



VERIFICATION REPORT FOR “DISTRIBUTION OF ONIL STOVES – MEXICO, SAN FELIPE USILA 1”



Document Prepared by Earthood Services Limited

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Summary:

Earthood Services Limited (hereafter referred to as ESL) has been contracted by C-Quest Capital LLC to conduct the first verification of second crediting period for the project “Distribution of ONIL Stoves – Mexico, San Felipe Usila 1”, VCS ID 1216, against VCS Standard Version 4.1.

The verification includes confirming the implementation of the monitoring plan of the registered VCS PD and MR (Project ID 1216) and the application of the monitoring methodology as per AMS.II.G, Version 12 “Energy efficiency measures in thermal applications of non-renewable biomass”. A remote site visit was conducted to verify and cross-check the data submitted in the monitoring report.

Monitoring period for the current verification is considered from 01-01-2021 to 31-10-2021. The review of the project design documentation, monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and stakeholders have provided ESL with sufficient evidence to validate the fulfilment of the stated criteria.

The PP of the project activity is C-Quest Capital LLC and the distribution and installation of ONIL stoves is implemented by HELPS International A.C. in Mexico. The installed capacity of the project activity is 29,495 stoves out of 31,178 stoves installed stoves for this monitoring period. As per the test results, the ONIL stoves reduces the firewood consumption up to 58% compared to traditional baseline stoves and single ONIL stove can save up to 2.893 tons of CO₂ every year.

Since the project activity involves distribution of fuel-efficient stoves to reduce the firewood consumption by households. Therefore, the project reduces greenhouse gas emissions and thereby contributes to sustainable development.

A risk-based approach has been followed to perform this verification. In the course of verification, 01 Corrective Action request (CARs), 06 Clarification request (CLs) and 1 Forward Action request (FAR) from previous validation and were raised and successfully closed.

Summary of the verification conclusion:

Earthood confirms that the project is implemented in accordance with the registered VCS PD & MR. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the project’s GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluation we confirm that the emission reductions from the project activity “Distribution of ONIL Stoves – Mexico, San Felipe Usila 1” in Mexico during the period 01-01-2021 to 31-10-2021 (including both days) amount to 9,424 tons of CO₂e.

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1 INTRODUCTION

1.1 Objective

C-Quest Capital LLC has contracted Earthood Services Limited (Earthood) to perform VCS Verification of the ‘ONIL Stoves – Mexico, San Felipe Usila 1’ in Mexico (hereafter called project). This project has already been registered as a VCS project (VCS ID 1216). The objective of this verification is a thorough and independent assessment of registered project activities against the applicable VCS requirement by the DOE. The verification process shall determine whether the proposed project activity complies with the requirements of latest VCS guidelines, applicability conditions of the selected methodology, relevant host country regulations and guidance issued by the VCS Board.

1.2 Scope and Criteria

The scope of verification is to assess the claims and assumptions made in the VCS monitoring report (MR) against the VCS criteria, including but not limited to, VCS standard, applied methodology and other relevant rules and requirements established for VCS project activities. The Verification is not meant to provide any consulting towards the project participants. However, stated requests for clarification and/or correction actions request may have provided inputs for improvement of the project design.

1.3 Level of Assurance

The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors. Therefore, ESL confirms that the verification is conducted with reasonable level of assurance.

1.4 Summary Description of the Project

The project activity involves distribution and installation of energy efficient ONIL stoves in Mexico to reduce the amount of firewood required by households. There is only one stove model “ONIL Plancha stove” has been distributed for this project activity. The coordinating managing entity of the project activity is C-Quest Capital LLC and Fuego Limpio S.A. (FLSA) is the implementer of the CPA for the current monitoring period. At the time of registration of this PoA under CDM, HELPS International A.C. was the PP as well as the implementer but from March’2017 they have withdrawn from the project and Fuego Limpo S.A. became the implementer. This project was registered as the CPA “ONIL Stoves – Mexico, San Felipe Usila” of the PoA “Distribution of ONIL Stoves – Mexico” under the CDM program.

2 VERIFICATION PROCESS

The registered VCS project is undergoing 1st verification for 2nd crediting period under VCS, the approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1. Method and Criteria

ESL assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the criteria and relevant guidance provided by the VCS Board. The validation/verification process consists of the following three phases.

- A desk review of the VCS Project Design and VCS Monitoring Report
- Remote site visit and follow up interviews with project stakeholders including end users of devices
- The resolution of outstanding issues and issuance of final report and opinion.

2.2. Document Review

The verification is performed primarily as a document review of the registered VCS PD/1/, previous crediting period MRs/23/ and respective Verification reports/2/ and associated documents as stated in detail in appendix 1 of this document. The assessment is performed by a verification team using a protocol. The cross-checks between information provided in the Monitoring report, VCS PD and information from sources other than those used, if available, the team's sectoral or local expertise and, if necessary, independent background investigations.

2.3. Interviews

No site visit was conducted for this verification due to the outbreak of global pandemic (caused by COVID19) and increased risk of exposure and contraction due to travel as elaborated under section 2.4 of this report. Thus, the VVB team could not conduct on-site visit to verify the project implementation. However, alternate means were selected to verify the project implementation. Along with the alternate approach, remote interviews via Skype calling with the end users and PP representatives were conducted to discuss aspects of project implementation such as monitoring plan implemented, the operations of the ICS, survey data, and other details like calibration of the monitoring equipment used during the current monitoring period etc/14/. The required documents and details for the verification of project activity implementation were collected from the team of C-Quest Capital LLC.

The remote site visit /14/ for the project location, by the assessment team, was conducted on 08-11-2021 and 10-11-2021 and the following stakeholders were interviewed.

Sl. No.	Interviewee	Affiliation	Date	Subject	Team Member
1	Vineet Kumar Garg	CQC	08-11-2021 and 10-11-2021	Monitoring Plan ($n_{y,l}$, SS_y , WBT) Project Implementation Monitoring Survey	N Premjit Singh
2	Isabel Alegre	CQC	08-11-2021 and 10-11-2021	Project Implementation	N Premjit Singh
4.	Andrea Santos	Fuego Limpio	08-11-2021 and 10-11-2021	Monitoring Plan ($n_{y,l}$, SS_y , WBT), Monitoring Frequency	N Premjit Singh
5.	Oscar Troncoso Torrez	Fuego Limpio	08-11-2021 and 10-11-2021	Monitoring Plan ($n_{y,l}$, SS_y , WBT), Project Implementation, Location, Technology	N Premjit Singh
6.	Petra Martinez Ruiz	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
7.	Jose Luiz Olivera Diaz	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
8.	Maria Casilda Del Rosario	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
9.	Consuelo Perez Hernandez	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
10.	Ana Ruiz	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh

11.	Paulina Rosy Poot Dzib	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
12.	Victoria Olivera Diaz	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
13.	Carolina Lopez Ramirez	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
14.	Herminia Caamal Pat	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
15.	Eleuteria Velasquez Hernandez	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
16.	Jazmin Merino Benitez	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh
17.	Maria Guadalupe Cahum Chuc	End user	08-11-2021 and 10-11-2021	DOE Remote Survey	N Premjit Singh

The topics covered during the interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording and archiving procedures. The end user of cookstoves was also interviewed to reconfirm the baseline and sample results conducted by PP, as part of acceptance sampling by DOE. The assessment was drawn based on the feedback received during interview coupled with the documentation and remote site observations.

2.4. Site Inspections

During the current verification, on-site visit was not possible due to the outbreak of COVID-19 global pandemic. Verification team avoided the risk of getting infected during the physical onsite assessment. It is important to note that the VCS Program does not explicitly mandate site visits as part of the verification process, however, VVBs must achieve a reasonable level of assurance in verifications (per Section 4.1.2 of the VCS Standard, v4.1). If a VVB can achieve a reasonable level of assurance (as mentioned in section 1.3 of this report) without conducting a site visit, or through a remote site visit, this is in conformance with the VCS rules/14/. Therefore, in this verification, ESL has achieved the reasonable level of assurance by applying the various alternative means as explained below under section 4.1 of this report.

A remote site visit was undertaken by ESL team on 08-11-2021 and 10-11-2021 via Skype to carry out the following;

- a) An assessment of the implementation and operation of the registered project activity as per the registered VCS PD and VCS MR;
- b) A review of information flows for generating, aggregating and reporting the monitoring parameters.
- c) Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD;
- d) A cross check between information provided in the monitoring report and data from other sources such as survey forms, survey result spreadsheets, technical specifications or similar data sources;
- e) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- f) A review of calculations and assumptions made in determining the GHG data and emission reductions;
- g) An 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.
- h) Verification team has remotely checked 11 sampled households via live video calls in line with Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 9 and verified the details of sampled stoves and found that all the stoves were in working condition. Also, interviewed the surveyors to check competencies of monitoring personnel and found to be competent.
- i) all sampled WBT records have been verified and WBT personnel interviewed to confirm their competency and they have followed the latest WBT protocol version 4.3.2 correctly while conducting the WBT survey.

2.5. Resolution of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and remote site assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

CAR (Corrective Action Request) is raised if one of the following occurs:

- Non-compliance with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CLs raised by the Earthood during verification shall be resolved prior to submitting a request for issuance.

FAR (Forward Action Request) is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period. In the course of current verification, a total of 01 Corrective Action request (CAR), 06 Clarification requests (CLs) and 1 Forward Action request (FAR) from the validation of renewal crediting period were raised and successfully closed. All the findings that are raised and communicated to project participant during the verification are included under appendix 4. The section also includes the response, if provided, by the project participants and an assessment by the verification team if it was closed out or otherwise.

2.5.1. Forward Action Requests

The project activity is undergoing 1st verification for 2nd crediting period; there was one FAR raised during the renewal of crediting period to check the duplicate serial number in the stoves installed under the project activity. VVB has checked the serial number of the stoves installed under the project activity with other projects installed in Mexico. VVB did not find any duplicate stove serial number and hence confirmed that the stove serial number installed under this project are unique.

2.6 Eligibility for Validation Activities

Not applicable.

3 VALIDATION FINDINGS

Not applicable.

3.1. Participation under Other GHG Programs

The project has been registered under Clean Development Mechanism (CDM) on 07-12-2012 with reference number PoA 8521 /3/. As verified through the UNFCCC project webpage, crediting period of the Program of Activity (PoA) under CDM is from 07-12-2012 to 06-12-2019. ESL has verified through the project UNFCCC web page/24/ that CERs for the period 01-01-2013 to 31-12-2013 have been already issued under CDM. The current CPA -01 was the only CPA included in this verification which has been verified from the CDM monitoring report version 1.0 dated 16-01-2014/25/. Since the current monitoring period under VCS is considered from 01-01/2021 to 31/10/2021, hence chances of double counting of credits are already ruled out.

This project is also registered under VCS (Project ID-1216) with 10 years crediting period from 01-01-2011 to 31-12-2020/01/ with renewable crediting period and next 10 years crediting from 01-01-2021 to 31-12-2030 already been approved by VERRA. As verified through the records available at VCS registry, VERs for the monitoring period from 01-01-2014 to 31-05-2020 are already issued and for the monitoring period from 01-06-2020 to 31-12-2020 is under submission for issuance with VERRA. The current monitoring period is the 1st monitoring period for the 2nd renewable crediting period (approved on 29-12-2021)

Even though the project has been registered under the CDM and crediting periods under both program (CDM & VCS) overlaps, but credits for the same GHG emission reductions under the VCS and the CDM shall not be claimed. This was confirmed through a declaration/11/ submitted by the PP and hence accepted by the assessment team. It was also confirmed through a declaration submitted/11/ by PP that the project activity has not been submitted under any other GHG or environmental related program for validation or verification.

3.2. Methodology Deviations

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

3.3. Project Description Deviations

There are 3 project deviations mentioned in the MR, which were undertaken and approved during the previous monitoring period. The detailed description of the deviations are as follows

1 - Change in sampling frame from Multi-Stage Sampling to Simple Random Sampling

PP was required to do the multistage sampling as per the CDM registered PoA DD, however it has been observed that the sampling frame has been changed from multi-stage sampling to simple random sampling. The proposed change is prescribed under Standard “Sampling and Survey for CDM project activities and Programme of Activities”/20/. The project is implemented in Mexico and demographically it can be categorized as homogeneous region with reference to cooking habits and climatic conditions and the simple random sampling is suited for the homogeneous population as per the Guidelines for “Sampling and survey for CDM project activities and programmes of activities”/21/. The verification team confirms that the population of Mexico using cookstoves have been categorized as homogeneous and thus the simple random sampling is appropriate for the project. Also, since the simple random sampling is applied, the removal of secondary sampling unit is unlikely to lead to a reduction in the calculation accuracy of emission reduction. This deviation was carried out for the monitoring period from 29-10-2015 to 31-07-2017, from 01-08-2017 to 31-07-2018, from 01-08-2018 to 31-07-2019, from 01-08-2019 to 31-05-2020/2/. This deviation is applicable for the current monitoring period also from 01-01-2021 to 31-10-2021. This changed in sampling approach for the above different monitoring periods for the monitored parameters does not affect the applicability of the methodology, additionality or the appropriateness of the baseline scenario. The verification team has reviewed the sample size calculation from the corresponding Sample calculation spread sheet and found the calculation consistent as per the Guidelines for “Sampling and survey for CDM project activities and Programmes of activities”/21/. The deviation doesn't affect the accuracy or conservativeness of the emission

reduction calculation and therefore has been accepted by the VCS team.

2 - Change in crediting period.

PP has carried out a change in the crediting period. The original crediting period for the project activity as per the registered PD /1/ from 01-01-2010 to 31-12-2012. Project participants requested a deviation to extend this crediting period to 31-12-2020 (ten years, renewable twice, but not extending beyond the CDM total crediting period for this CPA during the monitoring period from 01-01-2014 to 28-10-2015. This deviation was also applicable for the monitoring period 29-10-2015 to 31-07-2017, from 01-08-2017 to 31-07-2018, from 01-08-2018 to 31-07-2019, from 01-08-2019 to 31-05-2020 and for the current monitoring period i.e., from 01-01-2021 to 31-10-2021. As assessed and evident from the previous verification reports /2/ changing is duration of crediting period does not affect the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

3 - Number of stoves included in the project activity:

At the time of registration of the project the number of cook stoves in the project activity was capped to 13,859 Numbers. However, PP has undergone a deviation to increase the number of stoves to 31,178. However, as a result of ongoing regular spot check PP observed some stoves not in working condition and considered 30,869 stoves for ER calculation for current monitoring period. In accordance to 2nd crediting period, the project has been designed to include multiple project activity instances. Project activity instance is defined as the improved cookstove implemented under this project activity. As demonstrated in approved PD from renewal crediting period. For each project activity instance included under the project activity maximum annual energy saving is 0.016 GWh_{th}. Hence, as per VCS standard version 4.1 section 3.5.14 project activity instance does not cross the maximum energy saving capacity limit which is 180 GWh_{th}. The assessment team confirms that the project activity is in compliance with the applied methodology as the small-scale threshold is not surpassed. After this deviation the additionality of the project activity is not affected, and it has been demonstrated as per "Methodological tool: Demonstration of additionality of small-scale project activities version 10.0"/26/.

3.4. Grouped Project

Not applicable. The project activity is not a grouped project.

4 VERIFICATION FINDINGS

4.1. Project Implementation Status

The project installed 3 number of stoves in 2009¹, 4,361 stoves in 2010, 8524 stoves in 2011, 3,833 stoves in 2013, 5,900 stoves in 2014, 4067 stoves in 2015 and 4440 stoves in 2016 and a total of 31,178 stoves installed for this project. The current monitoring period covers 29,495 stoves². As during regular spot checks PP has found out that some stoves were not in working condition and hence excluded them from the ER calculation for this monitoring period. The stoves are made of concrete materials with little metal parts in it. As the broken and lost part of the stove is maintained or replaced and thus the stoves are still working even though the few of them were installed in the 2010. The working condition of the old stove has been verified during the remote site visit and found in the operational condition. To further confirm the operability of these devices which were installed more than 10 years ago, following cross-checks were considered:

- a. Certificate of useful life of the Onil Kitchen Clean Fire: The certificate, which is attested by the manufacturer, confirms that Onil stoves installed under this project have an average life of no less than 10 years and can reach up to 20 years with periodic maintenance and replacement of metal parts after their standard useful life.
- b. Restoration of Onil Stoves: A letter from manufacturer Fuego Limpio confirms that during May 16 and 27, 2019, a number of Onil stoves were restored, thus confirming the maintenance operations of the project.

Thus, performance and durability of the devices was confirmed.

The assessment team has checked during the remote site visit interviewing the end-users and confirmed that project has been implemented as planned and as mentioned in the registered VCS-PD, CDM PoA- DD, CDM CPA-DD from the records available and the survey samples. The assessment team has checked the sample calculation as per the Guideline: “Sampling and Survey for CDM project activities and programme of activities”/21/ and found out that the calculation of confidence/precision is consistent as per the monitoring plan. The assessment team has done the desk review and the remote site visit of the project activity and confirmed that the project has not received any other form of environmental credit for the project. The project activity was implemented as described in the revised

¹ These 3 stoves installed in 2009 could not be monitored because the area where these were installed presents security problems and are therefore inaccessible for monitoring and removed from ER calculation

² The registered stoves of 2011, 2013 2014, 2015 and 2016 which were deployed in the north of Mexico are deemed unsafe to visit due to local safety reason. Hence, these stoves are excluded from the final database for the calculation of emission reduction.

VCS PD/1/ and CDM CPA-DD/4/ and no material discrepancy was identified between the project implementation and the project description. The data and variables provided in the monitoring report are the same as stated in the approved PD/01/. PP has submitted the survey sheet sample and assessed and found that 96 samples were surveyed and found that 95 ICS were in good working condition. Hence, $n_{y,i}$ of $95/96 = 98.96\%$ is considered for ER calculation for this MP.

Only the good condition of ICS found at the time of survey has been considered for ER calculation. Stoves found not in good condition at the time of survey is excluded from the ER calculation. However, it may not necessarily mean that the stove is fully non-operational but could be of minor issue and can be rectified later on. So, they are still in the data base and can be considered in the next survey sampling. Verification team confirms through remote site visit that whether PP had conducted regular spot checks to check the status of project ICS as mentioned in section 2.2 of MR. Further, it was checked and confirmed about the procedure if any stove part is damaged or missing whether PP representatives addressed the concern raised and changing the parts immediately.

Non-working stoves i.e those cannot be used by the user will be excluded for further verification. As a

result of spot check PP has excluded stoves from the ER calculation. Therefore, 29,495 stoves considered for ER calculation.

Total emission reductions achieved under this monitoring period 01-01-2021 to 31-10-2021 (including both days) is 9,424 tCO₂e.

- a) Assessment team concludes the following: There is no material discrepancies between project implementation and the project description provided in the registered PD/01/.
- b) The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analysing the monitored data and parameters) is appropriate.
- c) There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/09/.
- d) The GHG emission reductions or removals generated by the project have not included in another emissions trading program or any other mechanism that includes GHG allowance trading/2//10/.

The project has not received or sought any other form of environmental credit or has become eligible to do so since validation or previous verification/2/. VVB confirms that the project activity is registered as CPA under UNFCCC no, 8521. PP has claimed credits for this project activity from VCS from 01-01-2014 till 31-12-2020 which is confirmed from the previous verification reports of VCS registry. So, the project activity has not participated in any other GHG program for the current monitoring period. Hence, VVB confirms and checked with other registries also and it is evident that the project activity has not

participated or been rejected under other GHG program for the current monitoring period. Hence, VVB confirms and checked with other registries also and it is evident that the project activity has not participated or been rejected under other GHG program for the current monitoring period.

- e) The project is registered under VCS program as well as CDM.
- f) The project activity is complying for sustainable development as discussed under section 1.11 of MR.

In view of the information as verified above the assessment team is able to conclude that the project has been implemented as described in the project description.

4.2. Safeguards

4.2.1. No Net Harm

There is no negative impact to any socio-economic conditions of the region due to the project activity. As per the CDM PoA DD/3/ and CPA-DD/4/, it is confirmed that ONIL stoves presents positive environmental impacts wherever they are applied.

This project activity will not involve any negative environmental or socio-economic impacts, as the project activity involves distribution and installation of the fuel-efficient stoves. Hence no mitigation measures are required.

4.2.2. Local Stakeholder Consultation

Verification team confirms through remote site visit that whether PP had conducted regular spot checks to check the status of project ICS as mentioned in section 2.2 of MR. Further, it was checked and confirmed about the procedure if any stove part is damaged or missing whether PP representatives addressed the concern raised and changing the parts immediately. Non-working stoves are not considered for emission reduction if it is not found in working condition at the time of spot checks. It is confirmed that PP has a robust grievance mechanism and a proper on-going communication with stakeholders and no negative feedbacks are provided during the current monitoring period.

4.3 AFOLU-Specific Safeguards

Not applicable for the project activity. For non-AFOLU projects, this section is not required.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The assessment team has reviewed the monitoring plan and found out that the monitoring of GHG emission reduction from the project activity was implemented in accordance with the registered project document/1/, CDM PoA-DD/3/ and CDM CPA-DD/4/. The monitoring plan has been implemented as

per the applied methodology and all parameters in the monitoring plan had been sufficiently monitored as per the applied methodology and relevant EB decisions.

Data measurement, recording and Sampling Approach; There are several approaches for collecting the data depending on the applied methodology for each step. The PP has followed the following steps:

1. CPA-IMP: User registered stove. Fuego Limpio S.A. field personnel collected the information in the Registration Card from the users. Information was collected via a Registration Card filled by ground staff and partner organizations. Ground staff double-checked the accuracy of the information and requested clarifications if needed. PP has presented details of the registration card to the DOE which has been verified during the remote site visit and found correct are per the requirement.

CPA-IMP: Data logged into database. Fuego Limpio S.A. trained staff inputted the information from the Registration Card into the database. Fuego Limpio S.A. and CQC checked the database records and removed duplicates (this included completing the serial number, checking for name duplicates, etc). The registration card data have been checked from the ER sheet and verified from the database during the remote site visit and found correct.

2. CPA-IMP: Spot-checks (ongoing). Fuego Limpio S.A. visited locations in the field and reported updates to office either via telephone or forms. Fuego Limpio S.A. personnel corrected the database and clearly marked stoves that were not installed, were given away, the end user died or left town, or had any other issues that made the stove no longer eligible to participate in the CPA. These stoves were excluded from the emission reduction calculations. PPs presented the DOE with evidences that spot checks were performed independently from monitoring during monitoring period.
3. Third Parties: Monitoring. Third Parties followed the simple random sampling plan.
4. PP Preparation of monitoring report. CQC prepared the final monitoring report and retained copies of the document.

Step 1,2 and 3 collects the end user information and fill the database and step 4 involves survey to capture data on continuous use of stoves ($n_{y,i,j}$), use of baseline or secondary fires (μ_y) and stove efficiency ($\eta_{new,i,j}$) as described in the below table:

Parameter	Description of Parameter	Sampling approach (outcome in brackets)
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$n_{y,i,j}$	Proportion of ONIL Stoves still in operation	Visual inspection of the premises to see if ONIL stove is operational and in use. Interview with end user if required to verify that ONIL stove is still in use [Yes/No]
μ_y	Adjustment to account for any continued use of pre-project devices	Interview with end user and visual inspection to determine if a baseline (replaced) stove is still being used in addition to ONIL stove [Yes/No]
$\eta_{new,i,j}$	Thermal Efficiency of operational ONIL Stoves	ONIL Stoves were tested using WBTs [ONIL stove thermal efficiency]

PP has taken two different type of sampling surveys. One survey to collect the information of ($n_{y,i,j}$) and (μ_y), another second survey to collect the information of ($\eta_{new,i,j}$).

The sampling has been done as per the monitoring plan which requires confidence/precision of 90/10 for annual monitoring. A simple random sampling has been proposed in place of multi-stage sampling as per the options provided in the Standard: "Sampling and Survey for CDM Project Activities and Programme of Activities version 7.0". The deviation doesn't affect the project design and detailed described in section 3 of this report.

The sample size calculation has been conducted in the corresponding sample calculation spreadsheet. The assessment team has reviewed the revised information and found them consistent as per the Guidelines:" Sampling and survey for CDM project activities and programme of activities/21/. The assessment team has considered the procedure for sampling following the applied methodology AMS-II.G version 12/9/ and the EB guidelines for sampling.

During the remote site visit the assessment team has verified that the project has been implemented as per the registered project document by interviewing a sample of 12 households selected at random from the survey samples.

Data and monitoring parameters

The PP has used ex-ante fixed data and monitored data by the applied methodology. The value used for calculation of GHG emission reductions have been thoroughly checked by the verification team and found appropriate and correct. The input values have been verified from the reliable and authentic sources including monitoring records and applied methodology. The emission reduction calculation verified from the emission reduction spread sheet and found to be correct. The details of the parameters

are provided below-

1- Number of commissioned project devices of type i and batch j, $N_{o,i,j}$

Criteria/Requirements	Assessment/ Observation
Measuring /Reading /Recording frequency	Once at the time of project implementation
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, measuring and reporting frequency is in accordance with monitoring plan/1/ and methodology/9/.
Monitoring equipment	NA
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/ national standards, or as per the manufacturer's specification?	NA
Calibration frequency /interval:	There are no calibration requirements since the value is obtained from installation database.
How were the values in the monitoring report verified?	The value 29,495 stoves was obtained from the database. The database was cross-checked with the previous verifications/2/ and also cross-checked from the records submitted for the monitoring period
If applicable, has the reported data been cross-checked with other available data?	-

Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes
---	-----

2- Proportion of commissioned project devices of type i and batch j ($N_{0,i,j}$) that remain operating in year y (fraction) , $n_{y,i,j}$

Criteria/Requirements	Assessment/ Observation
Measuring /Reading /Recording frequency	Once in every two years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, measuring and reporting frequency is in accordance with monitoring plan/1/ and methodology/9/.
Monitoring equipment	NA
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	NA
Calibration frequency /interval:	NA

How were the values in the monitoring report verified?	The value of this parameter is 98.96% which was previously verified was collected during the monitoring survey. The survey results have been cross checked with the actual data available at the time of remote site visit. Verification team checked 11 samples (inline with Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 9) out of 96 stoves surveyed during remote-onsite visit and found all ICS in working condition, means 100% ICS operating as against 98.96% considered in the MR. However, internal investigations by PP management revealed new information regarding the monitoring surveys which indicated issues with the monitoring practices which could potentially result in the monitoring survey showing higher operability rate than actual in target sampled population. Due to the unreliability of the monitoring survey data, the resulting 98.96% operability rate has now been discarded. As an alternative, the operational stove percentage was determined by assuming 0% usage rate in year 2023, which is the last year after any verification was conducted for the project by a VVB (and continued usage of project devices by at least some proportion of the population was confirmed through VVB assessment). This was followed by application of annual deration to previous years, thus basing the calculation on linear loss rate- indicating an annual drop of 7.14% in usage by population each year, starting from the first year of distribution or the base year when operability is assumed 100%. The database was cross checked with the previous verification /2/ and also cross checked from the records submitted for the monitoring period. Based on this, calculations in the excel file “20250125 VERRA 6.1 LATAM VCS 1216 Mexico Loss rate (Deration) & Usage rate” were reviewed and ERs for following vintages were found to be consistently reported:			
year	Determination of the operational cookstoves based on the distributed year			$n_{y,l}$ of 2021
2021	Stoves of year (vintage)	Registered stoves in database	$n_{y,l}$	4215
	2010	4137	591	
	2011	8508	1216	

		2013	3850	550	
		2014	5429	776	
		2015	3411	487	
		2016	4160	594	
	The number of stoves distributed at the time of that monitoring period and the percentages indicate the operability rate calculated based on linear deration rate and provided for the MP8 in the above table. This is accepted as a conservative approach to calculate usage rate in absence of actual data records The value obtained from these surveys was further cross-checked against the similar projects in the LATAM region across different registries and the average stove operability rate in these projects is found to be significantly higher than the value applied based on annual deration rate/28/. Based on the principle of conservativeness, the lowest value of the parameter obtained from sources discussed above has been accepted.				
If applicable, has the reported data been cross-checked with other available data?	The data has been cross checked with sampling survey questionnaires.				
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes				

Adjustment to account for any continued use of pre-project devices during the year y, μ_y

Criteria/Requirements	Assessment/ Observation
Measuring /Reading /Recording frequency	At least once in every 2 years
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, measuring and reporting frequency is in accordance with monitoring plan/1/ and methodology/9/.

Monitoring equipment	NA
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	NA
Calibration frequency /interval:	NA
How were the values in the monitoring report verified?	96 households were surveyed and 1 baseline was found non-operational (i.e. 1.04%) which has been collected during the same survey for the fraction of $n_{y,j}$ (appliances in operation). The survey results has been cross checked with the actual data available at the time of remote site visit and also cross checked from the filled survey questionnaires.
If applicable, has the reported data been cross-checked with other available data?	-
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes

4. Efficiency of the ICS, $n_{new,i}$

Criteria/Requirements	Assessment/ Observation
Measuring /Reading /Recording frequency	Annually

Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, measuring and reporting frequency is in accordance with monitoring plan/1/ and methodology/9/.
Monitoring equipment	Digital scales Firewood moisture meters Digital thermometers Thermocouple The water Boiling test (WBT) protocol used was the WBT version 4.2.2 published by the Global Alliance for clean Cook stoves.
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Yes
Calibration frequency /interval:	WBT is done by third party. The calibration details of the equipment have been submitted by PP and all the equipment are calibrated for this monitoring period. The calibration details of the equipment are listed in the reference/19/.
How were the values in the monitoring report verified?	The value of the parameter has been taken from the water boiling test implemented over stoves samples of 2010, 2011, 2013, 2014, 2015 and 2016 vintage published by the Global

	Aliance for cook stoves. The value of the parameter- <table border="1"> <thead> <tr> <th>Vintage</th><th>Efficiency</th></tr> </thead> <tbody> <tr> <td>$\eta_{new,2010}$</td><td>23.59%</td></tr> <tr> <td>$\eta_{new,2011}$</td><td>23.65%</td></tr> <tr> <td>$\eta_{new,2013}$</td><td>23.38%</td></tr> <tr> <td>$\eta_{new,2014}$</td><td>23.82%</td></tr> <tr> <td>$\eta_{new,2015}$</td><td>23.80%</td></tr> <tr> <td>$\eta_{new,2016}$</td><td>23.89%</td></tr> </tbody> </table> Has been checked from the WBT test reports/18/ and WBT version 4.2.2 calculation methods by the Grupo Interdisciplinario de Tecnologia Rural Apropiada, A.C. (GIRA).	Vintage	Efficiency	$\eta_{new,2010}$	23.59%	$\eta_{new,2011}$	23.65%	$\eta_{new,2013}$	23.38%	$\eta_{new,2014}$	23.82%	$\eta_{new,2015}$	23.80%	$\eta_{new,2016}$	23.89%
Vintage	Efficiency														
$\eta_{new,2010}$	23.59%														
$\eta_{new,2011}$	23.65%														
$\eta_{new,2013}$	23.38%														
$\eta_{new,2014}$	23.82%														
$\eta_{new,2015}$	23.80%														
$\eta_{new,2016}$	23.89%														
If applicable, has the reported data been cross-checked with other available data?	The reported data was cross-checked during the remote site visit from complete sales database and also for samples which were randomly selected the data was found to be consistent to the surveys and monitored results.														
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes														

5. Fraction of project's monitoring period the stove is in operation (weeks in operation/total weeks in monitoring period), $t_{y,j}$

Criteria/Requirements	Assessment/ Observation
Measuring /Reading /Recording frequency	Continuous
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, measuring and reporting frequency is in accordance with monitoring plan/1/ and methodology/9/.
Monitoring equipment	NA

Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	NA
Calibration frequency/Interval:	There are no calibration requirements since the value is obtained from physical surveys (to calculate the drop-off rate).
How were the values in the monitoring report verified?	The value of the parameter is 1.00 (average). The data has been calculated from the days in operation during monitoring period divided by total number of days in monitoring period. The data has been verified from the database to ensure installation dates.
If applicable, has the reported data been cross-checked with other available data?	The reported data was cross-checked from complete sales database.
Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes

Ex-ante Parameters-

Ex-Ante Parameter	Assessment
Quantity of Biomass used in the absence of the project activity (per appliance); $B_{old,i,j}$; Tonnes per annum	The value was calculated to be 6.597 tonnes/annum. This parameter has been determined during the baseline study done at the time of validation by conducting a kitchen

	performance test. The value is consistent with the PDD/1/, MR/6/ and the ER sheet /7/
Efficiency of the system being replaced; η_{old} ; Fraction	The value of the parameter is 0.10 which is given in the para 6 of the applied methodology/9/. The value is consistent with the MR/6/ and ER sheet/7/
Fraction of non-renewable biomass saved by the project activity; $f_{NRB,y}$; fraction	The value of this ex-ante parameter is 0.70. This value has been applied from the methodology/9/ and for biomass savings to be calculated, the portion of biomass used that is renewable must be accounted for based on the methodology. The parameter is determined by C4 EcoSolutions (Pty) Ltd as third party to derive the f_{NRB} value for Mexico. NRB is $B_{old,Mexico}$ (excluding fuel wood used in baseline stoves) minus the DRB component (excluding trees that did not survive). Then, $f_{NRB} = NRB/(NRB + DRB)$ The value is consistent with the MR/6/ and ER sheet/7/
Net calorific value of non-renewable biomass that is substituted; $NCV_{biomass}$; TJ/t	The value of this ex-ante parameter is 0.0156 TJ/tonne. This value has been fixed at the time of validation and applied from IPCC default value of the methodology/9/. The value is consistent with the MR/6/ and ER sheet /7/.
Emission factor for the substitution of non-renewable biomass by similar consumers, $EF_{projected\_fossilfuel}$, tCO ₂ /TJ	The value of this parameter is 68.6 t CO ₂ /TJ. This value has been fixed at the time of validation and applied from default value of the methodology/9/. The value is consistent with the MR/6/ and ER sheet /7/.

¹ FAO, *Evaluacion de los Recursos Forestales Mundiales, Informe Nacional, 2010, Mexico*, World Forest Resources Assessment, National Report, 2010, Mexico. www.fao.org/forestry/fra/67090/en/mex/; Data on reforested hectares on Page 38, data on average tree density and percentage of each on Page 43

Emission reduction:

The methodology does not calculate baseline and project emission separately.

Instead, the methodology calculates emission reduction using the following

equations:

$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{o,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\_fossil\ fuel}$$

According to footnote 20 under para 50 (c) of the applied methodology, “the methodology allow the use of a net to gross adjustment factor of 0.95 in lieu of conducting a survey to account for leakage emissions”.

$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{o,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\_fossil\ fuel} \times 0.95$$

Where:

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

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

$f_{NRB,y}$ Fraction of woody biomass saved by the project activity in year *y* that can be established as non-renewable biomass (0.70)

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

$EF_{projected\_fossilfuel}$ Emission factor for the substitution of non-renewable woody biomass by similar consumers. Use a value of 68.6 tCO₂/TJ

$N_{o,i,j}$ Number of project devices of type *i* and batch *j* commissioned (number)

$n_{y,i,j}$ Proportion of commissioned project devices of type *i* and batch *j* ($N_{o,i,j}$) that remain operating in year *y* (fraction)

μ_y Adjustment to account for any continued use of pre-project devices during the year *y*

0.95 net to gross adjustment factor to account for leakage

To calculate $B_{y,savings,i,j}$, PP has opted para 32 Option 3 equation 7 of applied methodology AMS II.G

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

Where:

$B_{old,i,j}$	Annual quantity of woody biomass that would have been used in the absence of the project activity to generate thermal energy equivalent to that provided by the project device type i and batch j (tonnes/year)
$\eta_{old,i,j}$	Efficiency of the old devices being replaced by project devices of type i and batch j (fraction). A default value of 0.10 may be optionally used if the replaced system is three-stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney.

Here, $\eta_{new,i,j}$ Efficiency of the project device i and batch j (fraction), as determined using the Water Boiling Test (WBT) protocol.

$$\eta_{old} = 0.10$$

$$\eta_{new,2010} = 0.2359$$

$$\eta_{new,2011} = 0.2365$$

$$\eta_{new,2013} = 0.2338$$

$$\eta_{new,2014} = 0.2382$$

$$\eta_{new,2015} = 0.2380$$

$$\eta_{new,2016} = 0.2389$$

$$B_{old,i,j} = 6.597$$

$$\text{Operating days} = 304 \text{ (from 01-January-2021 to 31-October-2021)} \quad B_{ysaving,2010} =$$

$$6.597 * (1 - 0.10 / 0.2359) * (307 / 365)$$

$$= 3.17 \text{ tonnes}$$

Similarly

$$B_{ysaving,2011} = 3.17$$

$$B_{ysaving,2013} = 3.14$$

$$B_{ysaving,2014} = 3.19$$

$$B_{ysaving,2015} = 3.19$$

$$B_{ysaving,2016} = 3.19$$

Therefore

$$ER_{2010} = 3.17 * 4,137 * 0.9896 * 0.9896 * 0.70 * 0.0156 * 68.6 * 0.95$$

= 9,126.28 tCO₂

Similarly

ER₂₀₁₁ = 18,803.81

ER₂₀₁₃ = 8,437.02

ER₂₀₁₄ = 13,061.31

ER₂₀₁₅ = 9,019.01

ER₂₀₁₆ = 9,869.63

Total ER in 2021 = 68,317.07

= 68,317 (round down)

The assessment team checked the formula and calculation used for baseline calculation in the MR and ER sheet and found that it is in compliance with the approved VCS project document/1/. And the appropriate methods and formulae for calculating emission reduction have been followed and assumptions and emissions factors correctly applied.

Project Emissions

Not applicable.

Leakage

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

PP has provided the spreadsheet used for calculation and assessment is in confidence that the quantified value in the ER sheet is in accordance with the project description and applied methodology and consistent with the evidence provided.

Quality of Evidence to Determine GHG Emission Reductions and Removals

The assessment team can confirm that the calculation is based on the authentic data. The quality of supporting documents submitted for verification are adequate. The assessment team has checked the quality and maintenance of the supporting documents during the remote site visit to confirm the authenticity of the documents and to check the appropriate calculations. The assessment team confirms that the proper evidence is available for the whole monitoring period and the same is verifiable and the data collection system meets the requirement of the monitoring plan and the applied methodology according to the assessment carried out.

The assessment team confirms the quality of evidence to determine the GHG reductions is satisfactory and the detailed information regarding the roles and responsibilities have been provided in the monitoring report.

a. Non-Permanence Risk Analysis

Not applicable for the project activity.

5. VERIFICATION CONCLUSION

Earthood Services Limited (ESL), contracted by C-Quest Capital LLC, has performed the independent verification of the emission reductions for the VCS project activity (VCS ID- 1216) “Distribution of ONIL Stoves – Mexico, San Felipe Usila 1” in Mexico for the monitoring period 01-01- 2021 to 31-10-2021 as reported in the Monitoring Report Version 3.2 dated 27-01-2025. The C-Quest Capital LLC is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity. Earthood commenced the verification based on the baseline and monitoring methodology AMS.II.G. version 12, the monitoring plan contained in the registered VCS PD Version 3.0 and VCS guidelines version 04, Monitoring Report Version 3.2 dated 27-01-2025 as per the process described under Section 2 of this report.

ESL verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESL planned and performed the verification by obtaining evidence and other information and explanations that ESL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity for the period 01-01-2021 to 31-10-2021 are fairly stated in Monitoring Report Version 3.2 dated 27-01-2025.

The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology AMS.II.G., Version 12, and the VCS standard, version 4.1.

Verification period: From 01-01-2021 to 31-10-2021(including both days).

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)

2021 (from 01-January- to 31-October-2021)	9,424	0	0	9,424
Total	9,424	0	0	9,424

Approved by



Dr. Kaviraj Singh

CEO
Earthood Services Limited

Date: 17-03-2025
Place: Gurugram, Haryana

APPENDIX 1: REFERENCES

S.No	Title of Document	Version	Date
1.	Revised VCS PD	-	08-11-2021
2.	VCS Verification Reports (For the previous monitoring periods) https://registry.terra.org/app/projectDetail/VCS/1216		Last accessed on 11-04-2022
3.	CDM 8521 PoA-DD	Version 15	23-11-2012
4.	CDM CPA- 01 "Distribution of ONIL stoves- Mexico, San Felipe Usila 1" CPA-DD	Version 15	23-11-2012
5.	VCS Monitoring Report (Draft)	Version 01	01-09-2021
6.	VCS Monitoring Report (Final)	3.2	27/01/2025
7.	ER spread sheet (corresponding to the final monitoring report)	-	27/01/2025
8.	CDM Monitoring report PoA 8521	Version 1	16-01-2014
9.	AMS.II.G.- Energy efficiency measures in thermal applications of non-renewable biomass	Version 12	-
10.	VCS webpage for the project, VCS ID 1216; https://www.vcsprojectdatabase.org/#/project_details/1216	-	Last accessed on 29-10-2021
11.	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period	-	20-07-2021
12.	VCS Standard	Version 4.1	22-04-2021
13.	VCS Program Guide	Version 4.0	19-09-2019
14.	Remote site assessment –interviews of staff personnel, video recording	-	08-11-2021 and 10-11-2021
15.	ONIL stove registration data	-	04-04-2010
16.	Training records	-	-
17.	Operational ONIL stoves data	-	-
18.	WBT test results	-	-
19.	WBT measuring equipment Calibration certificates- 1- Weighing scale 2- Moisture meter	-	-
20.	Standard: Sampling and survey for CDM project activities and programmes of activities	Version 7.0	-
21.	Guidelines for Sampling and survey for CDM project activities and programme of activities	Version 4.0	-
22.	CQC- Fuego Service Agreement for WBT		30-08-2017
23.	Previous VCS monitoring report (For the previous monitoring period 01-06-2020 to 31-12-2020)		22-11-2021
24.	CDM UNFCCC webpage for the project, UNFCCC reference no. 8521; https://cdm.unfccc.int/ProgrammeOfActivities/poadb/2BH1T0SFERD67JCZXAIWMKLO8PN5UQ/view/	-	-
25.	Previous CDM monitoring report (For the monitoring period 01/01/2013 to 31/12/2013)	Version 1.0	16-01-2014
26.	"Methodological tool: Demonstration of additionality of small-scale project activities"	version 10.0	

27.	Deration rate calculations: "20250125 VERRA 6.1 LATAM VCS 1216 Mexico Loss rate (Deration) & Usage rate"	-	25/01/2025
28.	Secondary data: other projects in the host country: "44.03.05 Stoves in Operation - Verified Secondary Data (2024-08-05)"		05/08/2024
29.	Certificate of useful life of the Onil Kitchen Clean Fire by manufacturer (Fuego Limpio)	-	23/10/2021
30.	Letter by manufacturer (Fuego Limpio): Restoration of Onil Stoves	-	13/10/2021

APPENDIX 2: COMPETENCY STATEMENT

Competence Statement			
Name	N Premjit Singh		
Education	B.Tech in Mechanical Engineering M.Tech in Energy Technology		
Experience	9+ Years		
Field	Climate Change, Energy		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS I.D		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.2)		
Reviewed by	Deepika Mahala (Quality Manager)	Date	19/08/2021
Approved by	Ashok Gautam (Technical Manager)	Date	25/08/2021

Competence Statement	
Name	Harsh Raval
Education	Bachelor of Engineering in Chemical Engineering Masters of Science in Environmental and Energy Engineering
Experience	15 Years
Field	Climate Change, Environment and Waste Management
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES

Methodology Expert	-		
Local expert	YES (INDIA)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
Reviewed by	Deepika Mahala (Quality Manager)	Date	08/12/2021
Approved by	Ashok Gautam (Technical Manager)	Date	08/12/2021

Competence Statement	
Name	Ricardo Lopes
Country	Brazil
Education	Technical Diploma in Data Processing
Experience	12 years
Field	CDM, Energy, Environment
Approved Roles	
Team Leader	Yes
Validator	Yes
Verifier	Yes
Methodology Expert	Yes (ACM0001, ACM0002, AM0026, AMS ID, AMS III.H, AMS III.F)
Local expert	Brazil, Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Uruguay
Financial Expert	Yes
Technical Reviewer	No
TA Expert	Yes (1.2, 13.1)

Reviewed by	Shreya Garg	Date	04/06/2019
Approved by	Anshika Gupta	Date	04/06/2019

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	6 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

Competence Statement	
Name	Vaishali Vatsa
Education	M.Sc. (Environmental Studies and Resource Management), TERI University
Experience	4 months

Field		Climate Change	
Approved Roles			
Team Leader	NO		
Validator	Yes		
Verifier	Yes		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	NO		
Reviewed by	Shreya Garg	Date	30/12/2019
Approved by	Anshika Gupta	Date	02/01/2020

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	Date	18/02/2022
Approved by	Ashok Gautam	Date	18/02/2022

Competence Statement			
Name	Sukanya Phukan		
Education	M.Sc (Environmental Science and Technology) B.Sc (Zoology)		
Experience	1+ year		
Field	Environment Science		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (VM TA 1.2, 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	23/06/2023
Approved by	Deepika Mahala (Technical Manager)	Date	23/06/2023

APPENDIX 3: ABBREVIATIONS

Abbreviations	Full texts
BEF	Baseline Emission Factor
CO2	Carbon dioxide
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CMS	Central Monitoring System
CL	Clarification Request
CMP	Conference of Parties Serving as Meeting of Parties
CAR	Corrective Action Request
EB	Executive Board
FAR	Forward Action Request
GHG	Green House Gas
MR	Monitoring Report
O&M	Operation and Maintenance
PD	Project Description
PP	Project Proponent
QA/QC	Quality Assurance and Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VCS PD	VCS Project Description
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VCUs	Verified Carbon Units

APPENDIX 4: FINDINGS OVERVIEW

CAR: Corrective Action Request

CL: Clarification Request

FAR: Forward Action Request

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	01	Section no.	NA	Date : 15--11-2021
Description of FAR				
The validation report for the renewable crediting period has raised the following FAR. “The project proponent mentions in Section 1.15.1 that Project 1216 is also registered as a CPA under CDM PoA 8521 as CPA 8521-P1-0001-CP1. It was also observed that CDM PoA 8521 consists of two other CPAs (CPA 8521-P1-0002-CP1 and CPA 8521-P1-0003-CP1). The verifying VVB is requested to double check that no ICS using the unique identification number of this project are calming ERs in others or vice versa”.				
Project participant response				Date : 05-12-2021

Each household has been assigned a unique stove serial number in the database. Furthermore, CQC has submitted a declaration that each stove in the project activity stating “all the stoves included under VCS project 1216 are not included under any CDM project activity or any project activity under GHG mechanism”.

Documentation provided by project participant

Database with the unique serial and declaration document by the PP on the unique serial number of each stove.

DOE assessment

Date: 22-12-2021

The database submitted by the PP and ER calculation spreadsheets have been reviewed by the verification team against stove serial numbers. Furthermore, it has verified with the cookstove projects registered in other GHG programs such as CDM (UNFCCC Ref. no. CPA 8521-P1-0002-CP1 and CPA 8521-P1-0003-CP1) and VCS no.1803. It is evident and confirmed that there are no duplicate serial numbers in the database of current project activity. Hence, FAR 01 stands closed.

Table 2. CL from this verification

CL ID	01	Section no.	1.1	Date : 29-10-2021
Description of CL				
- As per section 1.1 of monitoring report, kindly provide evidence of first and last stove installed for this project. - And as per section 1.10 of monitoring report, PP shall provide declaration for no double counting claim to any GHG program for the same monitoring period.				
Documentation provided by project participant				Date : 10-11-2021
- Stove registration documents of the first and last stoves installed under the project activity have been submitted to VVB - Self-declaration letter has been submitted to VVB for further verification.				
DOE assessment				Date: 15-11-2021
The submitted documents are checked and verified and found to be OK. CL 01 is closed.				

CL ID	02	Section no.	3.16.3	Date : 29-10-2021
Description of CL				

As per the VCS Standard V4.1, Section 3.16.3, the project proponent shall establish mechanisms for ongoing communication with local stakeholders to allow stakeholders to raise concerns about potential negative impacts during project implementation.

PP is requested to clarify how the section 2.2 of monitoring report complies with VCS standard V4.1 requirements pertaining to the ongoing communication with local stakeholders.

Project participant response	Date : 10-11-2021
Ongoing communication with the local stakeholders is maintained throughout the project cycle. PP conducts the regular spot-checks as described under section 4.3 of the monitoring report. Evidence related to ongoing spot checks have been provided to VVB. As a result of continuous communication with the stakeholders, PP observed some of the ICS not in good working condition and repaired the same. Evidence related to the replacement of the stoves parts have been submitted to VVB.	
Documentation provided by project participant	
MR	
DOE assessment	Date: 15-11-2021
The justification provided by the PP is cross-checked with the end users at the time of remote site visit by the verification team. Also, the documents provided by the PP related to the replacement of stoves parts are also checked. Thus, CL 02 is closed.	

CL ID	03	Section no.	3.1	Date : 29-10-2021
Description of CL				
As per section 3.1 of monitoring report, PP is requested to provide evidence on the installation and any change in parts when not in working condition.				
Project participant response				Date : 10-11-2021
Evidence related to the replacement of the stove parts have been submitted to VVB.				
Documentation provided by project participant				
Documentation as evidence related to the replacement of the stove parts.				
DOE assessment				Date: 15-11-2021
The documents provided by the PP related to the replacement of stoves parts are checked and found OK. Thus, CL 03 is closed.				

CL ID	04	Section no.		Date : 29-10-2021
Description of CL				

In section 4.1 of monitoring report, PP is requested to submit the following documents:

- Evidence for values applied for $B_{old\_i,j}$, $f_{nrb,y}$.

Also, clarification is requested on the credentials of $B_{old\_i,j}$ value after renewable of crediting period.

Project participant response

Date : 10-11-2021

Related documents have been submitted to VVB for further review

Documentation provided by project participant

Calculation spreadsheet and Third party report from C4 EcoSolutions (Pty) Ltd.

DOE assessment

Date: 15-11-2021

The documents provided by the PP like the Calculation spreadsheet, and third party report are verified for the values applied for Bold_{ij} , $f_{nr,y}$ and found OK. Thus, CL 04 is closed.

CL ID	05	Section no.	4.2	Date : 29-10-2021
Description of CL				
In section 4.2 of monitoring report, PP is requested to submit the following documents:				
- Survey forms and survey result spreadsheets for parameters $n_{y,i}$, μ_y, $n_{new,i}$ - Technical specifications and calibration/testing of equipments.				
Project participant response				Date : 10-11-2021
Scanned copies of the survey forms, user manuals and calibration certificates of the equipment used have been submitted to VVB				
Documentation provided by project participant				
Scanned copies of the survey forms, user manuals and calibration certificates.				
DOE assessment				Date: 15-11-2021
- The documents provided by the PP like the monitoring surveys, scanned copies of the survey forms and forms filled at the time of WBT are assessed and verified on the values of $n_{y,i}$, μ_y, $n_{new,i}$. It is evident that PP has adopted simple random approach and survey was conducted based on the same. The survey and WBT were conducted during 31-03-2021 to 22-05-2021 and they are found to be in line with the current monitoring period. Hence, it is appropriate and acceptable. - User manuals and calibration certificates are checked and found that monitoring equipment are calibrated in line with the calibration frequency and found OK.				
Thus, CL 05 is closed.				

CL ID	06	Section no.	4.3	Date : 29-10-2021
Description of CL				
In section 4.3 of monitoring report, PP is requested to submit the following documents:				
- Sampling analysis sheet or related for the parameters mentioned. - Evidence on the precision achievements for the given monitored parameters.				
Project participant response				Date : 10-11-2021
Sampling analysis sheet as well as sheet evidencing the precision achievement have been submitted to VVB				
Documentation provided by project participant				

Sampling analysis sheet and the documents related to the precision of the achievements of the monitored parameters.	
DOE assessment	Date: 15-11-2021
The sampling analysis sheet provided by the PP has been checked. PP has applied simple random sampling correctly and evident that the selected samples are identified randomly using appropriate and a valid statistical tool. Precision achieved by the samples are within the acceptable range as evident from the documents submitted. Also, verification team has cross-checked the sample results through filled questionnaires and data sheets and also virtually visited 11 number of sampled stoves during remote on-site visit in line with Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 9 and found that all ICS were working. Thus, CL 06 is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	1.8	Date : 29-10-2021
Description of CAR				
In Section 1.8 of monitoring report, information on the tool used for the determination of fNRB is not provided.				
Project participant response				Date : 10-11-2021
Reference of the tool 30, version 3 used for the determination of fNRB has been mentioned under section 1.8 of the revised MR.				
Documentation provided by project participant				
MR				
DOE assessment				Date: 15-11-2021
The revised MR is checked and found that the information on the tool used for the determination of fNRB is now provided. Thus, the CAR 01 stands closed.				