



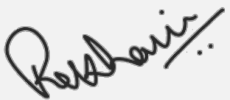
**Verified Carbon
Standard**

VERIFICATION REPORT

GROUPED PROJECTS FOR LAOS IMPROVED COOKSTOVE



Report ID	EPL-VCS-2023-0088
Project title	Grouped Projects for Laos Improved Cookstove
Project ID	2924
Verification period	10-March-2023 to 30-September-2023
Original date of issue	20-November-2023
Most recent date of issue	14-March-2023
Version	03
VCS Standard Version	04.5

Client	Sustainability Investment Promotion and Development Joint Stock Company (SIPCO)
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Summary:

Brief description of the verification and the project:

Verification: Sustainability Investment Promotion and Development Joint Stock Company (SIPCO) has appointed EcoLance Private Limited (hereafter referred as EPL), to carry out the first verification of the VCS project “Grouped Projects for Laos Improved Cookstove” in Laos, VCS ID: 2924 which falls under the sectoral scope 03. The verification is based on the desk review of the Monitoring report /01/, registered VCS PD /24/ and the corresponding validation report /24/, supporting emission reduction calculation spread sheets /02/ and other relevant supporting documents made available to the verification team by the project proponent accompanied by onsite audit and also onsite interviews. This verification involves the period from 10-March-2023 to 30-September-2023 (including both the days).

Project: The project “Grouped Projects for Laos Improved Cookstove” is a grouped project which employs VCS methodology VMR0006 “Methodology for installation of High efficiency firewood cookstoves”, version 1.1 /B02/. The grouped project activity (“hereafter “proposed project activity”) involves distribution/installation of energy efficient Improved Cooking Stove (ICS) in the households (hereafter referred as “users”) of Laos. The proposed project activity aims at reducing the wood fuel consumption of traditional stove users by distributing/installation of energy efficient Improved Cooking Stove (ICS) to households. The geographical boundaries of the project activity “Grouped Projects for Laos Improved Cookstove” covers the whole country of Laos.

So, the grouped project activity reduces the use and demand for non-renewable biomass that would have been used to cooking food in the absence of this project activity. This directly leads to reduced greenhouse gas emissions. The project start date is 10-March-2023 which is the distribution, installation & operational date of the first ICS in the grouped project.

The purpose and scope of verification:

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

The grouped project activity reduces the use and demand for non-renewable biomass that would have been used for cooking in the absence of this project activity. This directly leads to reduced greenhouse gas emissions.

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered VCS PD
- To verify the implemented monitoring plan with the registered VCS PD and applied baseline and monitoring methodology.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.

- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

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

The method and criteria used for verification.

(a) Desk review, involving:

- (i) Review of the data and information presented to verify their completeness;
- (ii) Review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- (iii) Evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

(b) Onsite assessment involving:

- (i) Assessment of the implementation and operation of the proposed VCS grouped project activity as per the registered VCS PD;
- (ii) Review of information flows for generating, aggregating and reporting the monitoring parameters;
- (iii) Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the registered VCS PD;
- (iv) A cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources;
- (v) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the registered VCS PD and the selected methodology;
- (vi) Review of calculations and assumptions made in determining the GHG data and emission reductions;
- (vii) Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

The number of findings raised during verification:

A risk-based approach has been followed to perform this verification. During the course of verification, a total of 08 findings were raised, which includes:

07 Corrective Action Requests (CARs); 01 Clarification Request (CL).

All the raised findings were successfully resolved by the PP.

Any uncertainties associated with the verification:

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

Summary of the verification conclusion:

In the opinion of EPL, the emission reductions reported for the “Grouped Projects for Laos Improved Cookstove” VCS 2924 in the monitoring report are fairly and correctly stated. EPL is therefore able to certify that the emission reductions from the “Grouped Projects for Laos Improved Cookstove” during the period from 10-March-2023 to 30-September-2023, is amount 204,118 tCO₂ equivalent.

Request for issuance of VCU shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration. The verification of reported emission reductions is based on the information made available to EPL and the engagement conditions detailed in this report.

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1 INTRODUCTION

1.1 Objective

Sustainability Investment Promotion and Development Joint Stock Company has appointed the VVB, EcoLance Private Limited (EPL) to perform a verification of the VCS Grouped Project “Grouped Projects for Laos Improved Cookstove”. This report summarizes the findings of verification of the project, performed on the basis of the VCS Program Guide (v4.4, updated 29 August 2023) /B01-b/, VCS Standard (v4.5, updated 29 August 2023) /B01-a/, Program Definitions (v4.4, updated 29 August 2023) /B01-e/, Registration & Issuance Process (v4.4, updated 31 August 2023) /B01-d/, VCS Validation and Verification Manual (v 3.2, dated 19 October 2016) /B01-c/. Verification is required for all VCS project activities intending to register a grouped project under the VCS program. This report contains the findings and resolutions from the verification of the grouped project. The purpose of a verification is to have a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements, in particular, the project's baseline, monitoring plan and the project's compliance with relevant VCS and host Party criteria. These are verified in order to confirm that the monitoring report, as documented, is sound and reasonable and meets the identified criteria. Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions, VCU's. The monitoring system is implemented and fully functional to generate emission reductions without any double counting, and the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reductions calculation.

1.2 Scope and Criteria

The verification of this project is based on the registered VCS Project Description /24/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spreadsheet /02/, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore, publicly available information was considered as far as available and required.

EPL 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 Program Guide version 4.4, updated 29 August 2023
- VCS Standard version 4.5, updated 29 August 2023
- Program Definitions version 4.4, updated 29 August 2023
- Registration & Issuance Process version 4.4 updated 31 August 2023

- VCS validation and verification manual version 3.2, dated 19 October 2016
- VCS Methodology: VMR0006 Methodology for installation of High efficiency firewood cookstoves, version 1.1 /B02/
- Other relevant rules, including the host country legislation.

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

- To verify that the project is implemented as described in the 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 /24/.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions VCUs without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent, and free of material error or omission by checking the monitoring records and the emissions reduction calculation /02/.
- To evaluate the GHG emissions reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement.
- To verify that reported GHG emissions data is sufficiently supported by evidence.
- The verification shall ensure that the reported emission reductions are complete and accurate to be certified.

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

- 1) Completeness check and desk review
- 2) On Site Visit
- 3) Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.

EPL 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

The verification report is based on the Monitoring report /01/, registered VCS PD and corresponding validation report /24/, supporting documents /03/-/28/ made available to the verifier and information collected through performing interviews.

The verification has been planned and organised to achieve a:

- ☒ Reasonable level of assurance

☐ Limited level of assurance

1.4 Summary Description of the Project

The project “Grouped Projects for Laos Improved Cookstove” is a grouped project which employs of the VCS methodology; VMR0006 “Methodology for installation of High efficiency firewood cookstoves”, version 1.1 /B02/. The grouped project involves distribution of fuel-efficient improved cook stoves (ICS) in Laos. The proposed project activity aims at reducing the wood fuel consumption of traditional stove users by distributing/installation of energy efficient Improved Cooking Stove (ICS) to households. The geographical boundary is the whole country of Laos. The KML file /28/ has been provided to the VVB, this has been verified and confirmed during the onsite visit. All ICSs are distributed free of cost to users as per registered VCS PD /23/.

ICSs are distributed free of cost to users as per registered VCS PD /24/ and also verified during onsite interviews and review of the beneficiary agreement /16/.

The grouped project activity reduces the use and demand for non-renewable biomass that would have been used to cook food in the absence of this project activity. This directly leads to reduced greenhouse gas emissions.

As per the registered VCS PD /24/, the Project activity promotes the dissemination of improved cookstove model Ecozen, which are manufactured by Viet Charcoal Production Company Limited. The lifespan of the Ecozen cookstove model is 10 years.

As per the registered VCS PD /24/, and interviews with the representative of project proponent, each ICS under project is uniquely identifiable /10/ and would be assured that it is not part of any other VCS project. Each project activity instance is uniquely identifiable /10/ by unique system to avoid the double counting. The unique numbering system to be used in this grouped project is “LAO – XXX – ICS – YYYYY” (where, LAO = Lao People's Democratic Republic / XXX = Project Instance number starting from 001 / ICS = Grouped project for Improved cookstove / YYYYY = continuous number of User starting from 00001).

The measures to avoid double counting is deemed acceptable to the verification team. Project proponent has also submitted declaration /20//21/ to confirm the following:

- That the project is not creating any other form of environmental credit under any specific program.
- That the project has not or shall not claim carbon credits on any other scheme after Registration of the project under VCS.

The project proponent for the project activity is Sustainability Investment Promotion and Development Joint Stock Company, owns the rights to VCU under VCS /05/.

The scale of the “Grouped Projects for Laos Improved Cookstove” is under “large project” category and the total estimated volume of GHG emission reductions for the proposed project activity is 3,588,237 tCO₂e/year as per the registered VCS PD /24/ and its corresponding validation report /24/.

A total of 136,381 ICSs was distributed under 14 project instances in the grouped project until the end of this first monitoring period. The net emission reductions or removals for 14 project instances is 204,118 tCO₂e for this first monitoring period (10-March-2023 to 30-September-2023).

The crediting period for the project activity is fixed type (10 years 00 months) is the life span of the ICS model Ecozen. The start date of the crediting period is 10-March-2023 /03/ and the end date is 09-March-2033.

2 VERIFICATION PROCESS

2.1 Method and Criteria

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 including calibration requirements, QA/QC procedures and other relevant documents.

2. Onsite interviews (including follow-up interviews with project stakeholders, when deemed necessary).

The onsite interviews include 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 the monitoring plan of the validated VCS PD,
- Cross check of information and data provided in the monitoring report with purchase records or similar data sources.
- Review of assumptions made in calculating the emission reductions (if any).
- Implementation of QA/QC procedure in-line with the VCS PD and methodology requirements.

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

Sustainability Investment Promotion and Development Joint Stock Company has appointed the VVB, EcoLance Private Limited to carry out the verification of the project “Grouped Projects for Laos Improved Cookstove”, with regards to the relevant requirements of VCS Standard Version 4.5 (updated 29 August 2023) /B01-a/.

The verification through the EPL includes a thorough and independent assessment of the proposed grouped project against the applicable VCS requirements, the project's used methodology VMR0006, version 1.1, sampling and survey standard v09.0, Implementation of project status, Data and Parameters monitored, monitoring plan and the project's compliance with relevant VCS and host party criteria. The verification involves assessment of the project and to confirm that the project meets the applicability conditions of the selected methodology, VMR0006 "Methodology for installation of High efficiency firewood cookstoves", version 1.1 /B02/ and assess the claims and compliance made in the MR /01/ without limitation on the information provided by the project participants.

The verification team of the EPL has applied a sampling approach, acceptance sampling for the onsite interviews as part of verification in accordance with the paragraph 26 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, (Version 09.0). In accordance with the paragraph 28 of the sampling standard /B03a/, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 and 39 of the sampling standards shall be followed.

Verification team has opted for AQL of 0.5 % and UQL of 20 %; producer risk of 10 % and consumer risk of 10 % in determining the VVB's sample size. Accordingly, the sample size to be interviewed for the above-mentioned parameters are 11, with acceptance number (c) as 0. The overall verification was conducted using EPL's internal procedures.

2.2 Document Review

During the document review, EPL has applied standard auditing techniques including but not limited to document reviews and onsite interviews, review of the applicable/applied methodology and its underlying formulae and calculations to assess the quality of information provided.

This report contains the findings and resolutions from the verification and a verification opinion on the proposed grouped project (new inclusion) thus confirming the project design as document is sound and reasonable and meets the stated requirements and identified criteria.

The VCS monitoring report /01/, emission reduction calculation spread sheet "VCS_ER_ID2924_10MAR2023_30SEP2023_Round 1" /02/, sampling size calculation, survey summary, $N_{y,i,j}$ (Number of commissioned project devices of type i and batch j operating during year y), $B_{y=1,new,i,survey}$ (Quantity of woody biomass used by project devices in tonnes per device of type i and batch j), and supporting documents related to the project monitoring report for this verification and net emission reduction/removal were reviewed as per VCS standard version 4.5 /B01-a/ requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS Standard version 4.5 requirements.
- A review of the Monitoring report /01/, data monitored and monitoring methodology, paying particular attention to the applicability conditions of the methodology, sampling plan and size, survey summary and net emission reduction for the considered monitoring period by the

distribution of ICS in Laos.

- A review of the monitoring plan and the project's compliance with relevant VCS criteria.
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report /01/ was initially reviewed, and EPL requested the PP to present the supporting information and documents /03/-/28/. The documents were reviewed by EPL. Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by the verification team.

The list of documents referred during the course of this verification has been provided in Appendix 03.

2.3 Interviews

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

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Ngo	Thị Viet Anh	SIPCO (PP)	06-08 November 2023	Project implementation and operation, monitoring procedure, data and information flow, Roles and responsibility, Quality Assurance – Management and operating system, Distribution records, Survey records, Training Qualification and Training, ER calculation and completeness of monitoring report, compliance of monitoring plan with monitoring methodology and latest VCS PD.	Nguyen H.N. Trang Nguyen & Souphavady Saysana
2.	Khampheng	Phewvilay	SIPCO (PP)	06-08 November 2023		
3.	Pham	Ngoc Nhan	SIPCO (PP)	06-08 November 2023		

4.	Khamphong	Vongkham souk	End-user	06-08 November 2023	Cross-check of a sample of project participants' samples (Questionnaire, operation surveys/interviews) for quantity of woody biomass consumption during baseline survey, that would have been used in the household in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project devices). The value of the woody consumption has been cross checked by the acceptance sampling of the survey done by the PP. Discussion with the end users on the additionality part specifically end users were questioned about the cost of project stove paid by them (if any).	Nguyen H.N. Trang Nguyen & Souphavady Saysana
5.	-	Touxong	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
6.	Aeng	Phoumixay	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
7.	Choi	Viengsomla ck	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
8.	Samat	Anoudet	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
9.	Mauso	Saiya San	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
10.	Neng	Vang	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
11.	Saengthong	Lo Mani	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
12.	Buali	Phommachak	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
13.	Oudone	Xommade	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana

14.	-	Sakhou	End-user	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
15.	Vanpheng	Saisongkh am	Bolikhamx ay Provincial Red Cross	06-08 November 2023	Project Design, Monitoring Plan, Local Stakeholder Consultation and Baseline Scenario	Nguyen H.N. Trang Nguyen & Souphavady Saysana
16.	Bouapha	Sulivanh	Bolikhamx ay Provincial Red Cross	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
17.	Phanh	Thong	National Red Cross	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
18.	Laoyeng	Aun	Khammou ane Province Red Cross	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana
19.	Souk	Saman	Red cross of Hin Bou - District of Khammou ane Province	06-08 November 2023		Nguyen H.N. Trang Nguyen & Souphavady Saysana

2.4 Site Visits

A site visit to the project activity was undertaken by team leader from 06 to 08-November-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 site visit addressed:

- An assessment of the project implementation and operation as per the registered VCS PD /24/ (including physical inspection to confirm physical existence and operation of project components).

- Review of information flows for generating, aggregating, and reporting the monitoring parameters/data.
- 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/.

In line with paragraph 26 of the Sampling Standard, the verification team has applied acceptance sampling approach through on-site interviews on the sampling survey as part of verification. The project participant had applied sampling approach. A representative Monitoring survey /06/ /07/ was conducted by the representatives of Project participant. The verification team has chosen acceptance sampling in accordance with paragraph 28 of the sampling standard /B03a/.

Applying steps listed in paragraph 29 - 38 of the sampling standard, version 09 /B03a/, a sample size of 11 households was chosen with acceptance number (c) as 0. A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%, producer risk 10% and consumer risk 10%. Acceptance number thus determined for the sample is 0.

The information provided in the sampling survey data /06//07/, has been cross checked during the onsite interviews conducted. As a part of acceptance sampling, the verification team could confirm the User habit survey data with no discrepant records. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B03a/.

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

2.5 Resolution of Findings

This section summarizes the findings from the verification of the project activity. In this section the findings from the document review, assessments and onsite interviews are provided.

Material discrepancies identified in the course of the 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 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.

The verification team identified 07 CARs and 01 CL. All CARs and CLs raised by EPL during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the VCS Registry.

2.5.1 Forward Action Requests

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

No Forward action request has been raised during validation which are applicable for the current monitoring period.

2.6 Eligibility for Validation Activities

Validation/Verification body (VVB), EcoLance Private Limited holds accreditation for verification for the relevant sectoral scope 03 and is eligible for validation/verification for the project activity.

Please refer to the link below.

<https://verra.org/validation-verification/ecolance-private-limited/>

3 VALIDATION FINDINGS

3.1 Methodology Deviations

N/A

The VCS methodology VMR0006 “Methodology for installation of High efficiency firewood cookstoves”, version 1.1 /B02/ and its related tools are applied as they are without any deviation from methodology. Hence, it is clear that there is no methodology deviation identified during the current monitoring period.

3.2 Project Description Deviations

N/A

There haven't been any change on project's design and characteristics comparing with the registered VCS PD. The project activity follows the scenario described at the Project Design Document and the validation report.

The verification team of EPL assess the methodology application, additionality and the baseline of project activity and find consistency, no deviation and remain in compliance with the VCS rules as per registered VCS PD /24/ and MR /01/.

3.3 New Project Activity Instances in Grouped Projects

The grouped project (the project) is the dissemination of energy efficient stoves for cooking purposes. A total of 136,381 ICS was distributed by the end of this monitoring period. As described in the registered

VCS PD /24/, for each new instance (distribution of ICS under project activity) the eligibility criteria below are confirming the new project activity instances in the assessment below:

The number of new project activity instances added to the project in this verification period is 13 i.e., PA002, PA003, PA004, PA005, PA006, PA007, PA008, PA009, PA010, PA011, PA012, PA013, PA014. The sampling process for all is as per sampling standard v09.0 /B03a/. The eligibility criteria of the Project activity instance were established at the group project validation in the registered VCS PD /24/.

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

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

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

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

Table 1: Eligibility criteria for new project activity instances

No.	Eligibility criterion – Category	How the new project activity instances to comply	VVB Assessment
1.	Meet the applicability conditions set out in the methodology applied to the project.	The new project activity instance will meet all applicability conditions of VMR0006: “Methodology for installation of high efficiency firewood cookstoves”, version 1.1, set out in section 3.2 of this project description.	Verification team reviewed the registered VCS PD /24/ and MR /01/ of the project and confirms that all the applicability criteria as mentioned in the section 3.2 of the final PD is met by the 13 new project activity instances and the same has been cross checked by interviewing the PP. Thus, the criteria have met for all the project activity instances added in this monitoring period. The details assessment on the compliance with methodology

			applicability conditions are as below:
		1.1.Project activities shall be implemented in domestic premises or in community-based kitchen	The verification team review the distribution database /09/ beneficiary agreement /16/, ICS free distribution agreement /15/, and interviews with end-users during onsite visit to confirm that ICSs only are distributed in the households only and thereby confirming the methodology applicability condition.
		1.2.The project stove shall have specified high power thermal efficiency of at least 25% per the manufacturer's specifications and shall exclusively use woody biomass and can be single pot or multi-pot;	The verification team reviewed the stove efficiency test performed by GERES Biomass and Energy Laboratory (G-BEL), dated 05/03/2022 on the Ecozen stove /04/ and also the manufacturer specification/04/ which confirms that the ICS distributed to the end users has 38.44% thermal efficiency. This is deemed appropriate to the verification team. Thus, the eligibility criterion has been met for the new project instances.
		1.3.Both 'Projects' and 'Large Projects' can use the methodology.	The verification team through reviewing ER spreadsheet /02/, distribution database /09/ and onsite interviews can confirm that the average annual GHG emission reduction for the grouped project is more than 300,000 tCO ₂ e and hence the project is large Project as per VCS.
		1.4.Non-renewable biomass has been used in the	The verification team reviewed the FOA Global Forest Resources

		project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.	Assessment 2015 Country Reports, which demonstrates the use of Non renewable biomass since 1990 in Laos. This is deemed appropriate to the verification team. Since all the new project instances are in Laos, the eligibility criteria have been met for the new project activity instances under this group project.
		1.5.For the specific case of biomass residues processed as a fuel (e.g. briquettes, wood chips), it shall be demonstrated that: (a) It is produced using exclusively renewable biomass (more than one type of biomass may be used). (b) The consumption of the fuel should be monitored during the crediting period and (c) Energy use for renewable biomass processing (e.g., shredding and compacting in the case of briquetting) may be considered as equivalent to the upstream emissions associated with the processing of the displaced fossil fuel and hence disregarded.	The verification team has conducted interview with different stakeholders, end-users during onsite visit and confirmed that this is not applicable. These new project activity instances use of biomass is sourced from non-renewable sources only.
		1.6.The PD shall explain the proposed method for distribution of project devices including the method to avoid double counting of emission	The verification team by means of Onsite audit interviews and desk review of the distribution database /09/, beneficiary agreement /16/, confirms that the proposed method for

		reductions such as unique identifications of product and end-user locations (e.g. programme logo).	distribution of project devices includes the method to avoid double counting of emission reductions such as unique identifications of product, end user details (name, address etc) has been applied for the new project instances. Therefore, the verification team confirms that the record-keeping system has eliminated double counting. The eligibility criterion has been met for the new project activity instances under this group project.
		1.7.The PD shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices	The verification team by means of onsite audit interviews and the review of beneficiary agreement /16/ and public announcement in their website¹ can confirm that the proposed procedures has been applied to new project instances and therefore prevent double counting of emission reductions. The eligibility criterion has been met for the new project activity instances under this group project.
2.	Use the technologies or measures specified in the project description	Each Instance under this Grouped project will consist of the distribution of ICS with a thermal efficiency of 38.44% to household users cooking with non-renewable biomass in the baseline scenario. The instance	On the basis of review of the MR /01/, ICS efficiency tests performed by third party /04.c/ & technical specification of the ICS /04/ distributed in the new project activities and by interview with the PP and end-users,

¹ <https://intracocarbon.com/public-announcement-on-grouped-projects-for-laos-cookstove-program-project-id-2924>

		consists of replacement of conventional firewood cookstoves for biomass fired ICS as defined in the Grouped project.	verification team confirms that the project device type used in the new project activity instances is Ecozen which is a biomass-fired Improved Cooking Stove (ICS) with a thermal efficiency of 38.44%. It replaced the conventional firewood cookstove in the baseline as justified and confirmed in Criterion 8. Thus, this criterion is met for all the new project activity instances added in this monitoring period.
3.	Apply the technologies or measures in the same manner as specified in the project description	Each instance under this grouped project shall consist of the distribution of ICSs with efficiency improvements in thermal applications of non-renewable biomass. ICS shall have a thermal efficiency of 38.44%.	On the basis of review of the MR /01/, ICS efficiency tests performed by third party /04/ & technical specification of the ICS /04/ distributed in the new project activity instances and by interview with the PP and end-users, verification team confirms that the project device type used in the new project activity instances is Ecozen which have thermal efficiency of 38.44%. Thus, this criterion is met for all the new project activity instances added in this monitoring period.
4.	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	Are Installed within the geographic area specified in Section 1.12, thus subject to the same baseline scenario determined in Section 3.3	The verification team reviewed the distribution database /09/ beneficiary agreement /16/, ICS free distribution agreement /15/, procurement document (e.g contract, delivery confirmation) /29/ and by further conducting interviews with representatives of PP to confirm that all new project activity instances are located within the geographical area

			identified in the registered VCS PD /24/ and it will replace the baseline cookstove in household. Thus, this criterion is met for all the new project activity instances added in this monitoring period.
5.	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	All new project activity instances will use the activity method for demonstration of additionality. Step 1: Regulatory Surplus There is no mandated government programme or policy 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 positive list as it satisfies criterion 1 where it meets all the applicability conditions of the methodology Step 3: Project method This step is not applicable under project activity because the stoves are provided at zero cost to the households (end user).	The Validation team through document review and onsite visit & interviews analyze that PP has demonstrated additionality as per the methodology VMR0006 version 1.1 section 7 which states that activity method to demonstrate the additionality. This has been mentioned in the registered VCS PD /24/. PP has demonstrated regulatory surplus in accordance with the rules and requirements regarding regulatory surplus set out in the latest version of the VCS Standard and it can be confirmed that the project is not mandated by any law, statute or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute or other regulatory framework. Furthermore, the project activity meets all the applicability conditions of the applied methodology VMR0006, version 1.1 and distributes stoves at zero cost to the end-users and has no other source of revenue other than the sale of GHG credits. Validation team on the basis of document review, onsite visit &

			interviews and review of signed declaration letter provided by the PP /20//21/ and the beneficiary agreement /16/, confirms that the project is to free distribution of ICSs to the Household, the PP has no other income from VER revenue. Hence the project qualifies under positive list and deemed additional. Thus, the eligibility criteria have been met for the new project activity instances under this group project.
6.	Conditions that avoid double counting of emission reductions.	The new project activity instances will: 1. Apply a unique system (i.e. conformity letter) for ICS in each project instance, assigning a unique ID to each ICS and allowing to clearly identify each ICS and to which project instance it belongs. 2. Each ICS installed will include project instance assignment and will have corresponding end user details (i.e. name, address). This data will be recorded as part of the beneficiary agreement and Project database. The CME has an agreement in place with residents who use ICS in the project instance in which the owner transfers the rights to the emissions reductions exclusively to the CME as part of the Carbon Rights Waiver within the Beneficiary agreement.	Each ICS in project activity instance is uniquely identifiable and not part of any other CDM registered project or CPA of other PoA. The ICS will carry unique IDs, printed in the label decal of the ICS, which comprised of the project instance number, ICS number and household subscribed to each ICS. The same has been crosschecked by the beneficiary agreement /16/ and document referring unique identification of each of the Stove provided by the PP /10/. Thus, the eligibility criteria have been met for the new project activity instances under this group project

7.	Capacity Limit	Where a capacity limit applies to a project activity included in the project, no project activity instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows: 1) Each project activity instance that exceeds one percent of the capacity limit shall be identified. 2) 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. 3) None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit	On the basis of review of registered VCS PD /24/ and MR /01/ of the project, the VVB can confirmed that this proposed project applied VCS methodology VMR0006, version 1.1. This is a methodology with no scale and no capacity limit. On the basis of review of section 3.6.9 of VCS standard v4.5, VCS Program Definitions, v4.4 and applied methodology, it has confirmed that no capacity limit for the given project is applicable.
8.	Target group	Each project instance will target end users which includes households who use traditional cookstove to cook meal.	Under the new project activity instances, the ICS are distributed to the households who use traditional cookstove to cook meal and this was crosschecked by interview with the PP and review of the beneficiary agreement /16/.

			Thus, the eligibility criteria have been met for the new project activity instances under this group project
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Based on the above assessment the verification team confirms that the inclusion of the project activity instances in the grouped project is valid.

Overall, the verification team of EPL assesses the quality and completeness of evidence, data and documents of project description of project activity and finds all information in uniform manner.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:				
	Audit type	Period	Program	Validation/verification body name	Number of years
Audit history	Validation	10-March-2023 to 09-March-2033 (the crediting period of grouped project)	VCS	Carbon Check (India) Private Ltd.	N/A
	Verification	10-March-2023 to 30-September-2023	VCS	EcoLance Private Limited	0.56

	On the basis of reviewing the registered VCS Project Description /24/, the MR of this verification period /01/, VERRA registry, and supporting documents made available to the verifier and information collected through performing interviews during the on-site assessment to confirm the audit history and project's compliance to the requirement of Rotation of validation/verification bodies as per 4.1.27 of VCS Standard, version 4.5.
Double counting and participation under other GHG programs	On the basis of reviewing the registered VCS PD /24/ & corresponding validation report /24/, MR /01/, distribution database /09/ & beneficiary agreement /16/ and interviews with the representative of project proponent, each ICS under project is uniquely identifiable /10/ and would be assured that it is not part of any other VCS project. Each project activity instance is uniquely identifiable /10/ by unique system to avoid the double counting. The measures to avoid double counting are deemed acceptable to the verification team. Through interviews with PP during onsite assessment, the verification team can confirm that all the project instances have not participated or been rejected under any other GHG Programs and emission allowance trading program including renewable energy certificates (RECs) since validation. All the project instances have applied only under VCS for registration and the same has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc.
No double claiming with emissions trading programs or binding emission limits	All the project instances have applied only under VCS for registration. It has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc. So, there would be no double claiming with other emissions trading programs. The Project proponent has also submitted declaration /21/ to confirm that all the project instances have not or shall not claim carbon credits on any other scheme after Registration of the project under VCS. In addition, the verification team also reviewed the local regulation and confirmed that there is no system that creates binding limits on the total GHG emissions or emissions per unit of output or activity from a site, company, sector, or region of this project activity but does not include emissions trading.

No double claiming with other forms of environmental credit	All the project instances have applied only under VCS for registration. It has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc. So, there would be no double claiming with other forms of environmental credit. The Project proponent has also submitted declaration /20/ to confirm that all the project instances have not or shall not double claiming with any other form of environmental credit under any specific program.
Supply chain (scope 3) emissions double claiming	The project is in supply chain involved Viet Charcoal as the producer & SIPCO as the sponsor and distributor & household as the end-users. Thus: • The SIPCO (as the distributor) has an agreement in place with end-users who use ICSs in the project instances in which the owner transfers the rights to the emissions reductions exclusively to the SIPCO as part of the Carbon Rights Waiver within the Beneficiary agreement /16/. The verification team during onsite assessment also interview with different end-users and confirmed that they have agreed to transfer all the carbon rights to SIPCO. • As the sponsor and distributor of ICSs for end-users, SIPCO also official informed Viet Charcoal via email that VCU can be issued for the ICSs usage associated with Ecozen manufactured by Viet Charcoal, distributed by SIPCO under this project which have SIPCO as a sole project participant. This statement also was publicly announce on their website (https://intracocarbon.com/public-announcement-on-grouped-projects-for-laos-cookstove-program-project-id-2924). In conclusion, the PP has implemented all possible measure to avoid potential risk of Scope 3 emissions double claiming. Therefore, the verification team accept it.
Sustainable development contributions	The project activity has distributed 136,381 ICS to households in this monitoring period to replace traditional stoves. This activity helps reduce the total fuel wood usage in the project area and therefore save woody biomass and generated 204,118 tCO₂ of emission reduction as verified during onsite interview with stakeholders, distribution database /09/, MR /01/ & ER calculation sheet /02/.

	During the onsite interview with different stakeholders & end-users, the verification team also conducted interview to confirm with end-users if project activity has contributed to the income increases through money and time saving. All the female in the household said that the ICS helps them reduce cooking time and therefore, more time to engage in other employment opportunities. The replacement of traditional cookstove with the ICS also leads to the reduction of smoke, dust which creates indoor air pollution. The project also generated employment opportunities for assembling of ICSs, distribution of ICSs and post-sale operation & maintenance of ICSs. This is confirmed by the on-site interview with different stakeholders and registered VCS PD /24/, MR /01/ & ER calculation sheet /02/. On the basis of that, the verification team can confirm that the project has implemented the activities that result in the SD contributions described in the MR /01/.
Additional information relevant to the project	On the basis of reviewing registered VCS PD & validation report /24/, MR /01/, the verification team can confirm no sensitive information has been excluded from the public versions of project documents.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	On the basis of reviewing registered VCS PD /24/ and MR /01/, the verification team found that the stakeholder identification process is in place to distinguish which parties/ entities/ individuals are classified as stakeholders in this project activity. All the stakeholders who can influence or directly/ indirectly affected by the implementation of this project activity have been correctly identified. The verification team has cross-checked with the local stakeholder participant list, consultation meeting records /13/ and finds all the identified stakeholders has been involved by the project activity in the consultation process and therefore accepts this.
Legal or customary tenure/access rights	N/A.

	The project activity only involves distribution of ICSs to households free of charge /15/ and the households can decide to receive them or not as per beneficiary agreement /16/. It will not involve any legal or customary tenure/access rights to territories and resources. This has been verified during onsite interview with different stakeholder.
Stakeholder diversity and changes over time	On the basis of reviewing registered VCD PD & validation report/24/, MR /01/, local stakeholder consultation supportive document /13/ and ongoing communication report /22/, onsite observation and interview with different stakeholders, the verification team found insignificant change in stakeholder diversity. There is no change in entities involved in this project activity includes Laos' Red Cross, local government authority, local manufacturers, local vendor, etc. Their structure, functionality and activity are still the same. There might be changes in the personnel, but it doesn't impact their opinion & comments for the project activity on behalf of their organization as confirmed onsite. For the end-user, during onsite visits, the verification team has observed that it is still the same group. They confirmed that there was a slight improvement in terms of income & livelihood and well-being, but this did not bring any significant change in their social status and their opinions.
Expected changes in well-being	The project activity is contributing to the reduction in GHG emission due to reduction in use of non-renewable biomass as verified by onsite observation, reviewing of supportive documents include registered VCS PD /24/, MR /01/, ER calculation sheet /02/. The health of local end-users is improved due to less indoor air pollution, less time needed for cooking & collecting wood. The end-users have confirmed during the onsite interview that the project activity allowed them to have more time to work and earn additional income. Overall, the verification team found the project activity has contributed to the increase of local well-being.
Location of stakeholders	All the stakeholders (e.g., Lao Red Cross, local government authority, NGO, end-users, etc) are operating and living in the area of project activity which is in the geographical boundary of Laos country. This was verified and confirmed during onsite observation and interview with different stakeholder.

Location of resources	The location of resources (woody biomass, ICS, etc.) is also in the area of project activity which is in the geographical boundary of Laos country. This was verified and confirmed during onsite observation and interview with different stakeholder.
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4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	On the basis of reviewing the registered VCD PD & validation report /24/, MR /01/, local stakeholder consultation supportive document /13/, ongoing communication report /22/, and interviews with the PP and stakeholders during the audit, it confirms that the project has a stepwise mechanism for the ongoing communication. SIPCO engages with stakeholders (Lao Red Cross) through annual reports, inspection visit, group discussion & also SIPCO's social media communication. The details of ongoing communication activity are mentioned in the MR /01/ & annually ongoing communication reports /22/. The verification team reviewed and verified those during onsite interview and cross-checked with registered VCS PD /24/ & MR /01/ and confirms the procedure and method for engagement.
Date(s) of stakeholder consultation	15-Oct-2023 This is the date of SIPCO send the communication report /22/ of this monitoring period to Laos' Red Cross. Laos' Red Cross are large organizations at all administrative levels (Village, District, Province, Nation) through their network has communicated with other stakeholders of the project activity. This was verified by reviewing the communication reports /22/ & onsite interview with Lao Red Cross and different stakeholders.
Communication of monitored results	The monitored results have been properly documented in the communication report /22/ sent to Laos' Red Cross. It was cross-checked by interviewing with Laos' Red Cross onsite.
Consultation records	The verification team confirmed the method for documenting the outcomes of local stakeholders' ongoing consultation and account of all inputs received through reviewing of communication reports /22/, consultation records /22/ & onsite interview.

Stakeholder input	There is feedback were seen in the annual ongoing communication report & record /22/ sent to donors, however, those were all positive feedback, no negative comment was received. Some local end-users would like to receive bigger or more ICS. All has been addressed by SIPCO in their answer forms /18/ sent back to Laos Red Cross so they can feedback to local stakeholder properly. This has been verified by reviewing all the form and confirmed this has been reported correctly in the MR /01/.
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4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	On the basis of onsite interview, reviewing of registered VCS PD & validation report /24/, MR /01/ & local stakeholder consultation documents /13/ and ongoing communication report /22/ the verification team confirmed that local governmental authority includes Chiefs of villages are well-informed about this project activity in a series of consultation meetings and totally support it as verified by local stakeholders' consultation meeting records /13/ and ongoing communication report /22/ & onsite interview. In addition, ICS distribution is a completely voluntary activity and households in participating villages are free to choose whether they take part or not as per beneficiary agreement /16/. Free, prior, and informed consent takes place before installation.
Outcome of FPIC discussion	As verified through local stakeholders' consultation meeting records /13/ and ongoing communication report /22/ & onsite interview, the project activity has consent from stakeholders.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	There is no grievance received during this verification period.

Grievance redress procedure	On the basis of onsite interview, reviewing of registered VCS PD /24/, MR /01/ the verification team confirms on the grievance redress procedure /17/ and method for documenting, acknowledge, investigate and address the grievance /19/ and account of all grievance received reported in the MR /01/. During onsite visit, the verification team confirms that they end-users and stakeholders know how to raise and send their grievance, but no grievance was made during this monitoring period. Hence the verification team deemed the grievance redress procedure including the grievance record as appropriate.
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4.2.5 Public Comments

Not applicable. No public comments were received for this project activity during this monitoring period.

4.2.6 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Risks to stakeholder participation	No risk was identified to stakeholder participation as verified during onsite visit & interviewed with stakeholder, review of the registered VCS PD /24/ and MR /01/. There is no trade-off or any negative impact to their livelihood, land, food, etc when receiving the ICS.
Working conditions	No risk was identified in working condition as verified during onsite visit & interviewed with stakeholder, review of the registered VCS PD /24/ and MR /01/. The PP has employed all their staff in compliance with host country's Labor Law.
Safety of women and girls	No risk was identified in safety of women and girls as verified during onsite visit & interviewed with stakeholder, review of the registered VCS PD /24/ and MR /01/. The implementation of this project activity is also in partnership with Lao Red Cross, a socio-political organization that protect human life and health, to ensure respect for all human beings, and to prevent and alleviate human suffering in Laos. Therefore, they would ensure there is no risk of safety of women and girls during project implementation as per confirmed during onsite interview.

Safety of minority and marginalized groups, including children	No risk was identified in safety of minority and marginalized groups, including children as verified during onsite visit & interviewed with stakeholder and review of the registered VCS PD /24/ and MR /01/. The implementation of this project activity is also in partnership with Lao Red Cross, a socio-political organization that protect human life and health, to ensure respect for all human beings, and to prevent and alleviate human suffering in Laos.. Their policies also include childcare, education, community services, to health education. They would ensure there is no risk of Safety of minority and marginalized groups, including children as per confirmed during onsite interview.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	No risk was identified in any additional pollutants in comparison with the baseline scenario. On the basis of review of the registered VCS PD /24/ and MR /01/, onsite observation and interview with local stakeholder, the project activity has a positive impact in this aspect as it helps reduce air pollutants from wood smoke and improve the air quality indoor.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	On the basis of review of the registered VCS PD /24/ and MR /01/, onsite interview and observation, the verification team found no discrimination and sexual harassment. The PP also have company code of conduct /25/ which indicated clearly that they have no tolerance for any discrimination and sexual harassment.
Management experience	On the basis of review of the registered VCS PD /24/ and MR /01/, onsite interview and observation, they verification team confirmed that SIPCO has been involved in many similar carbon projects and have experience in community engagement. Their management team have more than 10 years' experience in this topic as verified by their historical projects /26/.
Gender equity in labor and work	On the basis of review of the registered VCS PD /24/ and MR /01/, onsite interview and observation, the verification team found that PP is continuing to promote gender equality in labor and work.

	The PP have company code of conduct /25/ which indicated clearly that they have no tolerance for any discrimination especially in gender. The project will also encourage women in the local communities to take up employment as per their skills and will provide training to all staff regardless of gender. The company as per its human resource policy ensures fair opportunity and equal pay for equal work done to both men and women. Furthermore, the project activity will provide more opportunities to women through self-help groups, thus helping in overall women empowerment as per confirmed during onsite interview.
Human trafficking, forced labor, and child labor	On the basis of the registered VCS PD /24/ and MR /01/, onsite interview and observation, the verification team found no sign of human trafficking, forced labor and child labor. This is also prohibited as per host country's Labor Law and the PP has employed all their staff in compliance with host country's Labor Law as verified by company code of conduct /25/ & interview with PP during onsite visit.

4.2.7.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	On the basis of the registered VCS PD /24/ and MR /01/, onsite interview and observation, the verification team found that project always respects and promotes the human rights in line with applicable international human right. All the stakeholders can voluntarily participate in the project activity. All the information was shared transparently for all stakeholder and end-users through local stakeholder consultation /13/ and ongoing communication report /22/. The contractors/ workers who participated in this project activity also need to follow & comply the PP code of conduct /25/ which also have a rule related to this matter.

4.2.7.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Preservation and protection of cultural heritage	On the basis of the registered VCS PD & validation report /24/, MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not have any activity which bring any negative impact to the indigenous peoples and cultural heritage.
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4.2.7.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Disputes over rights to territories and resources	On the basis of the registered VCS PD & validation report /24/ and MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not have activity which disputes over rights to territories and resources
Respect for property rights	On the basis of the registered VCS PD & validation report /24/ and MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not involve any property right removal/relocation of property rights holders.

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Not applicable as the project activity does not involve any property right.
Benefit sharing during the monitoring period	Not applicable as the project activity does not involve any property right.

4.2.8 Ecosystem Health

On the basis of reviewing the registered VCS PD & validation report /24/, MR /01/, observation & interview onsite with different stakeholder, the verification team confirmed that the implementation of the grouped project does not impose any severe impacts on the ecological system in the surrounding areas. In contrast, this project activity will help in reducing the consumption of fuel wood by efficient fuel combustion thereby reducing deforestation and reducing indoor air pollution. Therefore, it has no impact to ecosystem health, so this section is not applicable.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No risk identified at validation
Soil degradation and soil erosion	No risk identified at validation
Water consumption and stress	No risk identified at validation
Usage of fertilizers	No risk identified at validation.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	On the basis of reviewing the registered VCS PD & validation report /24/, MR /01/, observation & interview onsite with different stakeholder, the verification team confirmed that the implementation of the grouped project does not have any adversely impact habitats for rare, threatened, or endangered species.

4.2.8.2 Introduction of Species

Not applicable.

On the basis of reviewing the registered VCS PD & validation report /24/, MR /01/, observation & interview onsite with different stakeholders, the verification team confirmed that the implementation of the grouped project does not introduce any species to the ecosystem.

4.2.8.3 Ecosystem conversion

Not applicable.

On the basis of reviewing the registered VCS PD & validation report /24/, MR /01/, observation & interview onsite with different stakeholders, the verification team confirmed that the implementation of the grouped project does not involve any ecosystem conversion.

4.3 Accuracy of Reduction and Removal Calculations

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the MR /01/. The emission reductions of the project instances of the grouped project and project activity instance are calculated using the formulae mentioned in the applied methodologies; VMR0006 version 1.1 /B02/. The verification team has reviewed the emission reduction spread sheets (ER sheets) and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the registered PD /24/ and the applied monitoring methodology.

According to applied methodology VMR0006 (version 1.1) & AMS-II.G (version 11) /B02/the emissions are calculated as below:

Baseline Emission:

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

Where;

I : Indices for the situation where more than one type/model of improved cookstove is introduced to replace three-stone fire.

j : Indices for the situation where there is more than one batch of improved cookstove of type i

ER_y : Emission reductions during year y in t CO₂e

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

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

Where:

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

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

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

EF_{wf,CO_2} : CO₂ emission factor for the use of wood fuel in baseline scenario (IPCC default for wood fuel, 112 tCO₂/TJ)

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

$N_{y,i,j}$: Number of improved cookstoves of type I and batch j operating during year y

0.95 : Discount factor to account for leakage

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

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

Where:

$\eta_{new,y,i,j}$: Efficiency of baseline cookstove

η_{old} : Efficiency of the improved cookstove type I and batch j determined through water boiling test (WBT) during year y. Alternatively, efficiency may be determined using Equation 4.

$B_{y=1,new,i,survey}$: Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type I and batch j, determined in the first year of the implementation of the project through a sample survey.

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

Where:

η_p : Efficiency of project stove (fraction) at the start of project activity.

$(DF_n)^{y-1}$: Discount factor to account for efficiency loss of project cookstove per year of operation (fraction). This value may be based on actual monitoring or based on manufacturer's declaration on expected loss in efficiency or through publicly available literature on relevant industry standards. Alternatively default value of 0.99 efficiency loss per year can be considered.

0.94 : Adjustment factor to account for uncertainty related to project cookstove efficiency test.

Leakage Emissions: In accordance with methodology VMR0006 version 1.1 /B02/ & section 5.4 of AMS-II.G, leakage is considered as default 0.95.

Sampling approach: The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B02/ and the registered VCS PD /24/. As assessed in this section, emission reductions for the project "Grouped Projects for Laos Improved Cookstove" have been claimed for this monitoring period and the total population of the stoves for this monitoring period (10-March-2023 to 30-September-2023) is 136,381 ICS.

The PP has performed stratified random sampling procedure across stove model and age, reliability levels were set at 95% confidence and 10% precision in line with the applied methodology VMR0006 version 1.1 /B02/. Although the distribution of cookstoves took place in different geographical areas within host country (Laos) the factor of geographical location has minor impact on the operational status of the distributed cookstove & the quantity of woody biomass used by the project devices. Therefore, the population across geographical location is rather homogeneous when it comes to operational status of the distributed cookstove & the quantity of woody biomass used by the project devices. Instead, PP has taken their knowledge about the stove model and age differences into account when they do the sampling, and sample separately from each stove model and age population. These are the reasonable

assumptions as the stove model and age has obvious impacted on the operational status & quantity of wood biomass used. Therefore, the stratified random sampling procedure across stove model age was accepted by the verification team. As the registered VCS PD /24/ mentions the option for stratified random sampling procedure, it is acceptable to the verification team. The sampling surveys have been carried out by the well-trained personnel /12/.

The monitoring parameter required to be monitored through the sampling plan in this verification period is:

1. Number of project devices operating during year y ($N_{y,j,j}$)
2. Quantity of woody biomass used by improved cookstoves ($B_{y=1,new,l,j,survey}$)

The sample size calculations for the monitoring parameter monitored through the sampling have been provided in the table below. The calculated sample size for the parameter $N_{y,l,j}$ is 43. While taking in view for the outliers and nonresponse PP calculated an additional 20% of the sample to be surveyed, a total of 54 samples were selected.

The detailed calculation of sample size for the monitoring parameters $N_{y,l,j}$ apply the formulae below:

$$n \geq \frac{1.96^2 N \times p \times (1 - p)}{(N - 1) \times 0.1^2 \times p^2 \times 1.96^2 p \times (1 - p)}$$

Where

n = sample size

N = population size (total number of ICS)

P = expected proportion

1.96 = represent 95% confidence required

0.1 = represent 10% relative precision

Definition	Value	Justification
The population size N is	55,986	Number of Ecozen stoves (age 1) in Houaphanh registered in database /09/
	29,461	Number of Ecozen stoves (age 1) in Bolikhamxay registered in database /09/
	2,632	Number of Ecozen stoves (age 1) in Xaysomboun registered in database /09/
	4,526	Number of Ecozen stoves (age 1) in Khammounan registered in database /09/
	43,776	Number of Ecozen stoves (age 1) in Xiengkhoang registered in database /09/
The expected proportion p for $N_{y,i}$ is	0.9	90% is applied for sample size calculation

Based on the above assumptions, the resulting sampling size is calculated as:

$$= \frac{1.96^2 \times 136,381 \times 0.9 \times (1 - 0.9)}{(136,381 - 1) \times 0.1^2 \times 0.9^2 + 1.96^2 \times 0.9 \times (1 - 0.9)} = 43 \text{ (rounded up)}$$

Therefore, in this case, the sample size for the parameter $N_{y,l,j}$ is 43 (rounded value). While taking in view for the outliers and nonresponse PP calculated an additional 20% of the sample to be surveyed, a total of 54 samples were selected as per below calculated.

Description	Calculated sample size	Actual monitored sample size (inclusive of 20% non-response)
Total sample size required	43	Roundup (43/0.8) = 54
Sample size for Ecozen stoves (age 1) in Houaphanh	$\left(43 \times \frac{55,986}{136,381}\right) = 18 \text{ (roundup)}$	Roundup (18/0.8) = 22
Sample size for Ecozen stoves (age 1) in Bolikhamxay	$\left(43 \times \frac{29,461}{136,381}\right) = 9 \text{ (roundup)}$	Roundup (9/0.8) = 11
Sample size for Ecozen stoves (age 1) in Xaysomboun	$\left(43 \times \frac{2,632}{136,381}\right) = 1 \text{ (roundup)}$	Roundup (1/0.8) = 1
Sample size for Ecozen stoves (age 1) in Khammounan	$\left(43 \times \frac{4,526}{136,381}\right) = 1 \text{ (roundup)}$	Roundup (1/0.8) = 2
Sample size for Ecozen stoves (age 1) in Xiengkhoang	$\left(43 \times \frac{43,776}{136,381}\right) = 14 \text{ (roundup)}$	Roundup (14/0.8) = 18

For the parameter $B_{Y=1,news,l,survey}$ the calculated sample size (for parameter of interest is a numeric mean value) is less than 30 samples, the Student's t-distribution will be used to calculate the sample size (in accordance with paragraph 14 of standard: sampling and survey for CDM project activities and programmes of activities (version 09.0). The adjusted sample size obtained after applying Student's t-distribution is 7.

The performance of ICS or stove efficiency is characterized by the range of likely mean woody consumption and the likely values of SD relative to the mean. Therefore, the parameter $B_{Y=1,news,l,survey}$ and Stove efficiency are considered as directly related. As the approach of determine the sample size of one parameter based on another related parameter is often used in statistical studies, the sample size of parameters $B_{Y=1,news,l,survey}$ was calculated through stove efficiency deem plausible by the verification team. The detailed calculation of sample size for the monitoring parameters $B_{Y=1,news,l,survey}$ apply the formulae below:

$$n \geq \frac{1.96^2 NV}{(N - 1) \times 0.1^2 + 1.96^2 V}$$

Where:

$$V = \left(\frac{SD}{mean}\right)^2$$

n = sample size

N = population size (total number of ICS)

Mean = expected mean of ICS thermal efficiency

SD = expected standard deviation

1.96 = Represents the 95% confidence required

0.1 = Represents the 10% relative precision

Definition	Value	Justification
The population size N is	55,986	Number of Ecozen stoves (age 1) in Houaphanh registered in database /09/
	29,461	Number of Ecozen stoves (age 1) in Bolikhamxay registered in database /09/
	2,632	Number of Ecozen stoves (age 1) in Xaysomboun registered in database /09/
	4,526	Number of Ecozen stoves (age 1) in Khammounan registered in database /09/
	43,776	Number of Ecozen stoves (age 1) in Xiengkhoang registered in database /09/
Expected mean Efficiency	0.3844	Manufacturer's specification of Ecozen /4/
Expected SD	0.0384	Expect SD of Ecozen based on researcher's own experiences

Based on the above assumptions & values, the calculation would be:

$$n \geq \frac{1.96^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 1.96^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 3.841$$

The resulting sample size based on the above equation is smaller than 30, since $B_{y=1, \text{new}, I, \text{survey}}$ is a numeric mean value (i.e. not a proportion or percentage) the Student's t-distribution shall be used as per paragraph 14 of "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities, version 09.0.

The calculation now needs to repeat using t-value for 95% confidence and $n = 4$ (roundup), which means T-value = 3.182

$$n \geq \frac{3.182^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 3.182^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 10.13$$

The calculation now needs to repeat using t-value for 95% confidence and $n = 11$ (roundup), which means T-value = 2.228

$$n \geq \frac{2.228^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.228^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 4.97$$

The calculation now needs to repeat using t-value for 95% confidence and n = 5 (roundup), which means T-value = 2.776

$$n \geq \frac{2.776^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.776^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 7.71$$

The calculation now needs to repeat using t-value for 95% confidence and n = 8 (roundup), which means T-value = 2.365

$$n \geq \frac{2.365^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.365^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 5.60$$

The calculation now needs to repeat using t-value for 95% confidence and n = 6 (roundup), which means T-value = 2.571

$$n \geq \frac{2.571^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.571^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 6.61$$

The calculation now needs to repeat using t-value for 95% confidence and n = 7 (roundup), which means T-value = 2.447

$$n \geq \frac{2.447^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.447^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 5.99$$

The calculation now needs to repeat using t-value for 95% confidence and n = 6 (roundup), which means T-value = 2.571

$$n \geq \frac{2.571^2 \times 136,381 \times \left(\frac{0.03844}{0.384}\right)^2}{(136,381 - 1) \times 0.1^2 + 2.571^2 \times \left(\frac{0.03844}{0.384}\right)^2} = 6.61$$

The repeated calculation shows that n = 7. Thus, the sample size for $B_{y=1, \text{new}, i, \text{survey}}$ is 7.

Since parameters $N_{y,j,j}$, and $B_{y=1, \text{new}, i, \text{survey}}$ share the same sampling units, PP may choose to have one common survey for these two parameters with largest number of sample size between these two parameters being chosen. Therefore, the actual sample size of $B_{y=1, \text{new}, i, \text{survey}}$ is the same with $N_{y,j,j}$,

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

Parameters	$N_{y,j,j}$	$B_{y=1,new,l,survey}$
Total sample size	54	54
Survey result	1	4.051 kg/day/stove
Precision achieved	0.00%	3.5% (SD = 0.532)

VVB used sampling during verification for checking the operational status in the households. The sampling done by VVB reflects the population of the project activity, independent from the samples that the project proponent surveyed for monitoring. VVB applied paragraph 26 of the Standard, Sampling and surveys for CDM project activities and programmes of activities, version 09 /B04/. In accordance with the paragraph 28 of the sampling standard, acceptance sampling has been chosen by the verification team and accordingly steps listed in paragraph 29 of the sampling standard /B03a/ shall be followed. The verification team has opted for AQL of 0.5% and UQL of 20%; producer risk and consumer risk of 10% in determining the VVB's sample size.

A sample size of 11 households was chosen (with no discrepant records). A sample size of 11 was determined, based on an AQL of 0.5% and UQL of 20%, producer risk 10% and consumer risk 20%. Acceptance number (c) thus determined for the sample is 0. VVB utilized a random number generator website to select 11 samples from the PP's survey sample list. VVB visited/interviewed 11 samples (each, for monitoring survey) from PP's sample list. It was observed that out of the 11 samples, all the 11 stoves were found to be operational, and this matched with the PP's records and hence no discrepant records were observed with the MR /01-2/ and ER sheet /02/ and thus $c=0$. Thus, PP's set of records has been accepted in line with § 33 of the sampling standard, version 09 /B04/. Verification team has cross verified these sample documents.

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

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

Onsite assessment of Monitoring parameters (namely $N_{y,j,j}$ & $B_{y=1,new,i,j,survey}$) was conducted based on following methods:

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

PP has explained the process of conducting measurement campaign during the onsite interview. As PP, in the early morning before household do any cooking, field staff visited and asked the user for the total wood available in the house and the field staff performed weighted measurement with the calibrated weigh scale by themselves /23/, and then in the late evening, when all the cooking was done, the field staff asked for the remaining wood available in the house from the end-users and the field staff performed weighted measurement again with the calibrated weigh scale /23/. From those number, the field staff can calculate the Weight of firewood used on project stove kg/day and write in the monitoring survey.

In case, any users still use the traditional cookstove, they were asked to extract and make the piles for the wood used for the project stove and traditional stove separately and the field staff weigh both the piles before and after cooking day and recorded in the survey forms and in the spreadsheet. Therefore, firewood consumed for each project stove and baseline stove can be distinguished clearly. The calibration record /23/ of the weighing scale used for measuring the fuel wood was checked by the VVB and deemed acceptable. This process also confirmed by onsite interview with the household end-users.

In addition, to verified the values in the survey forms, during the onsite inspection, the VVB also asked the field staff to perform the weighted measurement at some households apart from interview to ascertain the value of $B_{y=1,new,l,j,survey}$. The weighted measurement performed during onsite inspection by VVB showed the results is in line with the value in the survey monitoring /07/. Therefore, the verification team deems the monitoring result of the value of $B_{y=1,new,l,j,survey}$ in the survey monitoring /07/ is reasonable and acceptable.

During the onsite interviews with PP's representative, VVB was able to understand the process in line with the methodology VMR 0006 version 1.1/B02/ and the PP monitoring procedure in line with the VCS PD /24/.

It is worth to note here that PP has selected the same households for both parameters above and for the same reason, VVB's sample for acceptance sampling was the same for both the parameters. VVB could verify the original survey forms /07/ and data/information flow to sampling sheet and ER spread sheet /02/. No discrepancy was found in the data/information flow. As per the section 2.3 above the end users were not interviewed in a single day. Moreover, PP has conducted the monitoring survey /07/ from 25-Sept-2023 to 28-Sept-2023. According to Sampling and Survey Standard, v9.0, there is no requirement on when the monitoring sampling survey should be conducted. However, the PP has conducted the monitoring survey /07/ during the last month of monitoring period. To be specific, PP has finished the monitoring survey on 28-Sept-2023 which was just 3 days earlier than the end date of monitoring period (30-Sept-2023), the verification found that it was a relatively short period and therefore it was unlikely that there would have any change in the result from the monitoring survey.

Hence, the survey process deemed acceptable to the verification team. Furthermore, the database /09/ and ICS free distribution agreement /15/ was also checked/cross verified to confirm the number cookstove for the parameter $N_{y,i,j}$.

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

- (a) Whether the required confidence/precision has been met.
- (b) Whether the selected sample was representative of the population.

Parameter	How the PP conducted sampling surveys (to obtain the project participants' or the coordinating/managing entities' records)	How the VVB could obtain records for verification	Criteria for deciding what ultimately constitutes a discrepancy
Number of project devices operating during year y ($N_{y,j,j}$)	Sampling based survey (questionnaire survey/interviews) Visual inspection of the premises to see if ICS is operational and in use. Interview with end user if required to verify that ICS is still in use [Yes/No]	• Cross-check of a sample of project participants' samples (questionnaire operation surveys/interviews) including but not limited to following: • Consistency between the information as contained in Survey sheet and revealed from the onsite interviews • Baseline scenario of the household • Enquire/observe the pre-project/baseline stove/s and its operation during the project scenario.	VVB results, accounting for duly justified differences.
Quantity of woody biomass used by improved cookstoves ($B_{y=1,new,l,j,survey}$)	Interview with end user and measurement of wood fuel used for project stove [Weight of fuel wood]	• Enquire/observe parallel use of any other stove and their fuel • Enquire/observe source /storage of fuelwood /charcoal or any other fuel • Enquire number of meals cooked (along with family size of household) on	VVB results, accounting for duly justified differences

		project cook stove or any other baseline and/or stoves utilizing other fuel/s.	
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The sampling plan implemented by the PP is in accordance with the applied approved monitoring methodology /B02/ and the registered VCS PD /24/. The PP has appropriately performed stratified random sampling procedure across stove model and age which is in line with the applied methodology. As the registered VCS PD /24/ mentions the option for stratified random sampling procedure, it is acceptable to the verification team.

The necessary confidence / precision of 95/10 each of the parameters are met. This has been cross verified by the verification team from the supporting documents submitted.

Emission reductions have been calculated in accordance with the applied methodology VMR0006 version 1.1 /B01/, and registered VCS PD /24/. The PP has used monitored data and ex-ante fixed data including default values as mandated/permitted by the applied methodology. The values used for calculation of GHG emission reductions have been thoroughly checked by the verification team and was found appropriate and correct.

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

Parameters Determined ex-ante:

Parameter	Unit	Value	Assessment
$f_{NRB,y}$	Fraction	0.6882	- Fixed ex-ante -The value is calculated by third party C4Ecosolutions /08/ in line with the applicable methodological CDM Tool 30, version 4.0. An uncertainty reduction of 26% as per VMR006, version 1.2 was also applied. This found to be valid and consistent with registered VCS PD & corresponding validation report /24/. Thus, the verification team accept it.
$NCV_{wood\ fuel}$	TJ/tonne	0.0156	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
EF_{wf,CO_2}	tCO ₂ /TJ	112	- Fixed ex-ante - Default values from the 2006 IPCC Guidelines have been used.
$EF_{wf,non\ CO_2}$	tCO ₂ /TJ	26.23	- Fixed ex-ante

			- Default values from the 2006 IPCC Guidelines have been used.
η_{old}	Fraction	0.1	- Fixed ex-ante - Default values from the methodology.
η_p	Fraction	Ecozen: 0.3844	- Fixed ex-ante - Manufacturers specification /04.a/ & efficiency tests performed by third party /04.c/

The spread sheet submitted by the PP clearly and transparently mentions values of the data parameters used for calculation of emission reductions. The input values have been verified from the reliable and authentic sources including monitoring survey records /06//07/, distribution database /09/, MR /01/, and applied methodology /B01/. The emission reductions calculated were compared with the ER spread sheet /02/ and found to be correct. No significant reporting risks have been identified for the data reported.

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

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Number of project devices of type I and batch j operating during year y ($N_{y,i,j}$)
Measuring frequency/Time Interval:	Once every two years
Reporting frequency:	Once every two years
Reported value:	$N_{y,i,j} = 100\% * 136,381 = 136,381$ ICS (Proportion of operational stoves obtained from the survey is 100%)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained from monitoring survey of samples /06//07/ and distribution database /09/.
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /07/ and the ER sheet /02/. The total number of ICS has been cross checked with the database /09/ evidence to demonstrate ICS as free

	of cost to the user /15/ and procurement evidence (e.g. equipment contract, payment proof and delivery confirmation) /29/ as provided by the PP. The PP organized a massive distribution campaign with the aim of providing ICS to households promptly. They normally transported and gathered ICSs in district's local temporary warehouses one week before the mass distribution events which can be verified by reviewing the delivery confirmation /29/. During the dates of mass distribution, SIPCO in conjunction with the local partner (Laos Red Cross) would conduct the ICS distribution activities in all communes within the district. The representative of households whose names were on the demand registration list who have been predetermined to be eligible to participate in the project were invited to the distribution's points to attend the communication session and receive ICS. It has been verified by reviewing photos of the mass distribution event and interviewed with local partner (Laos Red Cross) & end-users during the onsite visit. VVB confirms here that onsite assessment of Monitoring parameter $N_{y,i,j}$ was conducted based on following two methods: • Confirmation with the household/end user whether or not the PP has performed monitoring/measurement campaign, survey on stove operation (for the parameter $N_{y,i,j}$) • Assessment of Competence of personnel involved in conducting the survey /12/
How were the values in the monitoring report verified?	NA
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in	NA

accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?

Monitoring Parameter Requirement	Assessment/ Observation by the VVB			
Data / Parameter: (as in monitoring plan of VCS PD):	Efficiency of the improved cookstove type i and batch j during year y ($\eta_{new,y,i,j}$)			
Measuring frequency/Time Interval:	Annual			
Reporting frequency:	Annual			
Reported value:		Year (y)	$\eta_{new,i,j}$, Ecozen	
		1	0.3613	
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes			
Details of monitoring equipment:	Value is calculated using equation 5, VMR0006, version 1.1 $\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$ For Ecozen (age 1) $\eta_{new,y,i,j} = 0.3844 \times (0.99)^{1-1} \times 0.94 = 0.3613$ The calculation is correctly done. Efficiency of Ecozen stove (fraction) at the start of project activity has been verified by cross-check with the technical specification of the ICS /04/ & ICS efficiency tests performed by third party /04.c/.			
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /07/ and the ER sheet /02/. The total number of ICS has been cross checked with the database /09/, and evidence to demonstrate ICS as free /15/ as provided by the PP.			

How were the values in the monitoring report verified?	The value has been verified by checking the technical specification of the ICS /04/, ICS efficiency tests performed by third party /04.c/, the distribution database /09/ and the calculations from ER sheet /02/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	Annual quantity of woody biomass used by improved cookstoves in tonnes per device of type I and batch j (By=1,new,I,j,survey)
Measuring frequency/Time Interval:	In the first year of project implementation
Reporting frequency:	In the first year of project implementation
Reported value:	It was found during survey firewood usage was 4.051 kg/day (the average value of entire samples) which is used for calculation of ER. 4.051 kg/device/day or equal to 1.479 tonnes/device/year.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained from monitoring survey of samples /07/

	Weighing scale: • Type: Electro-HY10-TD30 • Serial number: HD100-D170035126 • Manufactured: Kern Germany • Max capacity: 15 000g • Scale division: 5g • Degree of accuracy: 3 • Calibration date: 13/02/2023 • Valid until: 12/02/2024 Calibration /23/ of weighing scale used for measuring the fuel wood was done by Phanthamit Analytical Lab Co., Ltd, a well-known third-party testing company. The calibration /23/ is also valid during the time of monitoring period.
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR/01/ has been compared with the ER sheet /02/. VVB during the onsite assessment of Monitoring parameters $B_{y=1,new,l,j,survey}$ was conducted based on following steps: • Review the survey questionnaire template & monitoring survey records /07/ to confirm if it includes the request to confirm on baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households or not. In case, multiple devices are used, the survey questions are allowed to clearly differentiate the quantity of firewood being used by each device. • Confirmation with the household/end user whether or not the PP has performed monitoring/measurement campaign (or parameter $B_{y=1,new,l,j,survey}$) and survey on stove operation (for the parameter $N_{y,l,j}$). • Assessment of Competence of personnel involved in conducting standardized tests viz., $B_{y=1,new,l,j,survey}$ and surveys: Verification team has reviewed the abilities, qualifications and

recognition of involved personnel and institutions of the measuring team involved in the $B_{y=1,new,l,j,survey}$. The verification team based on onsite interviews confirms that the team was qualified to carry out the $B_{y=1,new,l,j,survey}$ and Usage survey in line with the methodology.

- The calibration record /23/ of the weighing scale used for measuring the fuel wood was checked by the VVB.

PP has explained the process of conducting a measurement campaign. As PP, in the early morning before households begin cooking, field staff ask the users about the total wood available in the house and weigh it with a calibrated scale. Then, in the late evening after all the cooking is done, the field staff ask about the remaining wood available in the house and weigh it again with the same calibrated scale. Using these numbers, the field staff can calculate the weight of firewood used on the project stove per day and record it in the monitoring survey.

In case, any users still use the traditional cookstove, they were asked to extract and make the piles for the wood used for the project stove and traditional stove separately and the field staff weigh both the piles before and after cooking day and recorded in the survey forms and in the spreadsheet. Therefore, firewood consumed for each project stove and baseline stove can be distinguished clearly. The calibration record /23/ of the weighing scale used for measuring the fuel wood was checked by the VVB and deemed acceptable.

In addition, to verified the accuracy of values in the survey forms, during the onsite inspection, the VVB also asked the field staff to perform the weighted measurement at some households apart from interview to ascertain the value of $B_{y=1,new,l,j,survey}$. The weighted measurement performed during onsite inspection by VVB showed the results are in line with the values in the survey monitoring /07/. Therefore, the verification team deems the monitoring result of the value of

	$B_{y=1,new,l,j,survey}$ in the survey monitoring /07/ is reasonable and acceptable. PP has also detailed the survey process and calculation method under section 4.2 of the MR.
How were the values in the monitoring report verified?	The value has been verified by checking the technical specification of the ICS /04/, ICS efficiency tests performed by third party /04c/, the distribution database /19/, monitoring survey records /07/, onsite sampling and interview with end-users and field staff and the calculations from ER sheet /02/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	The operating lifetime of the project device. (Life Span)
Measuring frequency/Time Interval:	Once at the time of project stove installation
Reporting frequency:	Once at the time of project stove installation
Reported value:	10

Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	Value obtained from Manufacturer specification /04/
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data in MR has been compared with monitoring survey records /07/ and the ER sheet /02/. The total number of ICS has been cross checked with the database /09/ and evidence to demonstrate ICS as free /15/ as provided by the PP.
How were the values in the monitoring report verified?	The value has been verified by checking the technical specification of the ICS /04/.
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	NA

Verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered VCS PD /24/. The total number of emission reductions for the monitoring period 10-March-2023 to 30-September-2023 is 204,118 tCO₂e.

The verification team has checked and confirmed the calculations in the spreadsheet and found to be accurate. The monitoring report is supported by emission reduction spreadsheet. The consistency and formula were verified and found to be accurate.

4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals

EPL verification team was able to confirm that the calculations are based on authentic data and the ER spreadsheet /02/ used to calculate the VCUs 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 on-site audit to confirm the authenticity of the documents and to check the correctness of the calculation.

When verifying the reported emission reductions, EPL ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source of documents that form the basis for assumptions and other information underlying the GHG data were checked by the verification team.

When assessing the audit trails, EPL also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. The source and nature of the evidence.
3. If comparable information was available from sources other than that used in the monitoring report, EPL cross-checked the monitoring report against the other sources to confirm that the stated figures were correct.

EPL also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology /B02/.

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

Therefore, Verification Team of EPL hereby confirms that the evidence used to determine the GHG emission reductions are sufficient in quantity and appropriate in quality.

4.5 Non-Permanence Risk Analysis

N/A

There is no requirement for non-permanence risk analysis for this project.

5 VERIFICATION OPINION

5.1 Verification Summary

EcoLance Private Limited, (the VVB) has performed the first (1st) emission reduction verification of the registered VCS project activity “Grouped Projects for Laos Improved Cookstove” having VCS ID: 2924.

The scope of the activities covers the verification and certification of GHG emissions reductions reported in latest monitoring report /01/. And this report summarizes the findings of the verification of the project, performed on the basis of VCS criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project activity falls under the group project which involves the distribution of involves distribution of fuel-efficient improved cook stoves (ICS) in Laos. The verification process was performed on the basis of all guidance and criteria as provided in VCS Standard version 4.5 /B01-a/, VCS Program Guide version 4.4 /B01-b/, VCS Validation and Verification Manual version 3.2 /B01-c/, ISO14064-3: 2019 and Registration & Issuance Process version 4.4 /B01-d/.

The component project activities PA001, PA002, PA003, PA004, PA005, PA006, PA007, PA008, PA009, PA010, PA011, PA012, PA013, PA014 were correctly implemented according to selected monitoring methodology, monitoring plan and the registered VCS PD /24/ for the grouped project activity. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on-visit the verification team confirms that the project activity has resulted in emission reductions of 204,118 tCO₂e during the first monitoring period 10-March-2023 to 30-September-2023 as per MR /01/.

5.2 Verification Conclusion

EcoLance Private Limited as a VVB is able to issue a positive verification opinion expressed in the attached Certification statement. And as the result of verification of the project activity of this grouped project, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. The project complies with the verification criteria for projects and their GHG emissions reductions or removal set out in VCS criteria.

EcoLance Private Limited herewith confirms that the project has achieved emissions reductions in the mentioned reporting period as follows.

Verification period: From 10-March-2023 to 30-September-2023

Verified GHG emission reductions and removals in this verification period is as below:

Verified GHG emission reductions and carbon dioxide removals in the above verification period:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU's (tCO ₂ e)	Removal VCU's (tCO ₂ e)	Total VCUs (tCO ₂ e)
10-March-2023 to 30-September-2023	204,118	0	0	204,118	0	204,118
Total	204,118	0	0	204,118	0	204,118

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
10-March-2023 to 30-September-2023	2,015,311	204,118	-89.87%	- The actual Pparameter By=1,new,i,j,survey is 4.051kg, decrease of 18.99% compare with the value of 5kg estimated value in registered PD., when do monitoring, this value is decrease. - The number of stoves distributed in many months, not fully distributed on the first day of distribution. - The project activity has not having fully been implemented and ICSs distribution is still ongoing. Total 136,381 ICSs were distributed till end of this monitoring period, lower than of 77.27% compare with 600,000 ICSs will distributed in registered PD in whole of lifetime of grouped project
Total	2,015,311	204,118	-89.87%	

Assessment on the reason of the difference between Ex-ante estimated reductions/ removals & achieved reductions/ removals:

Reason provided by PP	VVB's assessment
- The actual Pparameter By=1,new,i,j,survey is 4.051kg, decrease of 18.99% compare with the value of 5kg estimated value in registered PD., when do monitoring, this value is decrease.	The verification team examined the estimated value of By=1,new,i,j,survey in the registered VCS PD /24/ against the corresponding value in the survey monitoring report /7/. They confirmed the decrease in this value, which led to a reduction in the achieved reductions/removals. Consequently, we acknowledged this explanation.
- The number of stoves distributed in many months, not fully distributed on the first day of distribution.	The verification team reviewed the registered VCS PD /24/ & ERR spreadsheet /2/ and noted that the Ex-ante estimated reductions/removals were calculated based on the assumption that 300,000 ICS would be in operation from the project's start date. However, in reality, the distribution of these stoves occurred gradually between March 2023 and September 2023. By examining the distribution database /09/, implementation schedule, and procurement documents (such as contracts and delivery confirmations) /29/, the verification team confirmed this discrepancy. The actual number of operation date of the ICSs were lower than estimated, depending on the distribution date. As a result, this contributed to the decrease in achieved reductions/removals for this monitoring period. Therefore, we accepted this explanation.
- The project activity has not having fully been implemented and ICSs distribution is still ongoing. Total 136,381 ICSs were	The verification team reviewed the registered VCS PD /24/ & ERR spreadsheet /2/ and observed that the Ex-ante estimated reductions/removals were calculated based on the assumption

distributed till end of this monitoring period, lower than of 77.27% compare with 600,000 ICSs will distribute in registered PD in whole of lifetime of grouped project.	that 600,000 ICS would be in operation from the project's starting date. However, until the end of this monitoring period, only 136,381 ICSs was distributed & operational which is less than 77% of the estimated number and therefore significantly impacted the achieved reductions/ removals during this monitoring period. Consequently, we accepted this explanation.
In conclusion, the PP's explanation for the difference between ex-ante estimated reductions/removals and achieved reductions/removals is appropriated and thus, accepted by the verification team.	

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Not applicable.

No commercially sensitive information included in the monitoring report to be excluded in the public version.

<i>Section</i>	<i>Information</i>	<i>Justification</i>	<i>Assessment method and conclusion</i>
N/A	N/A	N/A	N/A

APPENDIX 2: ABBREVIATIONS

AQL	Acceptable Quality Level
BAU	Business As Usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
EPL	EcoLance Private Limited
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GCC	Global Carbon Council
GHG	Greenhouse gas(es)
GS	Gold Standard
GWh	Giga Watt Hour
ICS	Improved Cooking Stove
IPCC	Intergovernmental Panel on Climate Change
MW	Megawatts
MWh	Mega Watt Hour
OSV	On Site Visit
QC/QA	Quality control/ Quality assurance
SDG	Sustainable Development Goal
SIPCO	Sustainability Investment Promotion and Development Joint Stock Company
REC	Renewable Energy Certificate
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Level
VCS	Verified Carbon Standard
VVB	Validation / Verification Body

APPENDIX 3: REFERENCE DOCUMENTS

Ref	Document
/01/	1. Monitoring report for Grouped Projects for Laos Improved Cookstove (version 01, dated 05-October-2023) 2. Monitoring report for Grouped Projects for Laos Improved Cookstove (version 02; dated: 13-November-2023) 3. Monitoring report for Grouped Projects for Laos Improved Cookstove (version 03; dated: 04-December-2023) 4. Monitoring report for Grouped Projects for Laos Improved Cookstove (version 04; dated: 13-March-2024)
/02/	ER calculation spread sheet "VCS_ER_ID2924_10MAR2023_30SEP2023_Round 1" correspond to /01-2/
/03/	Agreement between beneficiary and SIPCO first stove distributed/installed LAO-001-ICS-0001 (evidence for the start date of the grouped project)
/04/	a. The technical specification certificate of Ecozen cookstove model. b. The Ecozen Lifespan study report c. Ecozen efficiency tests performed by Global Alliance for Clean Cookstoves
/05/	Proof of right of VCU.
/06/	Monitoring survey questionnaire template prepared by SIPCO
/07/	Monitoring survey records
/08/	f _{NRB} calculation report from a third party C4 Ecosolutions (Pty) Ltd.
/09/	Distribution Database
/10/	Evidence of unique identification system of the ICS.
/11/	Sample planning
/12/	Training records of personnel appointed for surveys.
/13/	Local Stakeholder MoM & stakeholder list
/14/	Random generator
/15/	ICS free distribution agreement
/16/	Beneficiary agreement (Carbon credit waiver)
/17/	Grievance mechanism procedure
/18/	Grievance addressable procedure

/19/	Grievance form and response from PP
/20/	Declaration from the project proponent that the project is not creating any other form of environmental credit under any specific program.
/21/	Declaration from the project proponent that the project has not or shall not claim carbon credits any other scheme after Registration of the project under VCS.
/22/	Annual on-going communication reports by Laos Red Cross to SIPCO & by SIPCO to donor
/23/	Calibration certificate of weighing scale
/24/	Registered VCS PD & corresponding validation report.
/25/	SIPCO code of conduct
/26/	SIPCO's historical projects
/27/	Baseline survey report for Laos
/28/	KML file of project activity
/29/	ICS procurement documents - Equipment contract - Delivery confirmation - Payment proof

Background Documents

Ref	Document
/B01/	VCS Requirements - VCS Program Guide version 4.4, updated 29 August 2023 - VCS Standard version 4.5, updated 29 August 2023 - Program Definitions version 4.4, updated 29 August 2023 - Registration & Issuance Process version 4.4 updated 31 August 2023 - VCS validation and verification manual version 3.2, dated 19 October 2016 - VCS Verification report template v4.3, dated 29 August 2023
/B02/	Applied baseline and monitoring methodology VMR0006 "Methodology for installation of High efficiency firewood cookstoves", version 1.1
/B03/	"Standard for sampling and surveys for CDM project activities and programme of activities" (version 09.0) - Guidelines for sampling and surveys for CDM project activities and Programme of Activities (version 04)

/B04/	Website and links: 1. IPCC (http://www.ipcc-nggip.iges.or.jp) 2. http://cdm.unfccc.int 3. http://www.terra.org
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APPENDIX 4: CERTIFICATES OF COMPETENCE



Nguyen Hong Ngoc Trang

has been qualified for below schemes & Sectoral Scopes as per the requirements of ECOLANCE Private Limited to participate in validation/verification audits:

Standard	ISO 14064-1	ISO-14064-2	VCS
Qualified	☐	☐	☒

Role	Validator	Verifier	TL	Technical Reviewer	Technical Expert	Trainee Auditor
	☒	☒	☒	☐	☒	☐

Scopes Granted:

- Energy Industries (Renewable/Non-renewable sources)
- Energy Demand

Version	DATE OF APPROVAL	VALIDITY
1	15 October 2023	14 October 2024

Authorized Signatory



Rekha Menon
Director- Technical



Champok Buragohain

has been qualified for below schemes & Sectoral Scopes as per the requirements of ECOLANCE Private Limited to participate in validation/verification audits:

Standard	ISO 14064-1	ISO-14064-2	VCS
Qualified	☒	☒	☒

Role	Validator	Verifier	TL	Technical Reviewer	Technical Expert
	☒	☒	☒	☒	☒

Scopes Granted:

- Power Generation and Electric Power Transactions (Fossil fuel thermal/ Renewable energy non thermal)
- Energy Industries (Renewable/Non renewable sources)
- Energy Demand
- Waste handling and disposal

Version	DATE OF APPROVAL	VALIDITY
1	10 November 2021	09 November 2022
2	09 November 2022	08 November 2023
3	08 November 2023	07 November 2024

Authorized Signatory



Rekha Menon
Director- Technical

APPENDIX 5: FINDING LOGS

Table 1. CLs from this verification

Finding	CL 01		
Classification	☐ CAR	☒ CL	☐ FAR
Description of finding (VVB)	In section 1.7 of the MR, the PP does not to provide sufficient additional geographic information (with respect to the location of the instances) to enable evidence gathering by the validation/verification body.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The additional geographic information has been provided in revised PD, version 02		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has provided sufficient geographic information. This allows the verification team to cross-check and verify during the onsite assessment.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Table 2. CARs from this verification

Finding	CAR 01		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	The MR template is not the most updated one. Please use the most updated template.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The latest version of MR template, version 4.3 has been used		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of</i>	On the basis of review of the updated MR, it is clear that the MR template, version 4.3 has been used.		

<i>non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	
Conclusion <i>Tick the appropriate checkbox</i>	☐ 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)	Throughout the whole MR, the PP is requested to use the consistent format (DD-Month-YYYY) for the date throughout the document as per requirement of VCS Monitoring Report template V.4.3.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The format date of DD-Month-YYYY has been used throughout the whole MR, version 02		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, the consistent format (DD-Month-YYYY) has been used.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ 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)	In table 1, section 1.1 of the MR, the total number of ICS distributed in August and September 2023 mentioned in section 1.1 is not consistent with the number of ICS distributed mentioned in ER spreadsheet. Please review the numbers of ICs in August and September 2023.		

Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The total number of ICS distributed has been revised in updated ER sheet.
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that the total of ICS of August and September has been revised and found to be consistent with the values in ER sheet.
Conclusion <i>Tick the appropriate checkbox</i>	☐ 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)	In section 1.11, the description provided in some parts of the table 1: Sustainable Development Contributions is not yet sufficient as per requirement of the template. Please review and revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The detail description about SDG has been updated in table 1 of section 1.11 of revised MR		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the revised MR, it is clear that PP has revised the table 1 sufficiently as per requirement of template.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 05
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Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In section 3.4, 1. The new project instance: PA009 is not yet included in the table. 2. Please calculate the maximum energy saving for CPA in the ER spreadsheet and include them in the table in Section 3.4 to cross check the criteria no.7		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	1. PA 009 has been included in the table of section 3.4 of revised MR, version 02 2. The grouped project applied methodology VMR 006, this method can apply for large scale project, so the maximum energy saving does not apply for project instances. Moreover, each ICSs as a project activity instance, therefore, it is not required to divide any project activity instance into clusters. Therefore, the criterion No.7 is satisfied.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	1. On the basis of review of the revised MR, it is clear that the PA009 has been included in section 3.4. 2. As the grouped project applied methodology VMR006, which does not have any capacity limit, the calculation of energy saving of project instance is not required. PP has considered each ICS as a project activity instance which is deemed acceptable as per the VCS Program Definitions and VCS Standard /B01e/. Since the annual energy saving per ICS is approximately 0.0146GWth (Ecozen stove) and is less than 1.8 GWth, the capacity of project activity instance is well below the 1% of the threshold limit. Therefore, it is not required to divide any project activity instance into clusters.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		

Finding	CAR 06		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In section 4.3, the Analysis of data collected and confidence/precision achieved for parameter $B_{y=1,new,i,2022}$ is missing. Please include.		

Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The analysis of data collected and confidence/precision achieved for parameter $B_{y=1,new,i,survey}$ has been provided in section 4.3 of revised MR, version 02
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the revised MR, it is clear that PP has added the Analysis of data collected and confidence/precision achieved for parameter $B_{y=1,new,i,2022}$.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed

Finding	CAR 07		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding (VVB)	In section 5.2, the justification is not sufficient. Please review & revise.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	The description about project emissions has been provided in section 5.2 of revised MR.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the revised MR, it is clear that PP has revised the justification. The verification team has reviewed and confirmed that the justification is sufficient.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Outstanding finding (not closed) ☒ The finding is closed		