was no negative feedback.

3.3.2 Local Stakeholder Consultation

The local stakeholder consultation was held between 26-October-2020 and 25-November-2020, details of which have been provided in the section of 2.2 of the joint PD & MR /01-c/.

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 joint PD & MR /01-c/.

The Project Proponent has reported its feedback and grievance redressal procedure in Section 2.2 of the joint PD & MR /01-c/, and the policy is outlined in the document “Project Grievance Redress Mechanism” /18/. In the opinion of the assessment team, based on the onsite inspection 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’s contact information and the understanding that they should contact the organization with any problems, questions, or grievances. During the onsite inspection interviews and based on document review /01/, /18/, it can be confirmed that grievance addressal procedure has been designed and is implemented according to section 2.2 of the Joint PD & MR /01-c/ and that it is effective in its aim.

VVB confirms the procedure and method for engagement, method for documenting the outcomes of local stakeholders’ consultation and account of all inputs received. VVB 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/08/, this has been checked by the validation and verification team during the on-site inspection interviews. Hence VVB deemed the local stakeholders ongoing communication as appropriate.

3.3.3 Environmental Impact

No negative environmental impacts have been identified from the project and Environment Impact Assessment is not required for the project.

3.3.4 Public Comments

The public commenting period for the project was from 04-August-2022 to 03-September-2022. No public comments were received for the project.

3.3.5 AFOLU-Specific Safeguards

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

3.4 Application of Methodology

3.4.1 Title and Reference

The Project provides for projects that use one of the VCS approved methodology:

- VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1

The associated tools and guideline documents in the Project include:

- Tool 30: Calculation of the fraction of non-renewable biomass, Version 3.0
- Standard: Sampling and Surveys for CDM project activities and programmes of activities, Version 09.0

3.4.2 Applicability

Table 02: The applicability criteria of the applied methodology VMR0006 version 1.1 is justified as below:

Applicability criterion	How the project complies	Means of validation
Project activities shall be implemented in domestic premises or in community-based kitchen.	The proposed project involves deployment of ICS only in households.	The Validation and verification team through document review and on-site interviews can confirm that the ICS TLC-CQC Rocket stove will only be distributed in the households thereby confirming the methodology applicability condition. Thus, the eligibility criteria has been met for the new project activity instances under this grouped project.
The project stove shall have specified high-power thermal efficiency of at least 25% per the manufacturer's specifications and shall exclusively use woody biomass and can be single pot or multi-pot;	TLC-CQC Rocket stoves planned to be installed under this project are single pot firewood cookstoves that have an efficiency of 34.5% as per the manufacturer's specifications.	The validation and verification team reviewed the stove efficiency test performed by Aprovecho Research Centre on the TLC Rocket Stove/10/ and also the manufacturer specification/05/ which confirms that the ICS distributed to the end users has 34.5% thermal efficiency. Thus, the eligibility criteria has been met for the new project activity instances under this grouped project.

<p>Both 'Projects' and 'Large Projects' can use the methodology</p>	<p>Estimated average annual emission reductions for the grouped project activity are lesser than 300,000 tonnes CO₂e per year. Therefore, proposed project qualifies the "Projects" criteria.</p>	<p>The validation and verification team, through document review and on-site interviews can confirm that the ICS TLC-CQC Rocket stove will only be distributed in the households and each ICS distributed under this grouped project will be considered as project activity instance. The average annual GHG emission reduction for the grouped project is less than 300,000 tCO₂e and hence the project is classified as 'Project' as per section 3.10.1 of VCS standard version 4.4. Thus, the eligibility criteria has been met for the new project activity instances under this grouped project.</p>
<p>Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports, or statistics;</p>	<p>Non-renewable biomass has been used since 31 December 1989 in Tanzania as demonstrated in VCS-PD.</p>	<p>The validation and verification team reviewed the FAO Global Forest Resources Assessment 2010 Country Reports, which demonstrates the use of Non-renewable biomass since 1989 in Tanzania. This is deemed appropriate to the validation and verification team. Thus, the eligibility criteria has been met for the new project activity instances under this grouped project</p>
<p>For the specific case of biomass residues processed as a fuel (e.g., briquettes, wood chips), it shall be demonstrated that: (a) It is produced using exclusively renewable biomass (more than one type of biomass may be used). (b) The consumption of the fuel should be monitored during the crediting period and (c) Energy use for renewable biomass processing (e.g., shredding and compacting in the case of briquetting) may be considered as equivalent to the upstream emissions associated with the processing of the displaced fossil fuel and hence disregarded.</p>	<p>Not applicable. The ICS is introduced as energy efficiency measure to replace baseline stoves and reduce the use of non-renewable biomass for combustion.</p>	<p>Not applicable</p>
<p>The VCS Joint PD & MR shall explain the proposed method for distribution of project devices including</p>	<p>The project proponent will ensure that every cookstove that will be distributed within the project area will have alphanumeric unique ID.</p>	<p>The validation team by means of on-site audit interviews confirms that the proposed method for distribution of project devices includes the method to avoid double</p>

<p>the method to avoid double counting of emission reductions such as unique identifications of product and end-user locations (e.g. programme logo) The above criteria is as per below VCS meth requirement and para 7 of latest version of meth AMS II.G version 12 is followed. (Additionally, applicability criteria numbers 8 and 9 set out in Section 2.2 of AMS II.G, version 11.1 shall apply)</p>	<p>In addition, the project has been cross checked against other CDM project activity operating in the country using the UNFCCC, the Gold Standard, and other relevant voluntary carbon schemes to ensure that the ICS is not included in any other CDM project activity or voluntary project activity. Also, the approach adopted for distribution of cookstoves will be elaborately described in the monitoring report.</p>	<p>counting of emission reductions such as unique identifications of product, end-user details (name, address etc) and GPS referenced location. Therefore, the Validation and Verification team confirms that the record keeping system will eliminate double counting</p>
<p>The VCS Joint PD & MR shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices. The above criteria is as per below VCS meth requirement and para 8 of latest version of meth AMS II.G version 12 is followed. (Additionally, applicability criteria numbers 8 and 9 set out in Section 2.2 of AMS II.G, version 11.1 shall apply)</p>	<p>The stove manufacturers/ wholesale providers/ end users shall sign an undertaking stating clearly that the PP or an entity authorized by it shall be the sole owner of the VCU's arising from the project.</p>	<p>By the means of on-site audit interviews and the review of end user agreement /06/, /17/ the Validation and Verification team confirms that the proposed procedures prevent double counting of emission reductions.</p>

3.4.3 Project Boundary

The Project boundary is defined as per VMR0006. "Methodology for Installation of High Efficiency Firewood Cookstoves, (Version 1.1)".

The sources of greenhouse gas identified in the Joint PD & MR /01-c/ are deemed to be appropriate and assessed below:

Table 03: Project Boundary

Source		Gas	Included?	Justification/Explanation
Baseline	Emission from use of non-renewable biomass/Fossil fuel	CO ₂	Yes	Major source
		CH ₄	Yes	Major source
		N ₂ O	Yes	Major source
		Other	No	No other source identified
Project	Emission from use of non-renewable biomass	CO ₂	Yes	Major source
		CH ₄	Yes	Major source
		N ₂ O	Yes	Major source
		Other	No	No other source identified

The project boundary consists of the physical, geographical locations of the distributed ICS limited to Tanzania. This includes: “The Nonrenewable biomass used by the project cooking system”.

3.4.4 Baseline Scenario

The project activity will use methodology VMR0006 version 1.1/B02-a/. This is the most recent valid version available on the VERRA site at the time of this combined validation and verification. Since the project activity that apply the indicative simplified methodology VMR0006 version 1.1, the baseline scenario for this project activity is the one indicated by this methodology, i.e. “*The baseline scenario is the continued use of non-renewable wood fuel (firewood/charcoal) or fossil fuel (coal/kerosene) by the target population to meet similar thermal energy needs as provided by project cookstoves in absence of project activity.*”. The baseline described in the PD complies with the requirements of the methodology, as the energy baseline is the existing level of consumption of non-renewable biomass used by the cooking systems currently in use and which is used in the absence of the project activity.

VVB based on review of the VCS Joint PD & MR /01-c/ confirms that the documentary evidence used in determining the above baseline scenarios are relevant, and correctly quoted and interpreted in the project description. The baseline scenario for the applied methodology were also confirmed through on-site interviews with the end users of technologies and representatives of PP.

VVB confirms that the baseline scenario opted by the grouped project is in accordance with the requirements of the applied methodology /B02-a/ and is justified.

3.4.5 Additionality

The additionality of the project has been demonstrated by the PP as per the methodology section 7 /B02-a/. The methodology uses activity method for the demonstration of additionality. As per the methodology, the project activity falls under the positive list of technologies and project activity types that are defined as automatically additional. PP has demonstrated regulatory surplus in accordance with the rules and requirements regarding regulatory surplus set out in the latest version of the VCS Standard /B01-a/ and

it can be confirmed that the project is not mandated by any law, statute, or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute, or other regulatory framework.

Furthermore, the project activity meets all the applicability conditions of the applied methodology VMR0006, version 1.1 and distributes stoves at zero cost to the end-users and has no other source of revenue other than the sale of GHG credits. Hence the project qualifies under positive list and deemed additional.

The additionality has also been included in the eligibility criteria in the PD. Each project activity instance shall meet the requirements of eligibility criteria in order to be included in the grouped project. As per the program definitions of VCS/B01-a/ 'Grouped Project' is defined as, "A project to which additional instances of the project activity, which meet pre-established eligibility criteria, may be added subsequent to project validation" and Project Activity Instance (Instance) is defined as, "A particular set of implemented technologies and/or measures that constitute the minimum unit of activity necessary to comply with the criteria and procedures applicable to the project activity under the methodology applied to the project". Therefore, each ICS is considered as a project activity instance.

Therefore, through document review and on-site interviews with the PP representatives, Validation and Verification team confirms that the grouped project is additional, and all the project activity instances that will be included in the grouped project will meet the eligibility criteria. "Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3" is additional – the emission reductions achieved by the project would be below those that would have occurred without the implementation of the project.

3.4.6 Quantification of GHG Emission Reductions and Removals

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the Joint PD & MR /01-c/. The emission reductions of the project instances of the project would be calculated using the formulae mentioned in the applied methodology; VMR0006 (version 1.1) /B02-a/.

VVB based on the review of the Joint PD & MR /01-c/, confirms that the formulae are correctly presented for the determination of emissions reductions at project instance level. The parameters and equations presented in the Joint PD & MR /01-c/, as well as other applicable documents, have been compared with the information and requirements presented in the methodology respectively. An equation comparison has also been made to ensure consistency between all the formulae presented in the Joint PD & MR/01-c/ and ER spreadsheet/02-c/ and methodology VMR0006 (version 1.1) /B02-a/.

The improved cookstove is introduced as energy efficiency measure in the project, therefore equations 1 and 2 of the methodology VMR0006 will be applied to calculate the net GHG emission reductions.

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

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 ₂ e
$ER_{y,i,j}$	=	Emission reductions by improved cookstove of type i and batch j during year y in t CO ₂ e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times (EF_{wf,CO_2} + EF_{wf,non\ CO_2}) \times N_{y,i,j} \times 0.95 \quad \text{Equation (2)}$$

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}) ¹
$NCV_{wood\ fuel}$	=	Net calorific value of the non-renewable woody biomass that is substituted or reduced (IPCC default for wood fuel, 0.0156 TJ/tonne) ²
EF_{wf,CO_2}	=	CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO ₂ /TJ) ³
$EF_{wf,non\ CO_2}$	=	Non-CO ₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO ₂ /TJ) ⁴
$N_{y,i,j}$	=	Number of improved cookstoves of type i and batch j operating during year y
0.95	=	Discount factor to account for leakage

¹ Default values endorsed by designated national authorities and approved by the Board are available at <https://cdm.unfccc.int/DNA/fNRB/index.html>

² 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 1 Introduction

³ 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion

⁴ 2006 IPCC Guidelines for National Greenhouse Gas Inventories; Volume 2 Energy, Chapter 2 Stationary Combustion

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

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times \left(\frac{\eta_{new,y,i,j}}{\eta_{old}} - 1 \right) \quad \text{Equation (4)}$$

Where

- η_{old} = Efficiency of baseline cookstove
- $\eta_{new,y,i,j}$ = Efficiency of the improved cookstove type i and batch j determined through water boiling test (WBT) during year y
Alternatively, efficiency may be determined using Equation 4.
- $B_{y=1,new,i,j,survey}$ = 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.

$$\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94 \quad \text{Equation (5)}$$

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.

This project would achieve an estimated total emission reduction of 2,853,391 tCO₂e in the 10-year crediting period and an average of 285,339 tCO₂e per year, as indicated Joint PD & MR /01-c/ and also in the ex-ante ER spread sheet /02-c/.

In conclusion, all values used in the VCS Joint PD & MR to calculate emission reductions are considered reasonable in the context of the proposed project "Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3" and calculation approach is correct.

3.4.7 Methodology Deviations

No methodology deviations have been applied to the project activity.

3.4.8 Monitoring Plan

The project employs baseline and monitoring methodology namely VMR0006, version 1.1 /B02/. According to section 6.1 and 6.2 of Joint PD & MR /01-c/ the parameters determined ex-ante and those to be monitoring ex-post as per the requirements of the methodology are given below.

The following parameters are determined ex-ante and mentioned in section 6.1 of the PD.

Table 05: Parameters Determined ex-ante

Parameter	Unit	Value	Assessment
$f_{NRB,y}$	Fraction	0.89	-Fixed ex-ante -The value is calculated by third party C4EcoSolutions in line with the applicable methodological CDM Tool 30, version 3.0, using latest available versions of Food and Agriculture Organization (FAO) report, UN Data and other publicly available data that have been published by reliable sources.
$NCV_{wood\ fuel}$	TJ/tonne	0.0156	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
$EF_{wf,CO2}$	tCO ₂ /TJ	112	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
$EF_{wf,non\ CO2}$	tCO ₂ /TJ	26.23	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines 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. - Stove efficiency tests performed by Aprovecho Research Centre on the TLC Rocket Stove

Assessment of $f_{NRB,y}$

PP has contracted an independent party “C4 EcoSolutions” for a study and calculation of f_{NRB} as per CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v03.0). Validation and Verification team confirms that it has checked f_{NRB} calculation report/spread sheet /11/ prepared by C4 EcoSolutions.

As per the applied methodological tool, in the case of ex-ante calculation of f_{NRB} , the parameter f_{NRB} shall be estimated using the most recent historical year for which data is available. Review of f_{NRB} report /11/ prepared by C4 EcoSolution revealed that all the data used for the calculation is latest available data at the time of combined validation and verification.

Review of f_{NRB} calculation report/spread sheet /11/ prepared by C4 EcoSolutions reveals that the estimation of non-domestic fuel consumption was derived from the UN Statistics Division wood consumption and population statistics, in combination with the national average per capita woody biomass consumption. The non-domestic fuelwood consumption estimates provided by the UN Statistics Division have been conservatively applied, disregarding the additional deforestation likely occurring as a result of shifting agriculture and from informal or illegal harvesting. Other categories of non-domestic consumption reported by UN Statistics Division have been conservatively excluded due to apparent double accounting with domestic consumption. The total woody biomass consumption for Tanzania, as per the f_{NRB} report /11/ prepared by C4 EcoSolution is estimated to be 43,695,516 t/yr, which is deemed appropriate to the VVB.

In Tanzania six ecological zone has been found i.e., tropical dry forest, tropical moist forest, tropical mountain system, Tropical rainforest, Tropical shrubland and water and the same was verified by referring the FAO data through web-research. VVB has noted that in the report /11/ geospatial data products for Tanzania were analysed to estimate Tanzania renewable biomass. The woody cover from all areas defined as “forest” (>10%) cover “other wooded land” (5-10% cover) as well as “other land” (<5% cover), according to the FAO definitions for 2000 and 2018 was estimated using Hansen/UMD/Google/USGS/NASA spatial data, which is derived from Hansen et al.

As no woody cover was excluded from the analysis based on a threshold of minimum cover, disaggregation into the FAO forest categories would have been superfluous. The woody cover was disaggregated according to the FAO global ecological zones and the total woody cover extent was calculated for each ecological zone, within the protected areas and within areas that are either accessible or geographically remote. The woody cover is estimated as a percentage for the whole country within 30 x 30 m resolution grid cells. The woody cover extent for each cell is therefore calculated as the woody cover percentage multiplied its area (0.09 ha).

The default age-weighted mean annual increment (MAI) estimates of each ecological zone, as reported by the IPCC, was used for the study, checked and confirmed by the VVB. The proportion of forest stand ages above and below 20 years old were estimated for each ecological zone by extrapolating the observed forest gain extents between 2000 and 2012 to a 20-year period. The resulting average MAI estimates for Tanzania are 1.62, 0.96, 2.06, 2.61 and 0.89 t/ha/year for tropical dry forest, tropical moist forest, tropical mountain system, tropical rainforest and tropical

shrubland, respectively (Table 2). An area equivalent to 1.8% of Tanzania's total forest cover is categorized by the FAO global ecological zones as covered by water, but this does not perfectly align with the water bodies in the country. There is, therefore, woody cover that is a potential source of fuelwood supply which is currently incorrectly categorized as being in water.

As per paragraph 13 of the Tool 30 version 03.0,

“If the fNRB value is estimated at the national level, as a cross check, project proponent shall compare the value of estimated NRB with the product of i) total average above ground biomass tonnage of the area of forest areas deforested in recent past (tonnes/ha), and ii) most recent available observed annual rate of deforestation (ha/yr). If the estimated NRB value is more than 10% above the value calculated as per the product of biomass and deforestation rate, justification shall be provided for the higher value for NRB.”

CC IPL based on review of fNRB report prepared by C4 EcoSolutions (Pty) Ltd /11/ confirms that the above requirement of tool 30 has been followed and the justification has been provided, which is deemed acceptable to the validation team. The excerpt of fNRB report /11/ is as below.

“The resulting non-renewable biomass (NRB) value was compared with the top-down product of average above-ground biomass (49.0 t/ha) and the most recent annual deforestation data (469,000 ha/year) . NRB, as calculated in this report according to the latest CDM Tool 30, was found to be 38,850,340 t/year, which is significantly greater than the cross-check results based on deforestation (22,784,020 t/year). It is expected that the cross-check estimate of biomass loss from deforestation would grossly under-estimate the actual extent of non-renewable biomass consumption as it only considers the average biomass stocks from areas that are completely deforested. Unsustainable wood harvesting that results in forest degradation, and significant reductions in biomass stocks, but not complete deforestation are not considered in the cross-check.”

Table below provides the validated total, protected and remote forest cover extent, mean annual increment and renewable biomass by ecological zone for Tanzania.

Ecological Zone	Total forest cover (ha)	Protected cover (ha)	Remote cover (ha)	MAI (t/ha/yr)	Renewable biomass (t/yr)
Tropical dry forest,	7,675,046	4,470,971	2,317,439	1.62	1,435,076
Tropical moist forest	7,414,105	3,283,236	2,857,792	0.96	1,222,749
Tropical mountain system	1,685,806	486,700	787,465	2.06	849,929
Tropical rainforest	703,855	152,828	268,828	2.61	737,623
Tropical shrubland	2,575,872	1,076,259	974,826	0.89	466,400
“Water”	376,959	111,161	185,396	1.66	133,398
Total	20,431,643	9,581,156	7,391,746	-	4,845,176

The difference between woody biomass consumption and renewable biomass is considered to be non-renewable. Non-renewable biomass utilisation in Tanzania is, therefore, validated as 38,850,340 t/yr. The fraction of non-renewable biomass is the quotient of the non-renewable and the total biomass. The fraction of non-renewable biomass for Tanzania is, therefore, validated as 0.89.

From the review of this report/spread sheet /11/ and interviews with the CME and C4 EcoSolutions (Pty) Ltd, validation team confirms the following:

- The report has been prepared by an independent party (i.e., C4 EcoSolutions (Pty) Ltd.), who is experienced in conducting such study.
- The detailed methodology (including the calculation) of conducting the study has been provided in the report /spread sheet /11/.
- The study has been done in accordance with the CDM Methodological Tool: “Calculation of fraction of non- renewable biomass” (v03.0) including the equitation used and the data source as required by the tool.
- All the reference and data source used for the calculation/study has been listed and assessed by the VVB.

In the opinion of Validation and Verification team, the calculation of f_{NRB} is correct and in line with the CDM Methodological tool: Calculation of the fraction of non-renewable biomass (v03.0) and thus acceptable to the Validation and Verification team.

This grouped project would achieve a total emission reduction of 2,853,391 tCO_{2e} in the 10-year crediting period and an average of 285,339 tCO_{2e} per year as indicated in the Joint PD & MR /01-c/ and also in the ex-ante ER spread sheet/02-c/.

In conclusion, all values used in the Joint PD & MR /01-c/ to calculate emission reductions are considered reasonable in the context of the proposed grouped project “Installation of high efficiency wood burning cookstoves in Tanzania- Project 3” and calculation approach is correct

Table 07: Parameters monitored ex-post

Sl.No.	Parameters/01/	Methodology(B02)	Description/01/
1	$N_{y,i,j}$	VMR0006	Description:-Number of project devices of type <i>l</i> and batch <i>j</i> operating during year <i>y</i> . Monitoring Method and Frequency of monitoring: - Measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision according to version 9 of sampling standard “sampling and surveys for CDM project activities and programme of activities”, version 9.
2	$\eta_{new,y,i,j}$	VMR0006	Description :- Efficiency of the improved cookstove type <i>l</i> and batch <i>j</i> determined through water boiling test (WBT) during year <i>y</i> .

			Monitoring Method and Frequency of monitoring: - To adopt Option V given in the methodology: “Efficiency of the improved cookstoves to be estimated using equation 5 above where loss in efficiency per year is calculated, and therefore this parameter does not need to be monitored” can be used by PP.
3	$B_{y=1,new,i,j,survey}$	VMR0006	Description:- 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. Monitoring Method and Frequency of monitoring: - Minimum sample size of each type I and batch j should be in line with the latest version of Standard for sampling and surveys for CDM project activities and programme of activities or guidelines provided in methodology Section 8.4 option (b). Determined in the first year of the introduction of the devices (e.g., during the first year of the crediting period, $y=1$) through measurement campaigns at representative households and/or sample survey.
4	Life Span	VMR0006	Description: -The operating lifetime of the project device. The life span should be reported if methodology equation 5 is adopted to determine the project stove efficiency. Monitoring Method and Frequency of monitoring: - Manufacturer’s specification has been checked once at the time of project stove installation.

In accordance with section 3.25.1 of the VCS Standard (version 4.4) /B01-a/ all documents and records will be kept in a secure and retrievable manner for at least two years after the end of the project crediting period. The data collecting and management methods as provided in section 5.3 of the VCS Joint PD & MR /01-c/ are acceptable to the validation and verification team. The validation and verification team interviewed representatives of PP and it was established that the database of all the project equipment distributed by PP is created and maintained. The entire database will be kept protected by PP for a period of more than two years after the end of crediting period.

The validation and verification team considers that the means of implementation of the monitoring plan, including the data management, monitoring equipment and quality assurance and quality control

procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed project therein can be reported ex post and verified. In addition, the sampling plan meets the requirements of the monitoring methodology VMR0006 (version 1.1) /B02-a/ and the Standard of Sampling and Surveys of CDM project activities and Programme of Activities (version 09.0) /B04-a/ and Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04) /B04-b/.

Validation and verification team confirms that the overall monitoring plan complies with the requirements of the methodology VMR0006 (version 1.1) /B02-a/, the monitoring arrangements describes in the monitoring plan are feasible within the project design and the project proponents will be able to implement the described monitoring plan.

3.5 Non-Permanence Risk Analysis

This is not applicable to the project activity as the Project is not an AFOLU (Agriculture, Forestry and Other Land Use) project.

4 VERIFICATION FINDINGS

4.1 Accuracy of GHG Emission Reduction and Removal Calculations

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the Joint PD & MR /01-c/. The emission reductions of the project instances of the project and project activity instance are calculated using the formulae mentioned in the applied methodologies; VMR0006 version 1.1/B02-a/. The validation and verification team has reviewed the emission reduction spread sheets (ER sheets) and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the PD and the applied monitoring methodology.

According to applied methodology VMR0006 (version 1.1) /B02/the emissions are calculated as below:

Baseline Emission

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

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 CO₂e
 $ER_{y,i,j}$ = Emission reductions by improved cookstove of type i and batch j during year y in t CO₂e

$$ER_{y,i,j} = B_{y,savings,i,j} \times NCV_{wood\ fuel} \times f_{NRB,y} \times (EF_{wf,CO_2} + EF_{wf,non\ CO_2}) \times N_{y,i,j} \times 0.95 \quad \text{Equation (2)}$$

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 (fNRB)
 $NCV_{wood\ fuel}$ = 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,CO_2} = CO₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO₂/TJ)
 $EF_{wf,non\ CO_2}$ = Non-CO₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 26.23 tCO₂/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:

$$B_{y,savings,i,j} = B_{y=1,new,i,survey} \times \left(\frac{\eta_{new,y,i,j}}{\eta_{old}} - 1 \right) \quad \text{Equation (4)}$$

Where

η_{old}	=	Efficiency of baseline cookstove
$\eta_{new,y,i,j}$	=	Efficiency of the improved cookstove type i and batch j determined through water boiling test (WBT) during year y Alternatively, efficiency may be determined using Equation 4.
$B_{y=1,new,i,j,survey}$	=	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.

$$\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94 \quad \text{Equation (5)}$$

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.

Sampling approach: -

As assessed in this section, emission reductions for the project "Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3" have being claimed for this monitoring period and the total population of the stoves for this monitoring period (05-August-2021 to 30-June-2022) is 19,570 ICS.

The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B02-a/ and the VCS Joint PD & MR /01-c/. The PP has appropriately performed simple random sampling procedure and has chosen a sample size of 48 which in line with the applied methodology VMR 0006 version 1.1/B02-a/. As the VCS Joint PD & MR /01-c/ mentions the option for simple random sampling procedure, it is acceptable to the validation and verification team.

The sampling surveys have been carried out by the well-trained personnel /14/. Monitoring parameters $N_{y,j,j}$ and μ_y are monitored through monitoring sample surveys. Monitoring of the parameters ensures compliance with the applied methodology VMR0006, version 1.1 /B02/. The Validation and verification team has checked the survey records /08/. Parameter $N_{y,j,j}$ monitors the number of stoves in operation and the parameters $B_{y=1,new,i,j,survey}$ monitors quantity of woody biomass used by project device.

PP has surveyed 48 sampled households for the current monitoring period.

VVB used acceptance sampling during the verification stage of this combined validation and verification for checking the operational status in the households. The sampling done by VVB reflects the population of the project activity. applying paragraph 39 (c) of the sampling standard, version 09 /B04/, a sample size of 11 ICS was chosen (with no discrepant records). A sample size of 11 each was determined for

both the districts, based on an AQL of 0.5% and UQL of 20%, producer risk of 10% and consumer risk of 10%. Acceptance number (c) thus determined for the sample is 0. VVB interviewed 11 samples from a monitoring survey. It was observed that out of the 11 samples, all the 11 stoves were found to be operational, and this matched with the PP's records and hence no discrepant records were observed with the Joint PD & MR /01-c/ and ER sheets /03-c/ and thus c=0. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B04/. The Validation and Verification team has cross verified these sample documents.

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

1. Number of project devices operating during year y ($N_{y,i,j}$)
2. Quantity of woody biomass used by project device ($By=1,new,i,j,survey$)

The following table summarizes the sample sizes and results.

Monitored Parameter	Sample size	Survey Results	Precision achieved
Number of stoves in operation ($N_{y,i,j}$)	48	100%	0.00%
Quantity of woody biomass used by project device ($By=1,new,i,j,survey$)	48	2.69 Kg/device/day	6.73%

As per the applied methodology VMR0006 version 01.1 section 9.2 /B02/. 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/13/.

On site assessment of Monitoring parameters (namely $By=1,new,i,j,survey$, and $N_{y,i,j}$) was conducted based on following two methods:

- Confirmation with the household/end user whether or not the PP has performed monitoring/measurement campaign (for parameter $By=1,new,i,j,survey$) and survey on stove operation (for the parameter $N_{y,i,j}$).
- Assessment of Competence of personnel involved in conducting standardized tests and surveys: Verification team has reviewed the abilities, qualifications, and recognition of involved personnel. The verification team based on the onsite inspection interviews confirms that the team was qualified to carry out the monitoring of the parameters in line with the methodology.

During the onsite interviews with PP's representative, VVB was able to understand the process in line with the methodology VMR0006 version 1.1/B02/ and the PP monitoring procedure in line with the VCS Joint PD & MR /01-c/.

It is worth to note here that PP has selected the same households for both parameters above and for the same reason, VVB's sample for acceptance sampling was the same for both the parameters. VVB could verify the original survey forms /07/ and data/information flow to sampling sheet/08/ and ER spread sheet/03-c/. No discrepancy was found in the data/information flow. As per section 2.3 above the end

users were not interviewed in a single day. Hence, the survey process deemed acceptable to the verification team.

Furthermore, the database /09/ and sample sales invoice /16/ was also checked/cross verified to confirm the number cookstoves for the parameter $N_{y,i,j}$.

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.

Emission reductions have been calculated in accordance with the applied methodology VMR0006 version 1.1 /B02/. 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 validation and verification team and was found appropriate and correct. The Parameters Determined ex-ante is listed in section 6.1 of this Joint validation and verification report. 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) /09/, VCS Joint PD & MR /01-c/ and applied methodology /B02/. The emission reductions calculated were compared with the ex-post emission reduction spread sheet /03-c/ and found to be correct. No significant reporting risks have been identified for the data reported.

Under this project activity, there are 9466 ICS that were transitioned from the project VCS 2366. Those stoves were already claimed for ERs till its 2nd monitoring period of VCS verification (2nd MP end-date: 15th October 2021) and later excluded those stoves from MP03 onwards. The same has been verified from MP03 verification report and the stove database/ER spreadsheet. PP had provided clarification on excluding those stoves from VCS 2366 project during its MP03 verification under CAR 02 finding. To avoid any double counting for those stoves and maintain transparency, PP has decided not to claim any credits for entire stoves until 15th October 2021 and conservatively, PP has accounted the ERs from 16th October 2021 onwards. The database of the transition stoves are also shared in a separate sheet in the ER excel spreadsheet for reference

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

Table 4:- 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:	19,570
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
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?	NA. QA/QC procedures stated in MR comply with VCS PD
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 /08/ and the ER sheet /03-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	Yes, the data management ensures correct transfer of data and reporting of emission

emission reductions and are necessary QA/QC processes in place?	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):	Efficiency of the improved cookstove type <i>i</i> and batch <i>j</i> during year <i>y</i> ($\eta_{new,y,i,j}$)																						
Measuring frequency/Time Interval:	Annually																						
Reporting frequency:	Annually																						
Reported value:	<table border="1"> <thead> <tr> <th>Year (y)</th> <th>$\eta_{new,y,i,j}$</th> </tr> </thead> <tbody> <tr><td>1</td><td>32.43%</td></tr> <tr><td>2</td><td>32.11%</td></tr> <tr><td>3</td><td>31.78%</td></tr> <tr><td>4</td><td>31.47%</td></tr> <tr><td>5</td><td>31.15%</td></tr> <tr><td>6</td><td>30.84%</td></tr> <tr><td>7</td><td>30.53%</td></tr> <tr><td>8</td><td>30.23%</td></tr> <tr><td>9</td><td>29.92%</td></tr> <tr><td>10</td><td>29.63%</td></tr> </tbody> </table>	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%
Year (y)	$\eta_{new,y,i,j}$																						
1	32.43%																						
2	32.11%																						
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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-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 VCS PD? If the VCS PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	NA. QA/QC procedures stated in MR comply with VCS PD
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/01-c/ has been compared with the ER sheet /03-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	NA

been applied or has a request for deviation been approved?	
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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:	0.9819 (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 from calculation /02/
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/01-c/ comply with VCS PD
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 /03-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 from monitoring survey 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 /05/
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:	NA

Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	
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?	NA. QA/QC procedures stated in MR comply with VCS PD
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 /03-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 from monitoring survey /08/ 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

VVB 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 Joint PD & MR /01-c/. The total number of emission reductions for the monitoring period (05-August-2021 to 30-June-2022) is 51,259 tCO₂e.

VVB 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.

4.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

When verifying the reported emission reduction, CCIPL ensured that there was a clear audit trail that contained the evidence and records that verify 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.

5 VALIDATION AND VERIFICATION OPINION

The Project Proponent, “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”, has commissioned the VVB, Carbon Check (India) Private Ltd. to perform a Joint

validation and verification of the VCS Project Activity “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”. This report summarizes the findings of the validation and 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 validation and verification process was performed on the basis of all guidance and criteria as provided in VCS Standard version 4.4 /B01-a/, VCS Program Guide version 4.3 /B01-b/, VCS Validation and Verification Manual version 3.2/B01-c/ and Registration & Issuance Process version 4.3/B01-d/.

The project activity provides the information in Joint PD & MR /01-c/ as required by the VCS Standard /B01-a/ and Validation and Verification Manual /B01-c/ and in Carbon Check’s opinion meets the requirements of the applied baseline and monitoring methodology, VMR0006 version 1.1 /B02-a/and is likely to achieve the estimated emission reductions. The joint validation and verification have been performed using a risk- based approach, as described above. The expected annual average emission reductions from the project activity are 285,339 tCO₂e and 2,853,391 tCO₂e over the 10 years of crediting period.

Table 09: Estimated GHG emission reductions or removals (tCO₂e)

Year	Estimated GHG emission reductions or removals (tCO ₂ e)
Year 1	541,837
Year 2	480,603
Year 3	420,998
Year 4	362,998
Year 5	306,581
Year 6	251,721
Year 7	198,397
Year 8	146,585
Year 9	96,263
Year 10	47,408
Total estimated ERs	2,853,391
Total number of crediting years	10
Average annual ERs	285,339

Carbon Check (India) Private Ltd concludes the validation with a positive opinion that the VCS Project Activity “Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3”, as described in the VCS Joint PD & MR (version 02.1, dated 02-May-2023) /01-c/, meets all the applicable VCS requirements, including those specified in the Project Standard, relevant methodology, tools, and guidelines.

The selected baseline and monitoring methodology, VMR0006, Version 1.1/B02-a/ is applicable to the project and correctly applied. Carbon Check (India) Private Ltd therefore requests the registration of the project as a VCS project activity.

The VVB confirms that the project has been implemented in accordance with the Joint PD & MR/01-c/.

Monitoring period: From 05-August-2021 to 30-June-2022

However as discussed in section 1.11 of the Joint PD & MR and section 4.1 of the Joint Validation and Verification report, PP has decided not to claim any credits for entire stoves until 15th October 2021 and conservatively, PP has accounted the ERs from 16th October 2021 onwards.

Table 10: Net GHG emission reductions or removals (tCO₂e)

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2021 (05-August-2021 to 15-October-2021)	0	0	0	0
2021 (16-October-2021 to 31-December-2021)	12,430	0	0	12,430
2022 (01-January-2022 to 30-June-2022)	38,829	0	0	38,829
Total	51,259	0	0	51,259

The verification team is of the opinion that the project has been implemented in accordance with the joint PD & MR. The monitoring complies with the MP and the monitored data and calculation of ERs are assessed and confirmed as correct.

Therefore, CCIPL hereby certifies, and requests the issuance of, the reported ERs during the monitoring period of 05-August-2021 to 30-June-2022 amounting to 51,259 tCO_{2e} to the VCS Registry.

Table 11: Percentage difference for ex-ante and achieved ERs with justification.

<u>Ex-ante emissions reductions /removals</u>	<u>Achieved emissions reductions /removals</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
39,470	51,259	29.9%	Actual emission reductions achieved are 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 during exante calculation.

APPENDIX 1.1: REFERENCE DOCUMENTS

Ref	Document
/01/	Joint Project description and Monitoring Report titled: <ul style="list-style-type: none"> a) Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3, Version 01.0 dated 27-January-2023 b) Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3, Version 02.0 dated 28-April-2023 c) Installation of High Efficiency Wood Burning Cookstoves in Tanzania – Project 3, Version 02.1 dated 02-May-2023
/02/	<ul style="list-style-type: none"> a) Ex ante estimations sheet corresponding to /01-a/ b) Ex ante estimations sheet corresponding to /01-b/ c) Ex ante estimations sheet corresponding to /01-c/
/03/	<ul style="list-style-type: none"> a) Ex-Post monitoring ER sheet corresponding to /01-a/ b) Ex-Post monitoring ER sheet corresponding to /01-b/ c) Ex-Post monitoring ER sheet corresponding to /01-c/
/04/	Registration certificate cum consent deed as evidence for the start date of the grouped project
/05/	Technical specifications of the TLC-CQC Rocket Stove including the life span.
/06/	Proof of right of VERs.
/07/	Monitoring survey questionnaire template
/08/	Survey records for the monitoring period including sampling sheet.
/09/	Database for the ICS distributed
/10/	Stove efficiency test performed by Aprovecho Research Centre on the TLC Rocket Stove.
/11/	fNRB calculation done by C4 EcoSolutions (Pty) Ltd.
/12/	Registration certificate cum consent deed as evidence for unique identification of each of the TLC-CQC Rocket Stove
/13/	Sample size and precision level achieved calculator for the monitoring period
/14/	Training records
/15/	Screenshot of the random sample generator as evidence for random sample selection for the monitoring survey parameters
/16/	Sample sales records/warranty cards for the stove
/17/	Registration certificate cum consent deed as proof of right of relinquishment of VERs from the end users of the stove
/18/	CQC Grievances Redress policy and scanned grievance logbook/register
/19/	Joint Validation and verification contract in between CCIPL and “C-Quest Capital CR Stoves Private Limited”.
/20/	Emails sent to retailers and stove manufacturers as evidence for the project and potential risk of Scope 3 emissions double claiming.
/21/	Spot audit report as evidence for monitoring of the ICS

APPENDIX 1.2: BACKGROUND DOCUMENTS

Ref	Document
/B01/	VCS Requirements <ol style="list-style-type: none"> a. VCS Standard (v4.4, dated 17-January-2023) b. VCS Program Guide (v4.3, dated 17-January-2023) c. VCS Validation and Verification Manual version (v3.2, dated 19-October-2016) d. Registration & Issuance Process (v4.3, dated 17-January-2023) e. VCS Program Definitions version (v4.3, dated 21-December-2022) VCS MR template version 4.2 (dated 21-December-2022)
/B02/	Applied baseline and monitoring methodology <ol style="list-style-type: none"> a. VMR0006. version 1.1, “Methodology for Installation of High Efficiency Firewood Cookstoves”
/B03/	Methodological Tool <ul style="list-style-type: none"> • CDM Tool 30 “Calculation of the fraction of non-renewable biomass” Version 03.0 • CDM Tool 01” Tool for the demonstration and assessment of additionality” version 7.0.0
/B04/	<ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 1. IPCC (http://www.ipcc-nggip.iges.or.jp) 2. http://cdm.unfccc.int 3. http://www.v-c-s.org 4. https://www.fao.org/3/cb0032en/cb0032en.pdf 5. https://cdm.unfccc.int/

APPENDIX 2: ABBREVIATIONS

CDM	Clean Development Mechanism
BE	Baseline Emission
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
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
VB	Validation Verification Body
VM	Validation and Verification Manual
VVS	Validation and Verification Standard

APPENDIX 3: CERTIFICATES OF COMPETENCE



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Pallavi Gedam



has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

<input checked="" type="checkbox"/> Validator	<input checked="" type="checkbox"/> Verifier	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Technical Expert
<input type="checkbox"/> Technical Reviewer	<input type="checkbox"/> Health Expert	<input type="checkbox"/> Gender Expert	<input type="checkbox"/> Plastic Waste Expert
<input checked="" type="checkbox"/> SDG+	<input checked="" type="checkbox"/> Social no-harm(S+)	<input checked="" type="checkbox"/> Environment no-harm(E+)	<input type="checkbox"/> CCB Expert
<input type="checkbox"/> Financial Expert	<input checked="" type="checkbox"/> Local Expert for India		

in the following Technical Areas:

<input type="checkbox"/> TA 1.1	<input checked="" type="checkbox"/> TA 1.2	<input type="checkbox"/> TA 2.1	<input checked="" type="checkbox"/> TA 3.1	<input type="checkbox"/> TA 4.1
<input type="checkbox"/> TA 4. n	<input type="checkbox"/> TA 5.1	<input type="checkbox"/> TA 5.2	<input type="checkbox"/> TA 7.1	<input type="checkbox"/> TA 8.1
<input type="checkbox"/> TA 9.1	<input type="checkbox"/> TA 9.2	<input type="checkbox"/> TA 10.1	<input type="checkbox"/> TA 13.1	<input type="checkbox"/> TA 13.2
<input type="checkbox"/> TA 14.1	<input type="checkbox"/> TA 15.1			

<p>Issue Date 1st January 2023</p>  <p>Mr. Vikash Kumar Singh Compliance Officer</p>	<p>Expiry Date 31st December 2023</p>  <p>Mr. Amit Anand CEO</p>
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CCIPL_FM 7.9 Certificate of Competency_V2.1_012023



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:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input checked="" type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input checked="" type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India and Sri Lanka | | |

in the following Technical Areas:

- | | | | | |
|--|--|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

APPENDIX 4: FINDINGS LOG

Table 1. CLs from this Joint validation and verification

Finding	CL 01		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	During the onsite visit it was found that “ <i>Installation of high efficiency wood burning cookstoves in Tanzania- Project 3</i> ” has the single stove distribution, which was the part of VCS 2366 MP1 and MP2. However Joint PD and MR do not mention about the same. PP to clarify on the double counting of the ERs and stoves distributed for both the project.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>There is a total of 19570 ICS distributed under the project activity during the 1st MP. Out of which there are 9466 ICS that were transitioned from the project VCS 2366. To avoid any double counting for those stoves and maintain transparency, PP has decided not to claim any credits for entire stoves until 15th October 2021 and conservatively, PP has accounted for the ERs from 16th October 2021 onwards only. The database of the transition stoves is also shared in a separate sheet in the ER Excel spreadsheet for reference.</p> <p>PP had already provided clarification on excluding those stoves from VCS 2366 project during its MPO3 verification under CAR 02 findings with the same VVB. PP has also updated section 1.11 of the joint PD & MR providing the details of the transition stoves.</p> <p>The revised calculation of ER spreadsheet has been shared with VVB for reference.</p>		
VVB Assessment #1 <i>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.</i>	The VVB has assessed the updated Joint PD & MR and ER sheet and confirms that the PP has provided the justification regarding the avoidance of double counting. Accordingly, PP has updated the period for which ERs are claimed in the current monitoring period. This is deemed acceptable to the validation and verification team. Hence, this finding is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 02		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	In section 1.1 of the Joint PD & MR, PP has not indicated the annual GHG emission reduction for each project activity instance. PP needs to state the estimated annual GHG emission reduction for each project activity instance.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	PP has updated section 1.1 of the joint PD & MR providing the details as requested.		
VVB Assessment #1 <i>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.</i>	The VVB has assessed the updated Joint PD & MR and confirms that PP has stated the annual GHG emission reduction for each project activity instance. Hence, this finding is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 03		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	As per § 3.18.9 of the VCS standard version 4.4 states “The project proponent shall take due account of any and all comments received during the consultation, which means it will need to either update the project design or demonstrate the insignificance or irrelevance of the comment. It shall demonstrate to the validation/verification body what action it has taken”. PP needs to mention the public comments if received during the commenting period under section 2.4 of the joint PD & MR, since the window for public comment has closed.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	PP has received no public comments during the public commenting period. Also, PP has updated section 2.4 of the joint PD & MR mentioning the same.		
VVB Assessment #1 <i>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.</i>	The VVB has assessed the updated PD and confirms that section 2.4 of the Joint PD & MR has been updated. Hence, this finding is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 04		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	PP needs to check the paragraph references of the latest VCS standard version 4.4 and refer it correctly in the Joint PD & MR.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	There was a typo error in section 1.7 of the joint PD & MR and the same has been revised.		
VVB Assessment #1 <i>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.</i>	The VVB has assessed the updated Joint PD & MR and confirms that PP has referenced the latest VCS standard version 4.4. Hence, this finding is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 05		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	As per the § 3.18.19 (1,2,3) of the VCS standard version 4.4 <i>“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.....”</i> During the on-site visit, it was observed that few households had communicated their grievances to the implementing partners. PP to clarify the same and provide the closure for the grievances observed onsite.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	PP has updated section 2.2 of the joint PD & MR highlighting the grievances received and actions being taken during this monitoring period. PP has also shared the grievance register records and CQC Grievance Redress Policy and Procedure for reference.		

Finding	CL 05
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.	The VVB has assessed the updated Joint PD & MR and confirms that PP has addressed the grievances received during the monitoring period. Hence, this finding is closed.
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CL 06
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding (VVB)	Document required ; <ul style="list-style-type: none"> • Scanned survey forms (monitoring survey) • Declaration from the project proponent that the project has not or shall not claim carbon credits any other scheme after Registration of the project under VCS. • Declaration from the project proponent that the project is not creating any other form of environmental credit under any specific program. • Declaration on no double counting, target group, geographical boundaries and distribution mechanism • Grievance Redress Policy • Grievance register • Monitoring service records • Training records for field assistance • Spot audit records • Calibration records (if any)
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	All the supporting documents requested by VVB are being shared for reference.

Finding	CL 06
VVB Assessment #1 <i>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.</i>	The VVB has received the documents. Hence, this finding is closed.
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CL 07
Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL <input type="checkbox"/> FAR
Description of finding (VVB)	As per § 3.23.9 of the VCS standard v4.4 “Where the producer(s) or retailer(s) of the impacted good or service are known but not involved in the project or do not have a website, the project proponent shall notify them of the project and potential risk of Scope 3 emissions double claiming via email.” PP needs to clarify how this condition was complied with and provide the supporting evidence.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	PP has published a public notice to avoid double claiming of Scope 3 emissions under this project activity. The same can be checked using the link: https://cquestcapital.com/latest/public-notice/ PP has also notified the same to the stove manufacturer and IPs that are involved in the project via email. Copies of the emails are attached in the appendix section of the joint PD & MR and are also being 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.	The PP has provided the link of notice to avoid double claiming of scope 3 emission reductions. Copies of the email sent to stove manufacturers are attached in the Joint PD & MR. Hence, this finding is closed.
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Table 2. CARs from this Joint validation and verification

Finding	CAR 01
Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL <input type="checkbox"/> FAR

Finding	CAR 01
Description of finding (VVB)	As per the § 3.18.4 of the VCS standard version 4.4, "The project proponent shall establish mechanisms for ongoing communication with local stakeholders to allow stakeholders to raise concerns about potential negative impacts during project implementation" PP needs to include the same in Joint PD &MR.
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 section 2.2 of the joint PD & MR providing the necessary details for ongoing communication mechanism as well as for grievance redressal mechanism. The updated joint PD & MR is being shared with VVB for reference.
VVB Assessment #1 <i>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.</i>	PP has updated the joint PD & MR section 2.2. This has been checked and confirmed by the VVB. Hence, this finding is closed.
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CAR 02		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	In section 7.2 of the Joint PD & MR, PP has stated that, "The emission reductions calculations have been provided in an excel spreadsheet." However, PP needs to demonstrate the calculation of Emission reductions for the monitoring period in section 7.5 of the Joint PD & MR as well.		
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 section 7.5 of the joint PD & MR and demonstrated in detail the ER calculations with an example.		

Finding	CAR 02
<p>WVB Assessment #1</p> <p><i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and WVB assessments (#2, #3, etc.) shall be added.</i></p>	<p>The VVB has assessed the updated Joint PD & MR and confirms that the ER calculation is demonstrated in section 7.5.</p> <p>Hence, this finding is closed.</p>
<p>Conclusion</p> <p><i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input type="checkbox"/> Outstanding finding (not closed)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>