



VERIFICATION REPORT FOR FUEL EFFICIENT COOKING IN SOUTH AFRICA



Document Prepared By: Carbon Check (India) Private Limited,

Unit No.: 1701, Logix Office Tower, Plot No.: BW - 58, Sector - 32, NOIDA
(Uttar Pradesh) - 201301, India, Phone: +91 120 4373114

<http://www.carboncheck.co.in>

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Prepared By	Carbon Check (India) Private Limited
Contact	Unit No.: 1701, Logix Office Tower, Plot No.: BW - 58, Sector - 32, NOIDA (Uttar Pradesh) - 201301, India, Phone: +91 120 4373114
Approved By	Vikash Kumar Singh, Compliance Officer
Work Carried Out By	Anubhav Dimri (Team Leader, Technical Expert and Local Expert) R Saranya (Trainee Assessor) Indumathi C (Technical Reviewer)

Summary:

The client TASC SA (PTY) LTD has appointed the validation/verification body Carbon Check (India) Private Ltd. to perform a verification of VCS Grouped Project Activity “Fuel Efficient Cooking in South Africa” in South Africa (hereafter “project activity”) for the period from 10/02/2022 to 31/01/2023 and inclusion of a project instance “Waterberg (PI2-WB)”.

TASC SA (PTY) LTD registered the grouped project activity “Fuel Efficient Cooking in South Africa” under the VCS and included the first project instance, Kruger 2 Canyons (PI1-K2C), on the same date and included the second project instance “Waterberg (PI2-WB)” during the monitoring period 1.

The project proponent applied the approved CDM Methodology: VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves v1.1. In addition, the Standard: Sampling and Surveys in CDM Project Activities and Programme of Activities version 9.0; Guidelines: Sampling and Surveys in CDM Project Activities and Programme of Activities version 4.0 are used; these documents include the requirements for sampling and surveys applied to clean development mechanism projects and programme of activities (PoA) and specifies the reliability requirements and describes appropriate sampling methods and what is expected to be provided in a sampling plan.

The verification consisted of the following three phases: i) a desk review of the Monitoring Report ii) Onsite Visit; iii) the resolution of outstanding issues and internal technical review followed by the issuance of the final verification report and opinion. In the course of the verification process 04 CARs, 07 CLs and 01 FARs were raised, all the CARs and CLs are closed now and the FAR shall be checked at the time of the next periodic verification. The list of Clarification and Corrective Actions Requests (CL and CAR) is presented in this report.

CCIPL confirms that the project is implemented in accordance with the validated VCS-PD and the monitoring plan; and then, claimed emissions reductions are calculated without material misstatements. No uncertainties associated with the calculations of emission reductions have been observed by the validation team.

CCIPL has performed the verification of Fuel Efficient Cooking in South Africa on the basis of all issues and criteria of VCS Standard version 4.4 and VCS Program Guide version 4.3 for VCS projects and also on the criteria given to provide for consistent project operations, monitoring and reporting. Hence, in CCIPL's opinion the project correctly applies the baseline and monitoring methodology VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves v1.1 and meets the relevant UNFCCC requirements for the CDM Methodology, Voluntary Carbon Standard requirements and the relevant host country criteria.

Therefore, CCIPL is able to certify that the emissions reductions from the "Fuel Efficient Cooking in South Africa" project during the period from 10/02/2022 to 31/01/2023 amount to 918,187 tonnes of CO₂e. The year-wise break up of verified emission reduction is as below:

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)
2022 (10/02/2022 to 31/12/2022)	801,138	0	0	801,138
2023 (01/01/2023 to 31/01/2023)	117,049	0	0	117,049
Total	918,187	0	0	918,187

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1 INTRODUCTION

1.1 Objective

TASC SA (PTY) LTD. (Project Proponent) has appointed CCIPL for verification service for the registered VCS grouped project - “Fuel Efficient Cooking in South Africa” (VCS Project ID 2505) located in South Africa against the requirements of the VCS Program.

Verification is the periodic independent review and ex post determination of both quantitative and qualitative information by a Validation and Verification Body (VVB) of the monitored reductions in GHG emissions that have occurred as a result of the VCS project activity during a defined monitoring period. The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data and used to confirm the reductions in emissions is sufficient, definitive and presented in a concise and transparent manner. Carbon Check’s objective is to perform a thorough, independent assessment of the registered projects activities. In particular, the monitoring plan, monitoring report and the project’s compliance are verified against the relevant criteria and guidance documents provided by VCS. This allows for the confirmation that the project has been implemented in accordance with the registered VCS PD and conservative assumptions, as documented. And, also to confirm if the monitoring plan is in compliance with the VCS PD and approved monitoring methodology. The objective of this verification was to verify and certify emission reductions reported for the “Fuel Efficient Cooking in South Africa” for the period 10/02/2022 to 31/01/2023.

1.2 Scope and Criteria

The verification of this project is based on the registered Project Description/B04/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spread sheet /03/, supporting documents made available to the verifier and information collected through performing interviews and during the onsite visit assessment. Furthermore, publicly available information was considered as far as available and required.

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

The verification is carried out on the basis of the following requirements (latest available on VCS website at the time of verification), applicable for this project activity:

- VCS Standard version 4.4
- VCS Program Guide version 4.3

- VCS Validation and Verification Manual version 3.2
- Program Definitions (v4.3)
- Registration & Issuance Process (v4.3)
- Approved VCS methodology (VMR0006 - Methodology for Installation of High Efficiency Firewood Cookstoves, version 1.1)
- 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 project description*
- *To assess the project's compliance with other relevant rules including the host country legislation.*
- *To assess the implementation of the monitoring plan content as mentioned in the registered VCS-PD*
- *To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions (VERs/VCUs) without any double counting and*
- *To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation /03/, /04/.*
- *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. *Onsite Visit;*
3. *Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.*

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

1.3 Level of Assurance

- ☒ Reasonable level of assurance
- ☐ Limited level of assurance

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors.

1.4 Summary Description of the Project

The project activity 'Fuel Efficient Cooking in South Africa' is a grouped project activity and involves dissemination of improved energy efficient cookstoves (ICS) in South Africa. The ICS disseminated under this grouped project activity is based on rocket stove design principles, which reduces GHG emissions from biomass burning through improved combustion efficiency of wood fuel and decreased wood fuel consumption. Rocket Works Zama Zama rocket stove included in the grouped project activity, with a thermal efficiency of 38.30% is distributed in both the project instances (PI1-K2C and PI2-WB).

The reported monitoring period for the project activity is 10/02/2022 to 31/01/2023. This is the second monitoring period under VCS.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The method and criteria used for verification:

The verification consists of the following three phases:

1. Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment's including calibration requirements, QA/QC procedures, any changes to the grouped project activity and new project activity instances and other relevant documents;
2. Onsite visit (including follow-up interviews with project stakeholders, when deemed necessary). The onsite visit assignment includes the following;
 - An assignment of implementation and operation of project activity with respect to validated VCS PD;
 - Review of information flows for generating, aggregating and reporting the monitoring parameters;
 - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with monitoring plan of the validated VCS PD;
 - Cross check of information and data provided in the monitoring report with plant logbooks, inventories, purchase records or similar data sources;

- Check of monitoring equipment's, calibration frequency and monitoring practice in-line with methodology and validated VCS PD;
- Review of assumptions made in calculating the emission reduction;
- Implementation of QA/QC procedure in-line with the validated VCS PD and methodology requirement.

Resolution of outstanding issues and the issuance of the final Verification report and if applicable, the VCS Validation and Verification Deeds of Representation.

2.2 Document Review

The registered VCS PD/B04/, VCS MR /01/, /02/, emission reduction calculation spread sheet /03/, /04/ and supporting documents related to the project implementation, project design, monitoring and baseline were reviewed as per VCS version 04 requirements. The desk review included:

- *A review of the data and information presented to verify completeness and consistency in accordance with VCS version 04 requirements;*
- *A review of the approved monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, quality of monitoring equipment (including calibration requirements) and the quality assurance and quality control (QA/QC) procedures;*
- *An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reductions.*

Data input values were also checked from the records maintained by the project proponents. Results of calculations reported in the monitoring report were checked against data values as available from the project proponent in VER calculation sheet /03/, /04/.

These data values and other information related to project performance are available in the form of data records duly archived and maintained as per the quality assurance/quality control procedure specified as a part of monitoring plan in the registered VCS-PD.

Furthermore, the verification team used additional documentation by third parties like host-party legislation, technical reports referring to the project design or to the basic conditions and technical data.

2.3 Interviews

A physical onsite visit to the project activity was undertaken from 13/02/2023 to 17/02/2023 to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters. The onsite visit assessment addressed:

- An assessment of the project implementation and operation as per the PD (including physical inspection to confirm physical existence and operation of project components);

- Review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the monitoring report /01/, /02/.

The key personnel interviewed, and the main topics of the interviews are summarized in the table below:

S. No.	Name	Organization	Topic
/i/	Lize Kok	TASC SA (PTY) LTD.	Project implementation and operation, Project design, monitoring procedure, data and information flow, compliance of monitoring plan with monitoring methodology and approved VCS-PD, Roles and responsibility, Qualification and Training, CER calculation and completeness of monitoring report, Electronic Monitoring system, Data collection and data flow, Monitoring surveys, Sample size
/ii/	Nick Marshall	TASC SA (PTY) LTD.	Project implementation and operation, Project design
/iii/	Keneilwe Mmushi	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/iv/	David Mpebe	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/v/	Hope Morema	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/vi/	Okoy Sibashi	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/vii/	Leon Reynolds	TASC SA (PTY) LTD.	Project implementation and operation, Project design
/viii/	Mohau Rankapule	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/ix/	Thapelo Motswene	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders

/x/	Gareth Commbes	TASC SA (PTY) LTD.	Ongoing communication with local stakeholders, Habit Surveys
/xi/	Brendon	TASC SA (PTY) LTD.	Project implementation and operation, Project design
/xii/	Owen Kgobola	TASC SA (PTY) LTD.	KPT survey process, training procedure and habit survey process, Ongoing communication with local stakeholders
/xiii/	Sina Sithole	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xiv/	Loyce Mathebula	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xv/	Maphuti Selolo	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xvi/	Elizabeth Moeti	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xvii/	Makolobe Mathiana	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xviii/	Kgolane Kawnaite	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xix/	Mamma Philippine Mongalo	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xx/	Meisi Mohale	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xxi/	Loyce Mathebula	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xxii/	Veronica Ndlovu	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.
/xxiii/	Sekgokolo Cynthia Moeng	Project Stove User	Monitoring usage survey – Habit Survey, efficiency testing (if any), stove usage pattern, demographic details.

/xxiv/	Joel Mokobane	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxv/	Makoena Kgomo	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxvi/	Doreen Malepe	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxvii/	Rebone Mashinye	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxviii/	Phenius Kgohloane	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxix/	Mosadi Dorah Morei	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxx/	Mbilu Elly Silubane	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxi/	Joyce Tumisile Tini	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxii/	Vutomi Zulu	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxiii/	Tlangelani Sibuyi	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxiv/	Johanna Mapurama	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxv/	Raisibe Kgomo	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxvi/	Mosima Mamabolo	Project User	Stove	KPT survey – efficiency testing results, demographic details
/xxxvii/	Shibe Seboko	Project User	Stove	KPT survey – efficiency testing results, demographic details

2.4 Site Visits

Carbon Check has conducted an onsite visit for the assessment of the grouped project activity. A reasonable level of assurance has been maintained through the onsite visit for the purpose of verification as follows:

- 1) An assessment of the implementation and operation of the project activity as per the registered VCS PD /B04/

- 2) A review of information aggregating and reporting of the monitoring parameters
- 3) Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP (section 2.3 above)
- 4) A cross-check between the emission reduction information provided in the MR /01/ and data from other sources (section 2.3 above).
- 5) A review of calculations and assumptions made in determining the GHG data and ERs /02//04/, and
- 6) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters
- 7) The duly calibration/testing of all monitoring equipment was checked.
- 8) The monitoring processes, routines and documentations were audited to check their proper application.
- 9) The monitoring data were checked completely.

2.5 Resolution of Findings

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs. **Corrective action requests (CAR)** are issued, where:

- i. Mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report;
- ii. Applicable methodological specific requirements have not been met.

A **Clarification request (CL)** may be used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

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

- i. The actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or
- ii. An adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality emissions reductions in the future, i.e. by deviations from standard procedures as defined by the MP. As a consequence, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions.

A total of 04 CARs and 07 CLs had been raised for the verification of the project activity and all the findings have been closed. One FAR has been raised and shall be checked at the time of the first periodic verification.

2.5.1 Forward Action Requests

One forward action request has been raised and shall be checked at the time of the next periodic verification.

2.6 Eligibility for Validation Activities

Validation/Verification body (VVB), Carbon Check (India) Private Ltd. holds accreditation for validation for the relevant sectoral scope 3 and is eligible for validation/verification for the project activity.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is already registered with VCS as a grouped project activity (project ID is 2505). The grouped project activity is not registered under any other GHG program. The grouped project activity is eligible to participate under the VCS Program.

3.2 Methodology Deviations

No methodology deviations have been applied to the grouped project activity during the reported monitoring period.

3.3 Project Description Deviations

No project description deviations have been applied to the grouped project activity during the reported monitoring period.

Previous Project Description Deviation:

Other entities involved in the grouped project activity were not listed in the Section 1.6 of the PD/B04/. The other entities involved in the grouped project activity were listed during the monitoring period 1. The deviation has also been listed in the section 3.2.2.1 of the MR/02/.

3.4 Grouped Project

The project activity 'Fuel Efficient Cooking in South Africa' is a grouped project activity. The project was registered with one project instance (Project Instance 1 – Kruger 2 Canyons (PI1-K2C)) and the second project instance (Project Instance 2 – Waterberg (PI2-WB)) was included to the grouped project activity during the previous monitoring period, i.e. Monitoring Period 1.

To assess the compliance of the new stoves distributed in the existing project instances PI1-K2C and PI2-WB, with the grouped project activity, following steps were undertaken:

1. Desk Review of the MR/01/, specifically section 2.3 of the MR/01/ and compliance with the registered PD.

2. Remote audit to assess the implementation/ operation status and compliance to the eligibility criterion by the project instance as detailed in the section 2.3 of the MR.
3. Preparation of the draft verification report with assessment of the new project instance in accordance with the §3.5.16 of the VCS Standard version 4.2/B01/.

The compliance to the eligibility criteria of the grouped project activity is demonstrated below:

Eligibility criteria of the grouped project activity

The eligibility criteria have been provided clearly in section 2.3 of the MR/02/ and then justification provided for each of the project instances. The new stoves distributed in the existing project instances PI1-K2C and PI2-WB in South Africa meet the requirements of eligibility criteria and are thus eligible to be included in the grouped project activity.

Sl. No.	Eligibility criteria description in the PD	Means of proof (Information/document) required as listed in the PD	Assessment by the validation team
1	Project Instances (PIs) must meet the applicability conditions set out in the applied methodology.	All newly distributed stoves adhere to the applicability conditions in the VMR0006 methodology as demonstrated in section 3.3.1 of this report.	PP has demonstrated the compliance with the applicability conditions of the methodology VMR0006, version 1.1/B02/ in the section 3.3.1 of the monitoring report/02/. Based on the review of the monitoring report/02/, it is confirmed that project instances comply with the eligibility criterion and the condition stated.
	Each new PI must demonstrate compliance with the applicability conditions set out in the employed methodology: VMR0006.		
2	Use the technologies or measures specified in the project description.	The manufacturer's technology description. All newly distributed ICS were the Rocket Works Zama Zama rocket stove. The ICS delivers a level of service at least equivalent to the baseline appliance as evidenced in the technology description.	PP has provided the manufacturer's technology description to confirm that the that the ICS distributed delivers a level of service at least equivalent to the baseline appliance. Based on the review of the technology description, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
	Only ICS that conform with the GP description are to be distributed in the project. The ICS will be chosen to deliver a level of service at least equivalent to the baseline appliance.		

3	Apply the technologies or measures in the same manner as specified in the project description.	a) The manufacturer's technology description describes the applicability of the ICS technology to be distributed in both PIs.	PP has provided the manufacturer's specifications and the monitoring and sales database has been checked to confirm that the applied technologies and measures in the same manner as specified in the PD/B04/. Based on the review of the documents stated above, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
	The ICS distributed in the PIs will adhere to the GP description and replace biomass burned in the baseline scenario.	b) End users will be asked to state their source of energy and baseline appliance at the point of distribution and during the project monitoring. c) This information will be stored in the monitoring and data collection database.	
4	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	a) GPS/location data captured from each end user, and stored in the monitoring and data collection database demonstrate the location of the newly distributed ICS in both PIs within South Africa.	The boundary for the grouped project activity is provided as the geographical boundary of the host country, South Africa. The project instances are located in South Africa. The baseline survey has been assessed for both the PIs in the previous monitoring period. Based on the review of the section 3.3.4 of the MR/02/ and the baseline survey, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
	All new PIs will be implemented only in regions within the geographic borders of South Africa subject to the same baseline scenario determined in Section 3.4 of the latest version of the Project Description.	b) Both PIs are subject to the same baseline scenario described in Section 3.4 of the latest version of the Project Description as identified and demonstrated by baseline surveys.	
5	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	There is no government mandated programme or policy in South Africa ensuring the distribution of new project activity instances or fuel efficient cookstoves.	PP has confirmed/02/ that there are no South African government programmes or policy for cookstoves for dissemination of ICS. The end user agreement confirms that project instance installs or distributes stoves at zero cost to the end-user and
	All new PIs will use the activity method for demonstration of additionality and of: Step 1: Regulatory Surplus There is no government mandated programme or policy	1. Both PIs comply with the positive list in the methodology and satisfies criterion 1 as it meets all the applicability conditions	

	in host country of this project ensuring the distribution of new project activity instances. Step 2: Positive List The inclusion of new project activity instances will comply with the positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology. 1. Where the project activity installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits, the project activity shall be deemed additional. 2. Project activities that are implemented as part of government schemes or are supported by multilateral funds cannot be considered additional even if the stoves are distributed free of cost or at a highly subsidized rate and hence are not eligible to use this methodology. PIs under the GP will not result in the diversion of official development assistance.	of the methodology. 2. The End User Agreements confirm that the PIs “installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits” The PIs are not implemented as part of a government scheme nor are they supported by multilateral funds. This is evidenced through Agreements with investors (confidential parts of the document may be redacted). The CME confirms that no PI will result in the diversion of official development assistance.	has no other source of revenue other than the sale of GHG credits. CME has also confirmed that the project instance will not result in the diversion of official development assistance. Based on the review of the MR/02/ and the end user agreements, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
6	Where a capacity limit applies to a project activity included in the project, no project instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: - Each project activity instance that exceeds one percent of the capacity limit shall be identified. - Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. - None of the clusters shall exceed the capacity limit and no	A capacity limit does not apply under the VMR0006 methodology.	There are no capacity limits applicable under the methodology VMR0006, version 1.1/B02/. Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.

	further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit. The VMR0006 methodology does not contain a capacity limit.		
7	Occur within one of the designated geographic areas specified in the project description. a) New project activity instances will be located within the geographic boundaries of South Africa and defined in the instance description document. b) GPS/location data captured from each end user will demonstrate the location of the project and of each PI.	a) The geographic boundary of all newly distributed ICS is demonstrated to be within South Africa as evidenced by b). b) The GPS/location data captured from each end user demonstrating the location of the stoves distributed withing the PIs are provided. The GPS/location information is stored in the monitoring and data collection database.	PP has provided the location of the project instances. The project instances are located within the geographic boundaries of South Africa as provided in the section 3.3.3 of the MR/02/. The location data and GPS has also been confirmed through the review of monitoring and sales database for the grouped project activity. The revised KML of the project instances is also provided by the project proponent. Based on the review of the MR/02/, location map and monitoring and sales database, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
8	Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of eligibility criteria is insufficient. Compliance of new PIs will be evaluated exclusively against the eligibility criteria listed in this table.	All newly distributed ICS comply with the full set of eligibility criteria for the inclusion under the existing project activity instances as described in this table and Table 2 of the PDD.	PP has confirmed that the project instances comply with the full set of eligibility criteria for the inclusion of new project activity instances. Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
9	Be included in the monitoring report with sufficient technical, financial, geographic, and other relevant information to	The evidence relevant to local stakeholder engagements, baseline surveys and applicable	PP has provided the appropriate evidence for the local stakeholder engagements, baseline

	demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body. New PIs will be described in the monitoring report with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body. Monitoring data of PIs will be stored in the monitoring database, which will also allow for sampling by the validation/verification body. Evidence of relevant information such as local stakeholder engagements, baseline surveys and applicable provisions will be included when submitting for PI validation at verification.	provisions was submitted alongside this Monitoring Report and at validation of the instance inclusion. Complete descriptions of the two existing PIs are included in the PDD and in the first Monitoring Report Section 3.4. Monitoring data for all stoves distributed across the GP is provided to the VVB at verification.	surveys and applicable provisions to confirm that monitoring report is provided with sufficient technical, financial, geographic, and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body. Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
10	Be validated at the time of verification against the applicable set of eligibility criteria. New PIs will be submitted for validation against the applicable set of eligibility criteria at the time of verification.	No new PIs were included in this monitoring period	Only additional stoves have been included in the respective project instances during the monitoring period and no new PIs were included in this monitoring period. Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
11	Have evidence of project ownership, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance began reducing or removing GHG emissions).	Project ownership of the Grouped Project, which includes all PIs, is demonstrated in Section 1.7 of the latest version of the PDD. This is confirmed as being with the Coordinating/ Managing Entity (CME) of the GP, which is TASC SA (Pty) Ltd.	PP has provided the details of the project ownership for the grouped project activity. Furthermore, the end user agreements have ensured that the ownership of the credits is transferred to the PP.

	New PIs will demonstrate ownership by the project proponent, from the start date of the PI. Project ownership, as described in Section 1.7 of the latest version of the PDD, is applicable to all PIs included in this GP.	For all existing PIs, the End User Agreement contains the unique serial number that is embossed onto each ICS and are signed by the end user at the point of distribution. The End User Agreement includes the statement: "I understand that I have received the stove free of charge and that, in order to cover the costs of the stove, TASC SA (Pty) Ltd will claim the CO2 emissions reductions from the stove and sell these as carbon credits" All newly distributed ICS are unique in the project boundary demonstrated by the unique serial numbers that are recorded as part of the data collected at the point of distribution. As per section 3.6.1 of the VCS Standard, the End User Agreement is "An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the plant, equipment or process that generates GHG emission reductions and/or removals which vests project ownership in the project proponent."	Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
12	Have a start date that is the same as or later than the grouped project start date.	The date of distribution for all newly distributed ICS, which is later than the grouped project start date, is included in the distribution database provided with this monitoring report.	The start date of the grouped project activity is 20/08/2021. The start date of the project instance PI2-WB is 03/09/2021. Thus, it is confirmed that the start date of distribution is later than the grouped project

	New PIs will have a start date that is the same as or later than the GP start date. Distribution of the efficient cookstoves in the respective PIs will begin at the start date of the GP, or later. Distribution data including distribution dates will be collected and stored on the distribution database. The sale of the first device marks the start date.		start date. Based on the review of the MR/02/, it is confirmed that the new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.
13	Be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). New PIs will be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). New PIs will be eligible for crediting from the start date of the instance through to the end date of the project crediting period on 19 August 2031.	All newly distributed ICS in this monitoring period are eligible for crediting from the distribution date (which is after the respective PI start dates) until the end of the project crediting period on 19 August 2031.	The new ICS distributed in the project activity are eligible for crediting from the start date of the distribution to the end date of the grouped project activity crediting period. Based on the review of the MR/02/, it is confirmed that new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criterion and the condition stated.

Overall, verification team confirms that the no new project activity instances were included during the monitoring period and inclusion of new stoves distributed in the existing project instances PI1-K2C and PI2-WB comply with the eligibility criteria.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The implemented grouped project activity involves distribution of fuel efficient improved cookstoves (ICS) to local communities in South Africa, who rely on baseline open-fire wood-fuelled cooking. The ICS disseminated under this grouped project activity is based on rocket stove design principles, which reduces GHG emissions from biomass burning through improved combustion efficiency of wood fuel and decreased wood fuel consumption. During the monitoring period, a total of 327,876 (326,250+1,626) Rocket Works Zama Zama rocket stoves were distributed in the two applicable project instances (PI1-K2C and PI2-WB) of the grouped project activity in South Africa. Overall, a total of 442,592 ICS have been distributed in the project activity since the start date of the grouped project activity. A total of 326,250 stoves were distributed

during the reported monitoring period (MP2). In the first monitoring period (MP1), 116,342 ICS were physically distributed, but 1,626 ICS were not included in the ER calculations due to incorrect data. These stoves have been included in the reported monitoring period (MP2), thus a total of 327,876 distributions have been considered for the MP2.

In the absence of project activity, the uses of low efficiency three stone stoves would be continued and resulted into higher biomass consumption. It is assumed that in the absence of the project activity, the baseline scenario would be the use of non-renewable biomass for meeting similar thermal energy needs. The monitoring period 10/02/2022 to 31/01/2023 covered all these stoves.

During the onsite visit, CCIPL was able to verify that the project has been implemented as planned and as mentioned in the registered VCS-PD by visiting a sample of 11 households from the Habit Surveys, selected at random from the records available at the offices of the PP and the survey samples. It was observed during the onsite surveys that a habit survey participant was not using a 3- stone fire as a baseline device, thus, PP has considered the household as an inactive user and the PP's sample has been revised to indicate a drop out for the household. This is in accordance with the §38(b) of the Standard: Sampling and surveys for CDM project activities and programmes of activities, Version 09.0 and PP has revised estimation of emission reduction to err on the conservative side.

CC IPL verification team performed samples among households included in the monitoring system. The samples were chosen from the list of households where the usage surveys were carried for the monitoring parameters $N_{y,i,j}$ and μ_y .

To verify the result of the calculation of confidence/precision, CCIPL has followed the Guideline: Sampling and surveys for CDM project activities and programmes of activities, version 4/B05-2/ and Standard: Sampling and surveys for CDM project activities and programmes of activities, version 9/B05-1/.

The project is registered under VCS with VCS ID 2505 in South Africa. The project crediting period under VCS is valid from 10/02/2022 to 31/01/2023. Project participant has provided confirmation during the onsite visit assessment that the carbon credits claimed under VCS will not be double counted under any other program.

Overall, the project activity was implemented as described in the registered/included VCS-PD/B04/. Verification team confirmed that the grouped project activity and project instance implementation is in accordance with the project description contained in the registered/included VCS-PD/B04/. No material discrepancies were identified between project implementation and the project description.

Based on the above assessment, verification team concluded that all physical features of the project activity in the registered VCS-PD/B04/ are in place and that the project participant has operated the project activity as per the registered VCS-PD/B04/.

The grouped project activity has been implemented that result in the sustainable development contributions described in the monitoring report/02/. The project contributes to the following SDGs:

SDG13: Tonnes of greenhouse gas emissions avoided or removed; Contribution for the reported monitoring period is 918,187 tCO_{2e}.

SDG 3: Number of households with improved indoor and ambient air quality due to reduced; 73% of the surveyed households reported reduction in smoke while cooking on the project ICS vs. the baseline fire in this monitoring period.

SDG 7: Number of households with access to clean fuels and technology. 327,876 households received ICS during this monitoring period.

SDG 12: Domestic fuel consumption. Contribution for the reported monitoring period is a reduction of domestic fuel consumption by an average of 2.51 t/HH/yr.

The SDGs are defined by the project proponent based on the project activity and deemed appropriate for the type of project activity.

Overall, the project has been implemented in accordance with the registered VCS-PD/B04/. No deviations have been proposed by the project proponent during the monitoring period.

4.2 Safeguards

4.2.1 No Net Harm

The grouped project activity involves distribution of improved cookstoves. No potential negative environmental or socio-economic impacts have been identified for the grouped project activity. This was also confirmed through the review of the VCS PD/B04/, MR/02/ and confirmed during the onsite visit.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultations were conducted prior to the implementation of the Project Instances following the implementation plan for engaging with local stakeholders outlined in the latest Project Description. PP has also provided for a mechanism for ongoing communication with the local stakeholders of the project activity. The details for the project proponent and the respective implementation partners have been provided for the continuous grievance mechanism. All the meetings carried out during the monitoring period for the project instances are provided in the section 2.2 of the monitoring report. The details of the comments made by the local stakeholders during the consultation process are provided in the section 2.2 of the monitoring report.

4.3 AFOLU-Specific Safeguards

For non-AFOLU projects, this section is not required.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The monitoring has been carried out in accordance with the provision of monitoring plan; the verification team reviewed if:

- The monitoring of reductions in GHG emissions resulting from the VCS project activity were implemented in accordance with the monitoring plan contained in the registered VCS-PD.
- The monitoring plan and the applied methodologies had been properly implemented and followed by the project participants.
- All parameters stated in the monitoring plan, the applied methodologies and relevant standards and requirements had been sufficiently monitored and updated.

- The responsibilities and authorities for monitoring and reporting were in accordance with the responsibilities and authorities stated in the monitoring plan.

The monitoring system and all applied procedures are in compliance with the monitoring plan contained in the registered VCS-PD/B04/ and the applied methodology VMR0006 version 1.1/B02/, based on the information included in the final monitoring report, there are several procedures for data collecting depending on the methodology applicable for each step of the project. Organizational Structure has been provided in the MR along with the roles and responsibilities.

The parameters and sampling measures taken are detailed below:

Parameter	Description of Parameter	Sampling approach (outcome in brackets)
$N_{y,i,j}$	Number of project devices of type i and batch j operating during year y	Visual inspection of the premises to see if the project stove is operational and in use. Interview with end user to verify that project stove is still in use (Yes/No)
$B_{y=1,new,i,j,survey}$	Quantity of woody biomass used by project devices in tonnes per device of type i .	This parameter is not monitored during the monitoring period as PP has applied the values determined in the first year of the implementation of the project through a sample survey.
μ_y	Adjustment to account for any continued use of pre-project devices during the year y	Interview with end user and visual inspection to determine if a pre-project (replaced) stove is still being used in addition to project stove (Yes/No)

PP conducted sampling surveys to gather information needed for the monitoring of $N_{y,i,j}$ and μ_y parameters.

Sampling captured information on monitoring variables with required confidence/precision (90/10 for individual PIs on an annual basis, or 95/10 confidence/precision basis for groups of PIs or sampling on a biennial basis). PP has applied 95/10 confidence/precision for sampling as a group of PIs is being sampled together. A simple random sampling was used.

Based on a population of 442,592 households, a sample size of 89 was determined based on expected proportion of 0.812, a sample size of 89 has been determined for the monitoring parameter $N_{y,i,j}$. The applied confidence interval and precision level is 95/10 (appropriate for a group of PIs). The expected proportion is thus in accordance with the §5 of the Appendix 1 of the sampling guidelines, version 4/B05-2/. In accordance with the section 8.4 Option (b) of the VMR0006, version 1.1 of the methodology/B02/, i.e. Project target population > 1000: Minimum sample size 100, PP has applied a sample size of 100 for the parameter $N_{y,i,j}$ and μ_y . The relative precision obtained in 9.2 % for the parameter $N_{y,i,j}$. The relative precision for the parameter μ_y is not applicable as the simplified minimum sample size option (b) has been applied in accordance with the §8.4 of the methodology VMR0006, version 1.1/B02/ and thus confidence/precision requirements are not required for the sample. The simplified approach allows the parameters listed under Sections 9.1 and 9.2 of the methodology VMR0006, version 1.1/B02/ to determined based on simplified sample size, in which case it is not requisite for the sample size to meet confidence/precision requirements.

In line with §26 of the Sampling Standard, version 9/B05-1/, the verification team has applied an acceptance sampling approach for onsite visit as part of the verification. Now as the PP had applied sampling approach, the verification team has chosen acceptance sampling for the parameter $N_{y,i,j}$ and μ_y in accordance with the §28 of the sampling standard, version 09 /B05-1/.

VVB used sampling during verification for checking the PP's sample size. In accordance with the §31 and §32 of the sampling standard, version 09/B05-1/, a sample size of 11 was required based on an AQL of 0.5 % and UQL of 20 %, producer risk 10 % and consumer risk 10 %. The AQL and UQL selected is based on the Table 2 of the sampling standard, version 09/B05-1/ and complies with the requirements provided in §31 and §32 of the sampling standard, version 09/B05-1/. Acceptance number (c) thus determined for the sample is 0. It was observed that out of the 11 samples for Habit Surveys, all 11 stoves were found to be operational. However, it was observed during the VVB surveys that a household reported to not using wood fuel in the baseline scenario. Thus, one discrepant records were observed with the MR /02/ and the ER sheet /03/ with an acceptance number of c=0. PP has thus applied the option provided in the § 38(b) of the Standard: Sampling and surveys for CDM project activities and programmes of activities, version 09.0/B05-1/ and revised estimation of emission reduction to err on the conservative side. Thus, PP's set of records has been accepted in line with §38 of the sampling standard, version 09 /B05-1/. Verification team has cross verified these sample documents during the onsite visit interviews.

Emission reduction (ER)

The methodology does not calculate baseline and project emissions separately.

The steps taken and the equations and parameters applied in the VCS-PD/02/ to calculate the project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology including applicable tool(s).

Quantification of baseline emissions:

According to section 8.4 of methodology VMR0006, version 1.1/B02/, emission reductions shall be calculated as:

$$ER_y = \sum_i \sum_j ER_{y,i,j}$$

Where;

i = Indices for the situation where more than one type of project device is introduced to replace the pre-project devices

j = Indices for the situation where there is more than one batch of project device

ER_y = Emission reductions during year y in tCO₂e

$ER_{y,i,j}$ = Emission reductions by project device of type i and batch j during year y in tCO₂e

Since the grouped project activity involves the deployment of improved cookstove, the following equation 2 is applicable as per methodology VMR0006, version 1.1/B02/:

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

$B_{y,savings,i,j}$: Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y

$f_{NRB,y}$: Fraction of woody biomass that can be established as non- renewable biomass (f_{NRB})

$NCV_{wood\ fuel}$: Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne)

$EF_{wf, CO2}$: CO2 emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO₂/TJ)

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

$N_{y,l,j}$: Number of project devices of type i and batch j operating during year y

0.95 : Discount factor to account for leakage

The quantity of woody biomass saved, $B_{y,savings,i,j}$, due to implementation of improved cookstoves can be estimated by one of the following options set out in Equations 3 and 4:

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

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

The efficiency of the project stoves can be estimated using Equation 5:

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

η_p Efficiency of project cookstoves (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 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.

Quantification of project emissions:

Project emissions are not applicable to the grouped project activity as the applied methodology, VMR0006, version 1.1/B02/, provides a direct equation for the calculation of emission reductions and does not provide calculations of project emissions separately.

Quantification of leakage emissions:

In accordance with the section 8.3 of the applied methodology, VMR0006, version 1.1/B02/, a default factor of 0.95 to account for leakage has been applied.

Verification team confirms that all relevant assumptions and data are listed in the project description, including their references and sources and that all data and parameter values used in the project description are considered reasonable in the context of the project and all estimates of the baseline emissions can be replicated using the data and parameter values provided in the project description. No uncertainties associated with the calculations of emissions have been observed by the validation team.

Project Emission (PE)

Not Applicable.

Leakage (L)

Not Applicable.

According to the applied methodology, a net-to-gross adjustment factor of leakage of 0.95 is applied to calculate the emission reductions for the monitoring period.

Ex-ante parameters:

Parameter	Value	Source	Assessment
Bold,p	5.49 (PI1-K2C) 5.00 (PI2-WB)	Field Baseline Survey Report by TASC	The baseline fuelwood consumption data is sourced from the baseline survey conducted by Promethium Carbon in the applicable geographical boundary. The results were cross-checked with the PD and monitoring report for MP1/B04/.
f _{NRB,b,y}	0.89 (PI1-K2C) 0.99 (PI2-WB)	Calculated based on the CDM TOOL 30 "Calculation of the fraction of non-renewable biomass" v3.0 for PI1-K2C and PI2-WB.	The assessment of the values for the PI2-WB is provided in the monitoring period 1/B04/. The values for PI1-K2C have been cross checked with the registered PD/B04/.
EF _{WF,CO2}	112 tCO ₂ e/TJ	VMR0006 methodology default/B02/: IPCC default for wood fuel	The value has been cross-checked with the methodology, VMR0006, version 1.1/B02/.
EF _{WF,non-CO2}	26.23 tCO ₂ e/TJ	VMR0006 methodology default/B02/: IPCC default for wood fuel	The value has been cross-checked with the methodology, VMR0006, version 1.1/B02/.
η _p	38.3 %	University of Johannesburg SeTAR Centre test report on	The value has been cross-checked with

		Rocket Works' Zama Zama stove; February 2013	the registered PD/B04/.
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Monitored parameters:

Data / Parameter	Number of project devices of type i and batch j operating during year y ($N_{y,i,j}$)
Measuring frequency	At least once every two years
Recording frequency	At least once every two years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	Survey Form
Value(s) of monitored parameter	362,925
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the 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 crosschecked with other available data?	Yes, the reported data has been cross-checked with the monitoring usage survey records and the data has been found consistent. Sampling approach has been assessed above. The reported value also represents the operational stoves during the monitoring period and since 82 out of the 100 users surveyed reported that they use the stoves, a factor of 0.82 has been used to calculate the proportion of operational stoves.

How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/04/ and the raw data provided therein.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

Data / Parameter	Efficiency of the device of each type i and batch j implemented as part of the project activity ($\eta_{new,i,j}$)
Measuring frequency	Annually
Recording frequency	Annually
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the stated measuring and reporting frequency of the parameter is in accordance with the MR and the methodology deviation provided.
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.3637 for stoves distributed in this monitoring period 0.3600 for stoves older than one year
Is accuracy of the monitoring equipment as stated in the PD?	The value of the parameter is determined based on the equation 5 of the methodology, VMR0006, v1.1/B02/.
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA. The value of the parameter is determined based on the equation 5 of the methodology, VMR0006, v1.1/B02/.
Company performing the 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 crosschecked with other available data?	This monitored data has been cross-checked with the ER sheet/04/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/04/.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

Data / Parameter	Quantity of woody biomass used by project devices in tonnes per device of type i ($B_{y=1,new,i,j,survey}$)
Measuring frequency	Determined in the first year of project implementation
Recording frequency	Determined in the first year of project implementation
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	This parameter is not monitored during the monitoring period as the value is determined during the first year of the project implementation. The values determined in the first year of project implementation have been used by the project proponent.
Type of monitoring equipment	NA
Value(s) of monitored parameter	NA.
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the 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 crosschecked with other available data?	NA
How were the values in the monitoring report verified	NA
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA

Data / Parameter	Adjustment to account for any continued use of pre-project devices during the year y (μ_y)
Measuring frequency	At least one every two years
Recording frequency	At least one every two years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	Monitoring survey
Value(s) of monitored parameter	0.417
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the 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 crosschecked with other available data?	Yes, the reported data has been cross-checked with the monitoring usage survey records and the data has been found consistent. Sampling approach has been assessed above.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/04/ and the raw data provided therein.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

Data / Parameter	Efficiency of baseline stove (η_{old})
Measuring frequency	Fixed for each individual household at the time of project implementation
Recording frequency	Fixed for each individual household at the time of project implementation
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.1
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA

Company performing the 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 crosschecked with other available data?	Yes, the reported data has been cross-checked with the methodology default value of 0.1 as used by the project participant/B02/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the ER sheet/04/ and the methodology, VMR0006, version 1.1/B02/.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

Data / Parameter	Operating lifetime of project device (Life Span)
Measuring frequency	Once at point of distribution
Recording frequency	Once at point of distribution
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	5 years
Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA

Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the 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 crosschecked with other available data?	Yes, the reported data has been cross-checked with the manufacturer declaration on the stove lifetime/06-8/.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the manufacturer declaration on the stove lifetime/06-8/.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

Data / Parameter	Net calorific value of the non-renewable woody biomass, renewable biomass, briquettes or pellets used in project devices (NCV_{biomass})
Measuring frequency	Annual
Recording frequency	Annual
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	NA
Value(s) of monitored parameter	0.0156 TJ/tonne

Is accuracy of the monitoring equipment as stated in the PD?	NA
Calibration frequency /interval	NA
Is the calibration interval in line with the monitoring plan of the PD?	NA
Company performing the 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 crosschecked with other available data?	Yes, the reported data has been cross-checked with the methodology, VMR0006, version 1.1/B02/. PP has used the IPCC default value for wood fuel.
How were the values in the monitoring report verified	The values in the monitoring report were verified through the comparison with the values in the methodology, VMR0006, version 1.1/B02/.
Does the data management (from monitoring equipment 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 are necessary QA/QC processes in place.

A comparison of the emission reductions observed for monitoring period 1 and monitoring period 2 has been provided in the section 5.4 of the MR/02/. The emission reductions per stove in the reported monitoring period for stoves with age less than 1 year is 3.6355 tCO₂e/stove/ year for PI1 and 3.5594 tCO₂e/stove/ year for PI2. The emission reductions per stove in the reported monitoring period for stoves with age more than 1 year and less than 2 years old is 3.6355 tCO₂e/stove/ year for PI1 and 3.5594 tCO₂e/stove/ year for PI2. The emission reductions per stove during the previous monitoring period were 3.883 tCO₂e/stove/ year, thus presenting a reduction compared to the previous monitoring period. PP has provided the reasons for the change in the per unit emission reductions in the section 5.4 of the MR. The justification provided by the PP has been assessed by the verification team:

S. No.	Justification	Assessment
1	The PP expected to see an increase in per-ICS ERs for this MP, but this actually decreased for the following reasons:	PP has justified the reason for the decrease in the per unit emission reductions as the use of survey data for determination of the wood fuel usage in the households and a 9.1% discount was applied to stove

	1. Relying solely on survey data and a default ICS efficiency in MP1 and MP2 creates some uncertainty in understanding the actual use of wood fuel on a day-to-day basis in project households. Fuel use savings and associated baseline stove usage are not measured in the household, but ascertained via a survey. This approach has led to a high level of actual ICS usage being discounted proportionally. 2. Following the identification of a single discrepant record in the monitoring sample by the VVB, a 9.1% discount was applied to stove operating days for households where the baseline stove was not an open-fire. Therefore, a large proportion of the distribution database is excluded from the ER accounting.	operating days for households where the baseline stove was not an open-fire. This was based on the discrepancy observed during the VVB surveys compared to the PP's survey. PP has applied the discount factor in accordance with the § 38(b) of the Standard: Sampling and surveys for CDM project activities and programmes of activities, version 09.0/B05-1/ and revised estimation of emission reduction to err on the conservative side.
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PP provided the spreadsheets used for calculating the GHG emission reductions. CCIPL has reproduced all these calculations to obtain the same results, hence, they are deemed quantified correctly in accordance with the project description and applied methodology; consistent with the evidence provided and cross-checked by CCIPL. Furthermore, appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed, and assumptions and emission factor correctly applied and justified.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

CC IPL was able to confirm that the calculations are based on authentic data. The spreadsheets used to calculate the VCU calculations, and all figures were tracked, checked and found to be consistent.

The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the onsite visit audit assessment to confirm the authenticity of the documents and to check the correctness of the calculation.

The verification team can confirm that sufficient evidence is available for the whole monitoring period and the same is verifiable and that the data collection system meets the requirements of

the monitoring plan and the applied methodology according to the assessment carried out onsite visit audit assessment and in the document review.

4.6 Non-Permanence Risk Analysis

As the project activity is a non-AFOLU project activity no risk related to non-permanence has been identified for the project activity.

5 VERIFICATION OPINION

Carbon Check (India) Private Limited has performed the verification of the grouped project activity “Fuel Efficient Cooking in South Africa” in South Africa, with regards to the relevant requirements for VCS project activities.

The conclusions can be summarised as follows:

- The project is implemented and installed as planned and described in the registered VCS PD/B04/ and the grouped project activity confirms with the verification criteria for project and their GHG emission reductions or removals set out in the VCS rules.
- The monitoring plan is in accordance with the applied approved methodology, i.e. VMR0006, version 1.1/B02/ and monitoring plan as sought out in the registered VCS-PD/B04/.
- The monitoring system is in place and functional. The project has generated verifiable GHG emission reductions.

As the result of the verification of project activities, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. Carbon Check (India) Private Ltd. herewith confirms that the project has achieved emission reductions in the below mentioned reporting period as follows. The project complies with the verification criteria for projects and their GHG emissions reductions or removals set out in VCS rules. The GHG statement provided herein is the responsibility of the project proponent and project conforms with the verification criteria for projects and their GHG emission reductions or removals set out in VCS Version 4. The project has been implemented in accordance with the project description and subsequently validated variations (project instance inclusions and project description deviations).

For the project description deviation included in the project activity, the project conforms with the validation criteria for projects set out in VCS Version 4.

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the monitoring data for all the parameters of the monitoring plan based on the sampling measures used by the project proponent and confirms that the reported emission reductions are free from any type of material errors.

Verification period: From [10-February-2022] to [31-January-2023]

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

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)
Year 2022 (10-February-2022– 31-December-2022)	801,138	0	0	801,138
Year 2023 (01-January-2023– 31-January-2023)	117,049	0	0	117,049
Total	918,187	0	0	918,187

The summary of emission reductions for each vintage with the comparison of values reported in the ex-ante estimates is provided below:

Year	Ex-ante emissions reductions /removals	Achieved emissions reductions/r emovals	Percent difference	Justification for the difference
Year 2022 (10-February-2022– 31-December-2022)	1,828,504	801,138	-56.18%	Although more stoves were distributed in the project scenario than in the ex-ante calculations (442,592 vs. 382,000) the different discounts applied resulted in the lower achieved emission reductions. 1. the baseline quantity woody biomass was reduced by 34% to account for continued baseline stove usage alongside the ICS in the project scenario. 2. an 18% reduction was further applied to the ERs to account for project stoves that are not in use. 3. another 9.1% discount was applied to the ERs to account for the proportion of households that were found to have a baseline stove discrepancy.

Year 2023 (01-January-2023– 31-January-2023)	266,972	117,049	-56.18%	Although more stoves were distributed in the project scenario than in the ex-ante calculations (442,592 vs. 382,000) the different discounts applied resulted in the lower achieved emission reductions. 1. the baseline quantity woody biomass was reduced by 34% to account for continued baseline stove usage alongside the ICS in the project scenario. 2. an 18% reduction was further applied to the ERs to account for project stoves that are not in use. 3. another 9.1% discount was applied to the ERs to account for the proportion of households that were found to have a baseline stove discrepancy.
Total	2,095,476	918,187	-56.18%	Although more stoves were distributed in the project scenario than in the ex-ante calculations (442,592 vs. 382,000) the different discounts applied resulted in the lower achieved emission reductions. 1. the baseline quantity woody biomass was reduced by 34% to account for continued baseline stove usage alongside the ICS in the project scenario. 2. an 18% reduction was further applied to the ERs to account for project stoves that are not in use. 3. another 9.1% discount was applied to the ERs to account for the proportion of households that were found to have a baseline stove discrepancy.

APPENDIX 1: REFERENCES

S. No.	Document
/01/	1. VCS Monitoring report (draft) version 1.0 dated 23/01/2023
/02/	VCS Monitoring Report (final) version 4.2 dated 27/06/2023
/03/	1. ER spread sheet corresponding to /01/
/04/	ER spread sheet corresponding to /02/
/05/	Project Device Distribution Database for: 1. Project Instance 1 2. Project Instance 2
/06/	Habit Survey records for: 1. Project Instance 1 2. Project Instance 2
/07/	KPT Survey records for: 1. Project Instance 1 2. Project Instance 2
/08/	Local Stakeholders community meeting records
/09/	Habit Survey and KPT Training: 1. Training Records dated 23/09/2022 2. Training Material
/10/	KPT monitoring equipment specifications and purchase receipts: 1. Brentwood Spring-Dial Hoist Scales and purchase receipt 2. Ryobi MM-100 and MM-210 moisture meters and purchase receipt
/11/	Sample End User carbon waiver agreements
/12/	Stove efficiency test reports dated 11-12 February 2013 – SeTAR centre, University of Johannesburg
/13/	Community and Project Support Teams initiatives
/B01/	1. VCS Standard, version 04.4 2. VCS Program Guide version 04.3 3. VCS Validation and Verification Manual, version 03.2 4. Registration and Issuance Process v4.3 5. VCS Program Definitions version v4.3
/B02/	1. VCS Methodology: VMR0006 ver. 1.1 – Methodology for Installation of High Efficiency Firewood Cookstoves
/B03/	VCS MR Template version 4.2
/B04/	1. Registered VCS-PD (version 4.0 dated 18/02/2022 and the corresponding Validation Report) 2. Monitoring Report (version 4.0 dated 14/06/2022 and the corresponding Verification Report) for the 1 st monitoring period
/B05/	1. Standard for sampling and surveys for CDM PAs and PoAs, version 09

	2. Guidelines for sampling and surveys for CDM project activities and programme of activities (version 04.0)
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APPENDIX 2: ABBREVIATIONS

BAU	Business As Usual
CA	Corrective Action / Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DOE	Designated Operational Entities
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
IPCC	Intergovernmental Panel on Climate Change
MW	Megawatts
MWh	Mega Watt Hour
OSV	On Site Visit
PV	Solar Photovoltaic
QC/QA	Quality control/ Quality assurance
TA	Technical Area
TASC	The African Stove Company Limited
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VVB	Validation / Verification Body

APPENDIX 3: COMPETENCY CERTIFICATE



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Anubhav Dimri

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

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India, South Africa and Spanish speaking countries		

in the following Technical Areas:

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

Issue Date

1st January 2023

Expiry Date

31st December 2023



Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

CC IPL_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/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

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

in the following Technical Areas:

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

Issue Date
1st January 2023

Expiry Date
31st December 2023


Mr. Vikash Kumar Singh
Compliance Officer


Mr. Amit Anand
CEO

APPENDIX 4: LIST OF FINDINGS

TABLE 1: CORRECTIVE ACTION REQUESTS (CARs) AND CLARIFICATION REQUESTS (CLs)

Finding	CAR 01
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (VVB)	In accordance with the requirements of the §3.5.4 of the VCS Standard, version 4.4, PP has not used the latest version of the form for the monitoring report.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	The revised MR template is only required from 1 April 2023. Verra Webinar on Overview of December 2022 VCS Program Updates 31:00 (https://vimeo.com/user9657739)
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has clarified that the revised templates are effective from 01/04/2023 and has decided not to use the latest version of the MR template. CAR01 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 02
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding (VVB)	- In the section 4.3.1 of the MR, the precision level achieved for the project activity is not provided. - The sample size calculator and randomizer for the sampled household selection has not been provided to the verification team.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	- The precision level achieved is included in the Monitoring Plan under section 4.3.5: Analysis. - Sample size calculator shared. "2505_MRV2_Meth_guid48Calculator_03Feb2023.xlsx" Text was added to section 4.3.5 of the MR to include: "Each stove in the distribution database was assigned a random number using the Excel RAND() function. The

	database subsequently sorted the unique stove entries based on the random number assigned in ascending order. This random database selection was performed twice for both the Habit and KPT surveys. The first 100 and 45 random numbers were selected as samples, from each random database selection, for the Habit and KPT surveys, respectively.” The random number is evident in column A of the “Sample set” worksheet of the workbooks <i>2505_MRV2_Habit Surveys_v1</i> and <i>2505_MRV2_KPT_v1.2</i>. The list of random numbers assigned to stoves is provided. The random number was pasted as a hard coded number to avoid the RAND() function from automatically recalculating every time an action is performed on the workbook. In this way it is also impossible to recreate the exact random selection again. Text was also added to the MR and sample size calculator to reference what informed the expected proportion and mean parameters.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has clarified that the achieved precision level for the sampled parameters is provided in the section 4.3.5 of the MR. CAR02.1 is closed. 2. The sample size calculation and the selection of random households has been provided in the section 4.3.5 of the MR. CAR02.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 03		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	1. The emission reduction calculations as provided in the ER calculations workbook of the ER sheet uses 09/02/2022 as the start date of the monitoring period. PP has claimed the emission reductions during MP1 till 09/02/2022 and is deemed a case of double counting. 2. The number of stoves distributed, stove days and the ERs have been presented for the years 2021 and 2022 in the ER sheet, even		

	though the monitoring period starts on 09/02/2022.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. The ER calculations workbook was updated to use 10/02/2022 as the start date of the monitoring period in the emission reduction calculations. The updated workbook is titled "2505_MRV2_ER SA Verra_v5_03 March 2023.xlsx" 2. The ER workbook was updated to clarify that the distinction between the stove distribution year and the ER vintages. 2021 and 2022 refers to the year in which stoves were distributed, not when ERs were generated. The ER vintages were calculated only for respective monitoring period years (2022 & 2023).
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has revised the ER calculations workbook and uses 10/02/2022 as the start date of the monitoring period. CAR03.1 is closed. 2. PP has clarified that the mentioned years were stove distribution years and have been clarified in the ER sheet. The ERs for different vintages have also been provided. CAR03.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 04		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	1. In the section 4.2 of the MR, for the monitoring parameter $B_{new,KPT,i,j}$, PP shall provide the details of the monitoring equipment used and the applicable calibration details of the monitoring equipment used for the measurement in the test. 2. PP shall provide the QA/QC procedures employed for the KPTs including the training records and qualifications of the personnel performing the KPTs.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or	1. Details of the monitoring equipment used was added to parameter table $B_{new,KPT,i,j}$. "For the current monitoring period, Brentwood Spring-Dial Hoist Scales with either 50 kg or 100 kg maximum weight limit and an accuracy		

further information for clarification as per finding)	of 0.1 kg was used. Ryobi MM-100 and MM-210 moisture meters, operating with a rated current of <25 mA and 50 mA, respectively, and probe measuring range and accuracy rated at 5-50% $\pm 2\%$ for wood were used.” This equipment was purchased new for the monitoring exercises and so no calibration was required. 2. Text was added to parameter table $B_{new,KPT,i,j}$ in row QA/QC procedures to be applied, stating: “The dedicated monitoring team appointed by each IP will conduct the KPTs, under supervision of the IP Instance Manager and the TASC Carbon Project Manager. The team is given training in best practice before each measurement campaign. Tests are conducted over a 4-day period at approximately the same time each day to capture accurate wood use in each 24h period.” Training records of the personnel and training materials are provided with this document.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has provided the details of the monitoring equipment used for the KPTs in the section 4.2 of the MR. Furthermore, the equipment has been purchased new and thus no calibration is required. PP has provided the purchase receipts. CAR04.1 is closed. 2. PP has provided the QA/QC measures used for the KPTs. Furthermore, to standardize the tests, they were carried out at same time each day over 4-day period. The KPT personnel were interviewed by the VVB and the KPTs were cross-checked with the sample households. CAR04.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 01		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	1. On the cover page of the MR, the date of Issue of the MR has been provided as 23-January-2023 even though the end date of the monitoring period is 31-January-2023. 2. The start date of the monitoring period 2, has been indicated as 09-February-2022, which		

	coincides with the last date of monitoring period 1. PP shall ensure that the double counting of emission reductions does not take place.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. The date of issue on the Cover page of the MR was updated to 01-March-2023. 2. The start date of monitoring period 2 was updated to 10-February-2022 throughout the monitoring report and the ER calculations workbook.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has revised the date of issue on the cover page of the MR. CL01.1 is closed. 2. PP has revised the start date of the monitoring period to 10-February-2022. CL01.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 02
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (VVB)	1. In the section 1.11 of the MR, the SDG Target 3.9 and indicator is not in accordance with the UN SDG metadata. 2. In the section 1.11 of the MR, PP shall justify how the SDG Indicator identified is consistent with the objectives of the SDG 7 and SDG 12 respectively.
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. The Target and Indicator was self-defined to describe the impact of ICS on health due to reduced indoor and ambient air pollution from combustion emissions. 2. The Targets and Indicators were updated to be more consistent with the objectives of SDG 7 and SDG 12.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has clarified that the target and indicators are self-defined in accordance with the instruction text for the Monitoring Report template. CL02.1 is closed. 2. PP has revised the indicator for SDG 7 and SDG12 in the section 1.11 of the MR. CL02.2 is closed.

Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed
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Finding	CL 03						
Classification	☐ CAR ☒ CL ☐ FAR						
Description of finding (VVB)	In the section 2.2 of the MR, the summary of the comments received during the ongoing communications is provided. However, the response for the comments provided by the PP is not stated in the section 2.2 of the MR.						
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	Added text to section 2.2 of the MR to state: <table border="1"> <thead> <tr> <th>Feedback received</th><th>Response</th></tr> </thead> <tbody> <tr> <td>Some community members have asked for a bigger stove or a stove with two plates.</td><td>Households tend to use bigger pots for family and/or social gatherings. It is explained to stakeholders that the stove is intended to aid the daily cooking habits and not to replace cooking at large gatherings. The project proponent is constantly on the lookout for the best ICS technology available, including options for 2 plate stoves.</td></tr> <tr> <td>Some community members did not receive stoves</td><td>The community members who did not receive stoves are requested to provide their details to the relevant Traditional Authority, who are requested to send the information on to the Implementing Partners, to arrange a day to distribute to these households.</td></tr> </tbody> </table>	Feedback received	Response	Some community members have asked for a bigger stove or a stove with two plates.	Households tend to use bigger pots for family and/or social gatherings. It is explained to stakeholders that the stove is intended to aid the daily cooking habits and not to replace cooking at large gatherings. The project proponent is constantly on the lookout for the best ICS technology available, including options for 2 plate stoves.	Some community members did not receive stoves	The community members who did not receive stoves are requested to provide their details to the relevant Traditional Authority, who are requested to send the information on to the Implementing Partners, to arrange a day to distribute to these households.
Feedback received	Response						
Some community members have asked for a bigger stove or a stove with two plates.	Households tend to use bigger pots for family and/or social gatherings. It is explained to stakeholders that the stove is intended to aid the daily cooking habits and not to replace cooking at large gatherings. The project proponent is constantly on the lookout for the best ICS technology available, including options for 2 plate stoves.						
Some community members did not receive stoves	The community members who did not receive stoves are requested to provide their details to the relevant Traditional Authority, who are requested to send the information on to the Implementing Partners, to arrange a day to distribute to these households.						
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has added the responses to the Local Stakeholder feedback received during the monitoring period in the section 2.2 of the MR. CL03 is closed.						
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed						

Finding	CL 04
Classification	☐ CAR ☒ CL ☐ FAR
Description of finding (VVB)	In the section 3.1 of the MR, the important dates during the monitoring period are not provided, such as dates of habit survey and KPT surveys.
Corrective Action or clarification #1	Text was added to section 3.1 of the MR, stating: "The monitoring period covered within this report is

(PP shall write a detailed and clear corrective action or further information for clarification as per finding)	10/02/2022 to 31/01/2023.” And key dates are provided in a table in the same section.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	PP has provided the important dates during monitoring period in the section 3.1 of the MR. CL04 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 05		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	1. In the section 2.1.2 of the MR, the project description deviation has been presented in context of the version 11.1 of the methodology, AMS-II.G. PP shall clarify why the latest version of the methodology has not been referred for the deviation. 2. PP shall clarify the applicable clause for the project description applied in accordance with the §3.20.2 of the VCS Standard, version 4.4. 3. PP has used the equations 1 and 2 from the methodology VMR0006, v1.1 for the calculation of the emission reductions which does not take into account continued usage of the baseline stoves. PP is not taking into account continued usage of baseline stove as required for the parameter μy from equation 6 of the methodology VMR0006, v1.1 or equation 2 of the methodology AMS-II.G, version 13.0. PP shall adopt either of the approaches to take into account such stoves. Furthermore, PP shall also justify the approach for more than 1 project stoves used in the same household.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. In section 1 of VMR0006 v1.1, it is stated that the methodology uses AMS.II.G v11.1 as source. However, VMR0006 v1.1 also states in section 1: “<i>This methodology revision applies to CDM small-scale methodology AMS.II.G, ‘Energy efficiency measurements in thermal applications of non-renewable biomass’.</i> <u>Project proponents must apply this</u>		

	<u>methodology revision in conjunction with the latest version of AMS.II.G.”</u> Therefore, the MR was updated to reflect the latest version of AMS.II.G, i.e. v13.0. - The applicable clause of the VCS Standard v4.4 was added to the MR in section 3.2.2, stating “The deviation is applied in alignment with section 3.20.2.2 of the VCS Standard v4.4.” - The primary objective of KPTs is to accurately measure combined household wood usage, on all wood-burning appliances, and therefore the project KPTs automatically take into account any and all continued baseline stove usage. Therefore, deviation description in Section 3.2 clearly states that parameter μ_y is not applied. VMR0006 v1.1 Equation 6 and AMS.II.G v13.0 Equation 2 are not applicable when AMS.II.G. v13.0 calculation option 2 taken. ERs are calculated with VMR0006 v1.1 Equation 2, which does not include parameter μ_y because $B_{y,savings,i,j}$ are calculated directly from the KPT results. According to AMS.II.G v13.0 Parameter Table 12: “Project participants may choose to directly monitor the biomass consumption annually in the project device instead of determining μ_y by measurement campaign”, and “When applying equations 7 and 9, it is a fraction based on monitoring results. In other cases (i.e. applying equations 4, 6 and 8), use 1.0” Only 1 stove is distributed per household and the unique stove entries in the monitoring database reflect this. If, for some reason, a person has received 2 stoves, a duplicate ID number is automatically flagged on the project data management system. The monitoring team is tasked to investigate these households. Should 2 devices be found at one household, one stove is retrieved and redistributed to another household. A data audit trail is maintained for every stove.
VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action	- PP has revised the version of the methodology AMS-II.G, to version 13. CL05.1 is closed. - PP has clarified that the deviation has been applied in accordance with the §3.20.2.2 of the VCS Standard v4.4. CL05.2 is closed.

and VVB assessments (#2, #3, etc.) shall be added.	3. PP has clarified how the due account of the baseline stove usage is taken into consideration during the KPTs based on the equations and calculation procedure of the methodology AMS-II.G, version 13.0. Furthermore, PP has also confirmed that only 1 project stove is distributed in each household. CL05.3 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 06		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	1. In the section 4.2 of the MR, for the parameter η_{old} , a default value of 0.1 has been used across the grouped project activity. However, it was observed during the VVB site visit that one of the households (Stove serial number 337830 – Nathiana Makolobe) in PI2-WB was not using a 3- stone fire as a baseline device. 2. During the VVB site visit surveys, it was observed that the user Vutomi Zulu did not have the stove (Stove serial number 274921). PP shall check the dates of dropout of the stove from the project activity.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. The default baseline efficiency parameter (η_{old}) is not applied in the ER calculations using AMS.II.G v13.0 calculation option 2. This has been added in the comments of the η_{old} parameter in Section 4.2 and to Section 3.2.2 of the MR: η_{old} is not applicable. The baseline stove efficiency parameter (η_{old}) is only used in AMS.II.G. v13.0 Options 1 and 4 to calculate $B_{y,savings,i,j}$. Option 2 is a measurement based approach, using KPT data to determine $B_{y,savings,i,j}$. The baseline KPT surveys determined the average combined household wood usage, regardless of how many different types of baseline devices were used in the sampled household.		

	The baseline habit surveys indicated that some households use a combination of baseline stoves. Open fires are deemed the primary baseline devices in the project area. Traditionally, open fires are the preferred cooking method in the baseline, even though secondary devices may be available. Electricity and gas supply is also irregular and/or unaffordable. Response on 22/05/2023: Section 4.3.5 was updated to elaborate on this finding. During the site visit, the VVB interviewed one ICS end user who claimed they had not used wood fuel in the baseline scenario. This contradicted the information provided by the same end user at the distribution stage, where the distribution team identified that the household was using wood fuel and the end user confirmed this in the distribution survey. The end user had moved house in the intervening time, which may have led to some confusion around the questioning. Nonetheless, for conservativeness the PP will remove the end user from the tally of stoves that are considered 'in use' for the monitoring period. This will reflect as a 1% representative decrease (1 out of 100 users surveyed) in the reported number of stove usage days across the entire population to account for this discrepancy. The 1% discount was applied across both PIs by applying the deduction to the stove days in cells G31-G32 and H31-H32 in the sheet "ER Calculations". 2. The Zulu household visit occurred without an appointment at the <i>ad hoc</i> request of the VVB. Subsequently, the monitoring team re-visited the household, which reported that they have the stove in their possession. Photographic evidence is provided as an addendum. After this site visit, the monitoring team training content is being updated to emphasize at community sensitization meetings the importance of taking care of and maintaining possession of the specific stove that each beneficiary signs for at the point of distribution.
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VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has applied the option provided in the § 38(b) of the Standard: Sampling and surveys for CDM project activities and programmes of activities, version 09.0/B05-1/ and revised estimation of emission reduction to err on the conservative side for the ICS end user that did not have three-stone stove as their baseline stove scenario. CL06.1 is closed. 2. PP has provided the photographic evidence of the household with the possession of the stove. The household was interviewed telephonically for the KPT surveys. PP has also confirmed that a community sensitization program shall be conducted to ensure that the beneficiaries are in possession of your correct stove. FAR01 is raised. CL06.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CL 07		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	1. In the section 5.4 of the MR, the emission reductions have been provided for the vintage 2021 and not provided for 2023. PP shall adhere to the monitoring period applicable for the project activity while reporting on the emission reductions for different vintages. 2. In the section 5.4 of the MR, PP shall also provide a comparison of the emission reductions achieved during the monitoring period with the ex-ante estimates for the grouped project activity for the applicable period.		
Corrective Action or clarification #1 (PP shall write a detailed and clear corrective action or further information for clarification as per finding)	1. The table in Section 5.4 was updated to reflect the correct vintages (2022 & 2023) of the ERs for the monitoring period. 2. A table was added in Section 5.4 to compare the ex-ante estimated ERs and actual project ERs for monitoring period 2. An ex-ante ER calculation for MP2 is added as a separate tab in the ER sheet. This takes the expected ERs from the baseline on a per stove per day basis (as submitted at project registration) and multiplied by the actual stove operating days in MP2.		

VVB Assessment #1 The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.	1. PP has updated the details in the section 5.4 of the MR with the ERs presented for the 2022 and 2023 vintages. CL07.1 is closed. 2. PP has provided the ex-ante calculations for the monitoring period in the ER sheet. CL07.2 is closed.
Conclusion Tick the appropriate checkbox	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

TABLE 2: FORWARD ACTION REQUESTS

Finding	FAR 01
Classification	☐ CAR ☐ CL ☒ FAR
Description of finding (VVB)	PP shall ensure that the households are in possession of the project stoves and do not take the stove with them while they are traveling. PP shall provide evidence of the sensitization program for the households to ensure that the beneficiaries are in possession of project stove and do not transfer stove from one place to another. FAR01 is closed.
Corrective Action or clarification #1 (P.P shall write a detailed and clear corrective action or further information for clarification as per finding)	
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.	
Conclusion Tick the appropriate checkbox	☒ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☐ The finding is closed