INSTALLATION OF HIGH EFFICIENT COOK STOVES BY EKI ENERGY SERVICES LIMITED

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Project Title	Installation of High Efficient Cook Stoves by EKI Energy Services Limited
Report Title	Installation of High Efficient Cook Stoves by EKI Energy Services Limited
Version	02
Report ID	TQC_55822
Verification Period	01-January-2022 to 31-December-2022 (both days included)
Client	EKI Energy Services Ltd.
Pages	36
Date of Issue	14-April-2023

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Summary:

LGAI Technological Center (hereinafter referred to as Applus+ Certification) was contracted by M/s EKI Energy Services Limited to conduct verification of the project "Installation of High Efficient Cook Stoves by EKI Energy Services Limited", "VCS Project ID 2664 against VCS standard version 4.4/7(b)/

The objective of the verification work is to comply with the requirements of Verified Carbon Standards requirements and ensure that the project activity has been implemented and operated as per the registered joint PD&MR/1/, and that all physical features (technology, project equipment, and monitoring equipment of the project are in place. The monitoring methodology is used in accordance with the VCS methodology VMR006 "Methodology for Installation of High Efficiency Firewood Cookstoves", Version 1.1 /6/ of the methodology. A site visit was performed to confirm the information provide by PP/9/.

The project involves distribution of fuel-efficient Improved cook stoves (ICS) to replace the baseline traditional cook stoves in households. The ICS to be deployed under this project is energy efficient which substantially reduces fuel consumption and emissions for conducting cooking and water heating tasks in homes. By substituting traditional cooking stoves with ICS, family members-particularly women- were exposed to less indoor air pollution, saving money on health-related expenses.

The boundary of the grouped project is *geographical* boundaries of Indian states of Assam in Udalguri district and there are 35,045 project activity instances and the first Instance was implemented on 15-February-2020.

The first crediting period's expected annual average emission reductions over a seven-year period are 211,856 tCO_2e /year with 1,482,989 tCO_2e in total emission reduction during the course of the seven-year crediting period. 215,035 tCO_2e in total GHG emissions were reduced over the second monitoring period from 01-January-2022 to 31-December-2022 (both days included).

Applus+ certification now has enough proof to confirm that the stated criteria have been met after reviewing the monitoring report, emission reduction sheets and additional documents pertaining to monitoring methodology, as well as after conducting background research, conducting follow-up interviews and speaking with stakeholders/9/ and no uncertainties are involved.

Reviewing the monitoring report/2/ for the monitoring results and confirming that the monitoring methodology was applied in accordance with the monitoring plan and monitoring parameters which are the main goals of the verification. After reviewing the ER sheet, it was confirmed that the reductions due to the anthropogenic emissions by sources are sufficient, conclusive, and presented in a clear and understandable way. In order to establish that the project has been implemented in line with design and conservative assumptions, as specified, the monitoring plan, registered Joint VCS PD & MR/1/, MR/2/, ER sheet/2/, and the project's compliance with relevant VCS, UNFCCC, and host party criteria were specifically checked/7//12/.

Verification of project implementation and operation with regard to the registered VCS Joint PD & MR/1/, implemented monitoring plan with the MR/2/, and applied baseline & monitoring methodology were all included in the scope of the verification. It was also verified that the actual monitoring systems and procedures are adhered to, as per the monitoring systems and procedures outlined in the monitoring plan. Identification of any substantial inaccuracies in the stated GHG emission reduction estimations and articulating a conclusion with a fair degree of assurance was part of the assessment.

It is confirmed by the assessment team that the stated GHG emission data is appropriately supported by evidence.

This verification has been carried out using a risk-based methodology. 07 Corrective Action Requests (CARs) and 01 Clarification Requests (CRs) were raised during verification and successfully closed. FAR was not raised during this verification period.

The project has been successfully verified, and further certified for emission reductions under VCS as it meets the criteria outlined by the MR template version 4.1, the VCS Standard version 4.4, and the applied methodology VMR0006, Version 1.1.

Our view refers to the projects' claimed GHG emissions, GHG emission reductions as a result, and to the project's legitimate baseline, monitoring, and supporting documents. Based on the information viewed and assessed, we confirm that the project activity " Installation of High Efficient Cook Stoves by EKI Energy Services Limited" achieved emission reductions by 215,035 tCO_2e from 01-January-2022 to 31-December-2022 (both days included).

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1. INTRODUCTION

1.1 Objective

Applus+ Certification has been contracted by M/s EKI Energy Services Ltd., (project proponent), to undertake the verification of the energy efficiency of improved cookstove project titled "Installation of High Efficient Cook Stoves by EKI Energy Services Limited". The assessment team have reviewed the GHG data collected for the monitoring period from 01-January-2022 to 31-December-2022 (both days included) covered in this verification. The objective of the verification is to have an independent third-party assessment of the MR/2/ and supporting documentation to ensure compliance with the rules, regulations and guidelines by CDM and VCS requirements. In particular;

- The project's baseline is assessed against "VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, Version 1.1"/6/
- The projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS standard version 4.4 /7/
- CDM project standard for project activities Version 03.0/12/
- VCS standard v4.4 /7/
- VCS guideline v4.3 /7/

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 verified carbon units (VCUs).

1.2 Scope and Criteria

The scope of the verification was the independent and objective review and ex-post determination of the monitored reductions in GHG emissions from "Installation of High Efficient Cook Stoves by EKI Energy Services Limited". The verification of this project was based on the monitoring report and supporting documents submitted by the project proponent to the verification team. The documents were reviewed against the following guidance and protocols:

- VCS Program Guide (v4.3)/7/
- VCS Standard (v4.4)/7/
- VCS Program Definitions (v4.3)/7/
- VCS Registration & Issuance Process (v4.3)/7/
- VCS approved methodology VMR0006 (version 1.1)/6/

The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design. The

verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. There are no material errors, overestimation of ER, omission or misstatement

1.3 Level of Assurance

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

1.4 Summary Description of the Project

The main purpose of the project is to distribute fuel-efficient improved cook stoves (ICS) in Assam state of India. The ICS disseminated through this project has replaced the old low efficient baseline cook stoves.

Through this project, the distribution and installation of ICS have undertaken for households and communities/non-household. Under this project, high thermal efficient cook stoves were distributed. The ICS burns wood more efficiently thereby improving thermal transfer to pots, hence saving fuel and greenhouse gases. Not only does this halt the rapidly progressing deforestation but also reduces health hazards from indoor smoke pollution and women and children have to spend less time collecting firewood.

As the target populations were unable to afford these stoves (ICS), project promoters had distributed ICS free of cost. The end users were informed in advance[8] that the use of ICS generates carbon finance which in turn is used to cover the price of ICS and for recovering project implementation costs.
PP has considered each cookstove as a separate instance. Date of commissioning of each instance is monitored and mentioned in the project databased which can be crosschecked with the help of the end user agreements. Same has been verified and found correct by the assessment team.

Till date, the project activity instances distributed under this grouped project are in Assam state of India and details are provided in Section 1.7 of this document.

The ICS substitutes the currently common cooking on open fire. The baseline scenario is the continued use of non-renewable biomass (fire wood) by the target population to meet similar thermal energy needs as provided by project cookstoves in absence of project activity.

Under this project activity. total 35,045 ICS have been installed till the end of current monitoring period i.e., 31-December 2022. The project through conservation of non-renewable biomass results in greenhouse gas emission reduction. The emission reductions achieved in this monitoring period are 215,035 tCO_2e.

2. VERIFICATION PROCESS

2.1 Method and Criteria

The procedures used by Applus+ Certification for verification were carried out in accordance with the requirements stated in the VCS standard requirements, the most recent version of the CDM VVS, and pertinent decisions of the COP/MOP and the CDM EB while using standard auditing techniques.

Based on the provisions of CDM Standard: Sampling and surveys for CDM project activities and programmes of activities, version 9.0/12/, VVB has undertaken the following sampling plan with respect to the above project.

Para 30 and 31 of the standard/23/ states:

30. In order to determine the sample size, the DOE should specify in advance, using its own professional judgement:

(a) **Acceptable quality level (AQL) or the level of assurance**, that is the proportion of acceptable discrepancies between the project participants' or the coordinating/managing entity's sample records and the DOE sample records (i.e. DOE field/on-site inspection results) (e.g. 1 per cent);
(b) **Unacceptable quality level (UQL),** that is the proportion of unacceptable discrepancies between the project participants' or the coordinating/managing entity's sample records and the DOE sample records, e.g. 20 per cent.

In order to select a random sample from the PP Based on the AQL of 0.5%, the UQL of 15%, and the producer's and consumer's risk both at 10% were selected

The maximum errors associated with the determination indicated in paragraph 30 above should remain at levels indicated below:

(a) A 10 per cent chance that the DOE will wrongly reject the project participants' or the coordinating/managing entity's records (i.e. reject a set of records of acceptable quality);

(b) A 10 per cent chance that the DOE will wrongly accept the project participants' or the coordinating/managing entity's records (i.e. accept a set of records which is unacceptable).
Using provisions under paragraphs 30 and 31 above, the DOE have determined:

(a) n: the size of the sample i.e.: 15
(b) c: the acceptance number i.e.: 0

Based on the above allowance given by the standard, VVB selected 15 randomised households for acceptance surveying. The households were chosen from the 125 households already surveyed/10/ by

the PP. The choice of 15 household samples is allowed with 0 acceptance number. Since this is an acceptance sampling, no oversampling was attempted by VVB, as it would go against the sampling guidance.

The table from the standard is provided below and the AQL, UQL, producer and consumer risk is highlighted for the present project activity decided by the VVB.

Producer Risk			**5%**	**5%**		**5%**		**5%**	
Consumer Risk			**5%**	**10%**		**15%**		**20%**	
AQL	**UQL**	**Sample Sie (n)**	**Acceptance Number (c)**	**Sample Size (n)**	**Acceptance Number (c)**	**Sample Sie (n)**	**Acceptance Number (c)**	**Sample Size (n)**	**Acceptance Number (c)**
0.5%	10%	46	1	38	1	33	1	29	1
0.5%	15%	30	1	25	1	22	1	10	0
0.5%	20%	22	1	18	1	9	0	8	0
1.0%	10%	61	2	52	2	33	1	29	1
1.0%	15%	30	1	25	1	22	1	19	1
1.0%	20%	22	1	18	1	16	1	14	1
Producer Risk			**10%**	**10%**		**10%**		**10%**	
Consumer Risk			**5%**	**10%**		**15%**		**20%**	
AQL	**UQL**	**Sample Sie (n)**	**Acceptance Number (c)**	**Sample Sie (n)**	**Acceptance Number (c)**	**Sample Sie (n)**	**Acceptance Number (c)**	**Sample Sie (n)**	**Acceptance Number (c)**
0.5%	10%	46	1	38	1	19	0	16	0
0.5%	15%	19	0	15	0	12	0	10	0
0.5%	20%	14	0	11	0	9	0	8	0
1.0%	10%	46	1	38	1	33	1	29	1
1.0%	15%	30	1	25	1	22	1	10	0
1.0%	**20%**	22	1	18	1	9	0	**8**	**0**

The identified beneficiaries based on the above criteria chosen randomly from the beneficiary database is as follows

Sl. No.	**Stove ID/Unique Number**	**Household Head Name**	**Village Name**
1	112580	Kanchan Rabha	Uttar Jangalpara
2	121395	Swmsri Boro	Doragachuba
3	119427	Rohit Rabidas	Suklai

Sl. No.	Stove ID/Unique Number	Household Head Name	Village Name
4	114716	Bimal Rabha	Barakhat
5	104088	Rima Boro	No. 1 Bamunjuli
6	108814	Jaumaishri Boro	Babarikhat
7	122203	Mathila Toppo	Bamunjuli
8	122309	Rina Choudhari	Dhoronikhat
9	114366	Anjali Das	Dakhin Jangalpara
10	108714	Sibbani Ramchiary	Parbahuchuba
11	110923	Debajani Baruah	Uttar Jangalpara
12	119222	Ramamaya Mijar	Uttar Naobandha
13	112237	Fulabara Bhuihar	Bamunjuli T.E
14	108306	Anjali Rabha	Dongpara
15	113308	Ranju Mochahary	Duliya PARA

The intended implementation and operation of the project activity, as well as the actions done to report emission reductions, must be evaluated and decided to conform with the criteria and pertinent instructions issued by the VCS Board. The following three steps make up the verification procedure;

- A documentation review of the MR, ER sheet and sampling sheet.
- Conduct meeting with and subsequent interviews with project stakeholders.
- The completion of outstanding issues and the issuance of the final report and opinion.

2.2 Document Review

As described in detail in appendix 1 of this document, the verification is largely carried out as a document review of the registered VCS joint PD&MR, submitted MR and ER sheet and related evidences. Using a Applus+ quality procedures, the verification team conducted the evaluation. Cross-referencing data from MR with data from additional sources, if available, the team's sectoral or local knowledge, and, if necessary, independent background checks.

2.3 Interviews

The evaluation team has conducted an on-site verification on 12-January-2023 and on 13-January-2023. PP representatives and users were questioned. The table includes information on the interviewees.

S N	Name	Organization
1	Shiv Shankar	EKI Energy Services Limited (Local co-ordinator)
2	Vineet Kumar Garg	EKI Energy Services Limited (General Manager)
3	Monil Shrivastava	EKI Energy Services Limited (Senior Executive)
4	Bibek Baroh	EKI Energy Services Limited (Area manager, Assam)

Stove users list:

Sl. No.	Stove ID/Unique Number	Household Head Name	Village Name
1	112580	Kanchan Rabha	Uttar Jangalpara
2	121395	Swmsri Boro	Doragachuba
3	119427	Rohit Rabidas	Suklai
4	114716	Bimal Rabha	Barakhat
5	104088	Rima Boro	No. 1 Bamunjuli
6	108814	Jaumaishri Boro	Babarikhat
7	122203	Mathila Toppo	Bamunjuli
8	122309	Rina Choudhari	Dhoronikhat
9	114366	Anjali Das	Dakhin Jangalpara
10	108714	Sibbani Ramchiary	Parbahuchuba
11	110923	Debajani Baruah	Uttar Jangalpara
12	119222	Ramamaya Mijar	Uttar Naobandha
13	112237	Fulabara Bhuihar	Bamunjuli T.E
14	108306	Anjali Rabha	Dongpara
15	113308	Ranju Mochahary	Duliya PARA

The topics discussed during the interview range from the project's general characteristics and implementation to its technical details, including design and technical specifications, project implementation status, project start date, location, baseline identification, monitoring survey, data recording and archiving procedures, and baseline stove use. The evaluation was created using the interview input together with the analysis of registered joint PD&MR, submitted MR and observations.

2.4 Site Inspections

Total 15 sample were visited as part of the site visit, The verification team visited the site on 12-January-2023 and 13-January-2023, to perform the following tasks:

- A review of information flows for generating, aggregating, and reporting the monitoring parameters;
- Interviews with relevant personnel to ascertain whether the operational and data collection procedures are carried out in accordance with the monitoring plan in the registered VCS Joint PD and MR/1/;
- A cross check of the information collected during the above-mentioned processes.
- A comparison of the ICS functioning, observations of monitoring practices, applied methodology, including relevant tool(s), and, if appropriate, the applied standardized baseline, to the registered VCS Joint PD&MR/1/ standards;
- A review of the calculations and presumptions used to calculate the GHG data and emission reductions/2/;
- A determination of the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters/13/.
- A check of thermal efficiency test performed by an independent third party/14/.

In order to decrease audit risk to an acceptable low level and to obtain a fair degree of certainty for the current verification, the assessment team has verified adequate appropriate audit evidences.

2.5 Resolution of Findings

The goal of this step is to identify, discuss, and draw conclusions about any problems that may affect the registered project activity's ability to reduce emissions or have an impact on the recording, monitoring, and reporting of those reductions. These problems may be related to the sampling size, monitoring parameters and monitoring plans, implementation status, or operations of the registered project activity. Based on the desk review and site evaluation, this was carried out. The verification team creates and/or maintains verification procedures (internal document) that documents conformities and non-conformities, which may include the following kinds of issues:

If one of the following occurs, a CAR (Corrective Action Request) is raised:

- the project participants have not adequately recorded their non-compliance with the project description, the monitoring methodology and its tools are not applicable, the additionality instruments are not sufficient, or the evidence provided to demonstrate conformity is insufficient;
- If the project participants have not appropriately recorded any non-conformance with the monitoring plan, methodology, or standard baseline when monitoring and reporting is performed, or if there is insufficient evidence to support conformity;
- The project participants have not appropriately documented changes to the implementation, operation, and monitoring of the registered project activities;

- The quantity of emission reductions will be impacted by errors in the application of assumptions, data, or computations
- The project participants have not addressed problems identified in a FAR during validation that need to be confirmed during verification or in a prior verification.

If there is inadequate or unclear information to assess if the relevant CDM standards have been satisfied, a clarification request (CL) is made. Prior to submitting a request for registration and issuance, any CAR and CL that the Applus+ Certification raised during validation and verification must be addressed.

07 Corrective Action Requests (CARs) and 01 Clarification Requests (CRs) were raised during verification and successfully closed. No FAR was raised as a part of earlier Joint validation and verification and FAR was not raised during this verification period.

Appendix 3 contains all of the findings that are brought forward and shared with project participants during the verification. The section also covers the project participants' responses, if any, and the verification team's evaluation subsequently for any open findings.

2.5.1 Forward Action Requests

The project activity is undergoing Verification under VCS, and no FAR issues have been raised in current verification and no FAR was raised as a part of joint validation and verification of the project activity.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification, as Applus+ Certification holds the accreditation for Validation of projects under this Sectoral Scope.

3. VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity is first registered under VCS (https://registry.verra.org/app/projectDetail/VCS/2664) with crediting period of 07 years. The undertaking/15/ is provided to confirm that the project is not registered under CDM or GS or any other GHG mechanism proving that there is no double accounting for current monitoring period and also that the project activity is not claiming any REC benefits for the current monitoring period.

3.2 Methodology Deviations

The project activity has applied correct methodologies which are as per the registered VCS joint PD&MR/1/. Thus, no deviation is sought regarding the methodology. The project complies with all the

requirement of the methodology and thus deviation to the methodology is not a requirement for the present project activity.

3.3 Project Description Deviations

EKI is seeking the following deviation in the registered joint PD&MR:

1. In the approved joint PD & MR section 5.1, the monitoring parameter "Date of commissioning of batch j" is considered for monitoring however, PP has decided to discontinue the same. As observed during site visit and desk review, each ICS is one instance installed under this grouped project activity and batch concept will not be applicable for these instances. Hence, the monitoring parameter "Date of commissioning of batch j" is not relevant & removed by PP from monitoring plan.

   Verification team found that the deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals and the deviations relate only the project description and do not relate to any other part of the methodology. The nature of this deviation is permanent.

   The above requested deviation is found to be not impacting the additionality, Scale of emission reduction, scope and project design thus, accepted by VVB.

2. In the approved joint PD & MR section 5.3 "monitoring plan", the parameters "date of commissioning of batch j or project activity instance" & "date of commissioning of project device" are mentioned with monitoring using sampling approach. VVB checked and confirmed that these parameters can be recorded and monitored based on ICS distribution database and need not to be monitored through onsite monitoring using a sampling approach. Hence, this additional information removal from section 4.3 of MR is found appropriate.

   Verification team found that the deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals. Moreover, The above requested deviation is found to be not impacting the additionality, Scale of emission reduction, scope and project design thus, accepted by VVB. The nature of this deviation is permanent.

3. In the approved joint PD & MR section 5.3 "monitoring plan", the frequency of the internal audit is mentioned as six months. This is not the compliance requirement as per the applied methodology. Therefore, EKI has removed the frequency from the section 4.3 of the monitoring report. Although, as and when required, EKI will plan to conduct the internal audit to check the availability, performance and/or discrepancies/nonconformities in usage of the installed ICS.

   Verification team found that the deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals. Moreover, The above requested deviation is

found to be not impacting the additionality, Scale of emission reduction, scope and project design thus, accepted by VVB. The nature of this deviation is permanent.

3.4 Grouped Project

New project activity instances included under this grouped project ensure that it meets the eligibility criteria as below. It was checked and confirmed that during current monitoring period, no new project activity instances were added to the current grouped project.

No.	Criterion	How the new project activity instances comply the requirement
1	Meet the applicability conditions set out in the methodology applied to the project	Project activity instances (Energy Efficient Cook Stoves) included under this grouped project activity meet the applicability conditions set out in Section 3.2 of the registered VCS joint PD & MR/1/, where the target of the end-user is household and the ICS deployed is at least 25% of thermal efficiency/14/.
2	Use the technologies or measures specified in the project description.	The technology used for project activity is improved cook stoves. Only one model (AGNEEKAA ECO MINI STOVE MODEL4) of energy efficient cook stoves has distributed under this group project activity.
3	Apply the technologies or measures in the same manner as specified in the project description.	Only energy efficient cook stoves adopted in the project by replacing traditional cook stoves in household.
4	Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.	The new project activity instances will be installed within Indian states of Assam in Udalguri district subject to the same baseline scenario determined in Section 3.4 of the approved joint PD & MR.
5	Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area.	Included project activity instances 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 energy efficient cook stoves for each project activity instances.

		Step 2: Positive List Under this project the ICS were installed at zero cost to the household and has no other source of revenue other than the sale of GHG credits. Therefore, the project activity instances comply with criterion 1 of positive list conditions of the methodology.
6	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: Each project activity instance that exceeds one percent of the capacity limit shall be identified. Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters. None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.	No project activity instance shall exceed the applicable limit, which is 180 GWh_{th}/y. Since the project activity instances have same model, hence expected annual energy saving for each instance is 0.0145 GWh_{th}/y which is 0.008% of the threshold limit As the annual energy saving is below 1% of the limit, therefore no project activity instance is identified and divided into clusters.

Along with above points, the Project Activity Instances follows below criteria

No.	Criterion	How the new project activity instances comply the requirement
1	Occur within one of the designated geographic areas	Included project activity instances (Energy Efficient Cook Stoves) occurred in the geographic boundaries of Indian states of Assam in Udalguri district, as specified in

No.	Criterion	How the new project activity instances comply the requirement
	specified in the project description	approved joint PD & MR. Verification team during the site visit of selected samples verified that the selected household are located within geographic boundaries of India using GPS meter. Moreover, verification team during document review verified that the mentioned addresses of the households are within geographic boundaries of India based on google earth software.
2	Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of eligibility criteria is insufficient.	Included project activity instances comply with complete set of eligibility criteria as mentioned above in the same section.
3	Be included in the monitoring report with sufficient technical, financial, geographic and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body.	project activity instances information had been included in the current monitoring report with sufficient technical, financial, geographic and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body. Verification team during document review and site visit verified that the details mentioned in the current monitoring report are consistent with the registered Joint PD&MR and demonstrated compliance with the eligibility criteria. Further, based on the submitted database, verification team was able to carry out sampling as demonstrated in section 4.1 of this document.
4	Be validated at the time of verification against the applicable set of eligibility criteria	New project activity instances should be included by validating eligibility criteria as mentioned in this document. There were no new project instances, that were added during this monitoring period.
5	Have evidence of project ownership, in respect of each project activity instance, held by	Ownership of included project activity instances were evidenced from the submitted end user agreement.

No.	Criterion	How the new project activity instances comply the requirement
	the project proponent from the respective start date of each project activity instance (i.e., the date upon which the project activity instance began reducing or removing GHG emissions)	
6	Have a start date that is the same as or later than the grouped project start date	Start date of included project activity instances was after the start date of grouped project activity. VVB during document review verified that the start date of each instance is after the start date of grouped project activity.
7	Be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). Note that where a new project activity instance starts in a previous verification period, no credit may be sought for GHG emission reductions or removals generated during a previous verification period (as set out in Section 3.4.4 of VCS standard version 4.1) and new instances are eligible for crediting from the start of the next verification period	Included project activity instances were eligible to claim credits from crediting period start date to the end of the project crediting period. VVB during document review verified that project activity instances Are not claiming credits for GHG emission reductions or removals generated during previous verification period.

4. VERIFICATION FINDINGS

4.1 Project Implementation Status

The VVB had interviews with concerned on-site persons and also conducted on site visits to households and has reviewed documents & photographs submitted by PP; hence assessment team concluded that the project activity is implemented and operated in-line with the submitted MR and registered Joint PD&MR. 35,045 nos. of ICS have been distributed. There are some changes in the project design which are mentioned under section 3.3 of this document. However, none of the above-mentioned change alter

the applicability or additionality of the project activity. In addition to the interviews with PP, assessment team have checked the all the documentation and found that the project activity is implemented as per the registered VCS joint PD &MR/1/ and Monitoring report/2/ submitted by the PP for current monitoring period 01-January-2022 to 31-December-2022 (both days included).

Parameter(s) monitored ex-post

<table>
<tr><td>Means of verification</td><td>The verification of the parameters required by the monitoring plan is provided as follows:

<table>
<tr><td>Data/ Parameter:</td><td>$N_{y,i,j}$</td></tr>
<tr><td>Data Unit:</td><td>Number</td></tr>
<tr><td>Description:</td><td>Number of project devices of type i and batch j operating during year y</td></tr>
<tr><td>Source of data used:</td><td>ICS installation database</td></tr>
<tr><td>Means of verification/Comments:</td><td>The number of stoves installed have been verified from the ICS installation database which provides the complete list of the stoves installed during each year. The type of stoves is defined as per the registered VCS joint PD and MR/1/. The project implementer is maintaining database of all the ICS installed. A usage monitoring survey was conducted in June 2022/10/ to determine the number of operating stoves of type i and batch j on a sampling basis. Value is measured directly or based on a representative sample as per methodology and 125 samples have been taken by the PP. As mentioned in the registered joint PD&MR/1/ the monitoring frequency of this parameter is biennially so data from the survey (conducted in June 2022) is acceptable. Assessment team has performed acceptance sampling to verify the survey result.
Based on the allowance given by the standard, VVB selected 15 randomised</td></tr>
</table>
</td></tr>
</table>

		households for acceptance surveying. The households were chosen from the 125 households already surveyed by the PP. The choice of 15 household samples is allowed with 0 acceptance number. Since this is an acceptance sampling, no oversampling was attempted by VVB, as it would go against the sampling guidance. Assessment team found that all the surveyed samples were working properly hence accepted. **Survey Procedure** - Since the population is homogeneous in nature considering the selection of end users based on specific criteria "simple random sample" is considered for selection of end users from each instance. However, care has been taken to select end users from the entire geographic outreach covered under each instance. PP has selected more than 100 samples for survey and average value of biomass consumption per cook stove is considered for ER calculations. The survey result indicates that biomass consumption per cook stove is 1.7885 Tonnes/year/stove. PP has submitted sample size calculation spreadsheet/16/ and random number generator where it was demonstrated that samples are drawn randomly. VVB further has cross-checked the sampling approach by the PP as per MR against registered VCS joint PD & MR/1/. Additionally, the related population size has been checked with corresponding supporting documents (e.g. Total ICS database, ER worksheet). VVB during the acceptance sampling survey interviewed the end users verified and found the data mentioned in the monitoring survey sheets. Hence accepted.	

		Input parameters for the sampling calculations have been checked for consistency with the stated approach and against registered VCS joint PD & MR[1] and the methodology requirement. Further, verification team has re-calculated the sample size according to the required confidence/precision and found the sample size correctly calculated. Also, the achieved precision for every parameter was recalculated by the verification team and was found to meet the minimum desired confidence and precision levels. The survey procedures are in line with Standard for sampling and surveys for project activities and programme of activities and as mentioned in the registered joint PD&MR[1] monitoring frequency of this parameter is Biennially, so previous survey data is accepted.
	Cross-check	-

Data/ Parameter:	$By{=}1,new,i,j,survey$
Data Unit:	Tonnes
Description:	Annual quantity of woody biomass used by improved cook stoves 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
Source of data used:	Monitoring Survey results
Means of verification/Comments:	Determined in the first year of the introduction of the devices (e.g. during the first year of the crediting period, y=1) through measurement campaigns at representative households and/or sample survey. Sample surveys to estimate this parameter, that are solely based on questionnaires or interviews (i.e. that do not implement measurement campaigns) may only be

	used if the following conditions are satisfied. (i) Baseline cookstoves have been completely decommissioned and only improved cookstoves are exclusively used in the project households; (ii) If multiple devices are used in the project, it is possible from the results of the survey questions to clearly differentiate the quantity of firewood being used by each device. In other words, if more than one device, or another device that consumes firewood, are in use in project households, then the sample survey needs to distinguish the quantity of firewood used by the project device and the other devices that use firewood. As mentioned in the registered joint PD&MR, the value of this parameter is determined during the first year of crediting period the same value is accepted during the current monitoring period.
Cross-check	---

Data/ Parameter:	Life Span
Data Unit:	Years
Description:	Operating lifetime of project device for projects opting Equation 5 for determining project stove efficiency
Source of data used:	Manufacturer declaration/11/
Means of verification/Comments:	The value of this parameter is taken as 7 years as per the manufacturer's technical specifications declaration. Verification team has verified the value with the help of technical brochure submitted by the PP and crosschecked the value with the registered PD&MR and found the value consistent.
Cross-check	---

The monitoring has been carried out in accordance with the monitoring plan contained in the registered joint VCS PD&MR/1/. All parameters were

	monitored and determined as per the registered monitoring plan. The substantiation of this conformity on information flow for these parameters including the values in the monitoring reports is reported in the above. During the verification, all relevant monitoring parameters of the registered monitoring plan have been verified with regard to the appropriateness of the verification method, the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. After appropriate corrections, carried out by the project participant, it is confirmed that all monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements. All parameters required to be monitored are recorded at the intervals required by the registered monitoring plan and the applied methodology. On the basis of review of source and nature of available evidences and records, the verification team confirms the quality of evidence for emission reduction provided is sufficient.

The MR /2/ formulae for calculating emission reduction, as certified by the used methodology VMR0006 Version 1.1/6/, have been examined and deemed to be accurate. The Joint PD & MR /1/ values and the ER verification sheet /2/ values have been compared. Additionally, the formulas used in the ER spreadsheet /2/were examined and confirmed to be in line with the technique used. The verification team certifies that all calculations are performed in accordance with the formulae specified in the applied methodology VMR0006 Version 1.1/6/ and the monitoring plan's requirements, that all parameters are used correctly, that all results are transparent and verifiable, and that all assumptions are described and supported by verifiable evidence.

Moreover, PP has provided contribution for the SDG parameters including SDG target 3.9, 7.1, , 13.2, in table 1 of MR which have been verified/19/ and found accurate by verification team.

For the monitoring period from 01-January-2022 to 31-December-2022 (both days included) there have been 215,035 tCO_2e less emissions overall. The ER sheet was used to verify the emission calculation, which was confirmed to be accurate and accepted.

Social benefits:

Reduces drudgery of women and children of rural areas (due to reduced fuel wood use) by reducing time spent and distance travelled for fuel wood collection. Reduction in firewood requirement helps in spending more time in productive activities such as education, employment etc. Improves overall health (particularly diseases related to respiratory system) of women and children by reducing smoke in the kitchen.

Environmental benefits:

Improves the local environment by reducing rate of forest degradation /deforestation in the project area. Conservation of forest not only reduced non-renewable biomass demand and also reduced soil erosion and loss of biodiversity as a consequence of deforestation. Reduces emission of black carbon to the atmosphere. Reduces Green-house gas emissions.

Economic benefits:

Employment opportunities for local communities involved in monitoring, training of users, undertaking periodic maintenance and post life time replacement. Reduces the expenditure involved in the pre project scenario for purchase of fuel wood.

Technological benefits:

Introduction of new technology to the rural communities. Knowledge transfer to trainers including technicians for pertaining training to users, maintenance of system. Demonstration of a successful project at household level creates replication potential in other states and countries.

In view of the above, the project proponent considers that, the project activity profoundly contributes towards sustainable development of the region as well as of the nation.

The project is not involved in any other form of GHG emission program and VCUs generated from this verification will not be used for other trading program to avoid any kind of double counting. The same is confirmed by the PP during the verification on-site audit. Assessment team also conducted independent review regarding the same and found that the statement of the PP is accurate, and project is not involved in any other kind of GHG trading for the present verifications/monitoring period.

The assessment team observed that the project is in line with the registered VCS Joint PD&MR/1/ and applied methodologies. PP has sought deviations related to project description; however, the proposed change doesn't alter the project design, additionality and emission reduction calculations. 07 CAR and 01 CL was raised during the verification process. Please refer below Appendix 2 for the detail closure of the CARs and CL.

Assessment team confirms following during the verification on site visit:

1. Start date of the project is 15-February-2020.
2. An undertaking letter has been submitted by PP for no double counting with any other GHG program. PP also has given a written declaration that project will not claim other form of GHG credit for the concerned monitoring period.
3. Assessment team confirms that this is the 2nd monitoring under VCS and covers the activity from 01-January-2022 to 31-December-2022 (inclusive of both dates). VCS crediting period is of 07 years with 15-February-2020 as the start date of the 1st crediting period and 15-October-2027 as the last date of crediting period.
4. GHG credits from 01-January-2022 to 31-December-2022 (both days included) will be claimed under VCS only. At any point of time during the crediting period, the project proponent will abide by the "Double Counting".
5. Assessment team checked and found that the Project proponent of the project activity is as below for the current monitoring period:

Organization name	EKI Energy Services Limited
Contact person	Mr. Manish Dabkara

Title	Project Consultant
Address	EnKing Embassy, Plot 48, Part II, Vijay Nagar, Indore, Assam 452010, India)
Telephone	+91 9907534900
Email	ramkrishna.patil@enkingint.org

VVB Sampling:

The verification team decided to draw samples mainly from the project samples selected by PP. Acceptance Sampling approach was employed by verification team, which follows the "Standard for sampling and survey for CDM project activities and programme of activities", version 9.0.

Applus certification has taken the paragraph 39 "Table 2 Sample Size and Acceptance Number" of the "Standard for sampling and survey for CDM project activities and programme of activities", version 9.0. into consideration in order to select a random sample from the CME based on the AQL of 0.5%, the UQL of 15%, and the producer's and consumer's risk at 10% and 10% respectively were selected. Therefore, a sample size (n) of 15 should have been verified at least, and accordingly with 0 as the maximum number of discrepancies (acceptance number) between the verified data and the PP data. Team verified 15 samples to validate and verify the project activity. The verification team selected random samples from the list of cookstoves installation database. Team has assessed (by on site visit & desk review of contract document between PO & user) a total of 15 samples (randomly selected) selected from different places. The presence of project stoves was checked during the onsite visit. The stoves details (unique serial number, date of installation, type of ICS, name of user and address) were also checked and found to be consistent with that reported in the installation database. No inconsistency was observed for any of the 15 samples with respect to the observations in the field.

A total number of 15 samples were verified consisting of the operation of the stoves on random basis.

4.2 Safeguards

4.2.1 No Net Harm

The project has only brought positive impacts on environmental and socio-economic aspects as elaborated in Section 4.1. No potential negative environmental or socio-economic impacts have been identified for the project; thus, this section is not applicable.

4.2.2 Local Stakeholder Consultation

As a part of on-going communication with local stakeholders, end users were informed about grievance register. The distributors have the responsibility to take grievances regarding the project activity and

same was to be conveyed to PP during operation of project activity. Thus, ongoing communication of stakeholders was followed through grievance mechanism. If any concerns received during operation of project activity, same were to be addressed if relevant to project activity and There were no grievances received during current monitoring period as confirmed from the copy of grievance register submitted and checked during the on-site visit/4/.

4.3 AFOLU-Specific Safeguards

Not Applicable.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the MR. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the monitoring plan of the MR and registered VCS joint PD& MR/1/.
Findings	No CAR or CL was raised.
Conclusion	As per the applied methodology, emission reductions are calculated as follows: **The Actual ER calculations for sample project activity instance are as below.** **Determination of number of ICS operating during year y** For instance 1 $N_{y,i,j}$ = 35,045 (Based on the monitoring survey by PP and the acceptance survey conducted by the VVB refer section 4.2 of this report) **Determination of efficiency of ICS during year y** $\eta_{new,y,i,j} = \eta_p \times (DF_n)^{y-1} \times 0.94$ Where, η_p = 32.19% DF_n = 0.99 Example of calculation: for y= 3

$\eta_{new,y,i,j}$ = 32.19% X $(0.99)^{3-1}$ X 0.94

= 29.66%

Determination of quantity of woody biomass that is saved in tonnes per ICS during year y

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

Example of calculation:

If y= 3,

$B_{y,savings,i,j}$= 1.7885 X [(0.2966/0.1) -1]

= 3.5156 tonnes

Period	$B_{y=1,new,i,survey}$	$\eta_{new,y,i,j}$	η_{old}	$B_{y,savings,i,j}$
01-January-2022 to 31-December-2022	1.7885 (Assessment is provided in the section 4.2 of this report)	29.66%	0.1	3.5156

Determination of emission reduction

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

Where,

$NCV_{wood\ fuel}$ = 0.0156 TJ/tonne

$f_{NRB,y}$ = 0.852

$EF_{wf,CO2} + EF_{wf,non\ CO2}$ = 112 + 26.23 = 138.23 tCO_2/TJ

Example of calculation:

for y = 3

$ER_{y,i,j}$ = 3.5156 X 0.0156 X 0.852 x 138.23 X 1 X 0.95 X 1

= 6.136 tCO_2

Therefore, for all project activity instances installed till end date of monitoring period under this project:

$ER_{y,i,j}$ = 215,035 tCO_2

The summary for project activity instances is as below

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01-01-2022 to 31-12-2022	215,035	0	0	215,035
Total	**215,035**	**0**	**0**	**215,035**

VVB confirmed that achieved emission reductions have been quantified correctly and in line with the methodology mentioned in the registered VCS joint PD&MR[1] .

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Following steps were taken to verify the quality of evidences:

- Records were submitted by the project proponent as evidences to determine emission reduction;
- The records, data and information provided were found valid for the current verification period.

The documents were verified during on-site assessment and when possible, were checked directly from its source;

- Interviews were performed during on-site audit with involved personnel and PP's representatives;
- The GHG emission reduction calculations were check step by step with PP's representatives;

the quality of evidences was found of adequate level by the verification team to ensure an accurate quantification of the emission reductions. The project proponent applied measures to ensure the required confidence/precision (if required) for each sampled parameter is met, allowing for non-response and the possible removal of outliers from the sample, as part of a Quality Control/Quality Assurance system. The choice of measure applied to each parameter depends on the cost of each data collection approach and logistics required. The project proponent determined the most effective measure for each parameter from the following list:

- Oversampling: Randomly draw a sample more than the calculated number (say 20%) and collect data from each

- Buffer Group: Randomly draw additional samples (say 20%) and collect data from only for minimum numbers of ICS as per sample size calculation. If this would not result in the required sample size data would be collected from the additional ICS that were selected in the sample.
- If precision required is not achieved by reliability check, use the lower bound or upper bound of estimates of the parameter.

The sampling plan had the following procedures in place to ensure good quality data. The project proponent ensured that field personnel have reviewed, understood and agreed to follow the monitoring plan procedures, including provisions for maximizing response rates, documenting out-of-population cases, refusals and other sources of non-response. A quality control and assurance strategy has documented. Quality control and assurance strategies include addressing non-sampling errors, such as non-response or bias from interviewer. The project proponent or a competent third party designated by the project proponent with the proper skills were trained the monitoring personnel on how to properly survey households to prevent bias from interviewer. In the case a household refuses to participate, another household was chosen at random. To reduce interviewer bias, good questionnaire design and well-tested questionnaires has been used.

4.6 Non-Permanence Risk Analysis

Not applicable.

5. VERIFICATION CONCLUSION

Applus+ Certification has been engaged by EKI Energy Services Limited to perform the verification of the "Installation of High Efficient Cook Stoves by EKI Energy Services Limited".

The management of the project participant is responsible for the preparation of the GHG emissions data and the reported/estimated GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered VCS joint PD&MR/1/ and MR/2/ and the approved methodologies.

Our Verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and VCS Standard version 4.4. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification team can confirm that:

- the project is operated as planned and described in the registered VCS joint PD&MR;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the registered VCS joint PD&MR.
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A reasonable level of assurance was achieved during the verification.
- No limitation observed for the present verification

Verification period: From 01-January-2022 to 31-December-2022 (first and last date included).

Verified achieved emission reductions in the above verification period are 215,035 tCO_2e:

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01-01-2022 to 31-12-2022	215,035	0	0	215,035
Total	**215,035**	**0**	**0**	**215,035**

APPENDIX 1: DOCUMENT REFERENCES

S. No	Title of Document	Version	Date
1.	Registered VCS Joint PD & MR Joint validation and verification report	3 2	14-October-2022 16-November-2022
2.	Emission reduction spreadsheet Monitoring Report Final Monitoring Report Initial Monitoring Report	03 01 04 01	23-January-2023 03-January-2022 01-April-2023 03-January-2022
3.	ICS Distribution data	-	-
4.	Grievance Register	-	-
5.	Efficiency certificate of ICS	-	17-November-20221
6.	VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves	1.1	-
7.	VCS Requirements: a) Verified Carbon Standard Program Guide, v4.3; b) Verified Carbon Standard, v4.4; c) VCS Program Definitions, Ver. 4.3 d) VCS Registration and Issuance Process, v4.3	-	-
8.	End User Agreements	-	-
9.	Site assessment –interviews of staff personnel, photographs, physical inspection of monitoring system	-	12-January-2023 and 13-January-2023
10.	Monitoring Survey Data Sheet carried out in June 2022		-
11.	Technical Specifications of the ICS / manufacturer's declaration on life span of ICS	-	-
12.	CDM Project Standard for project activities, v3.0 CDM Validation and Verification Standard, v3.0 Sampling and surveys for CDM project activities and programmes of activities, version 9.0- https://cdm.unfccc.int/filestorage/e/x/t/extfile-20210531160756474-Meth_Stan05.pdf/Meth_Stan05.pdf?t=a0h8cmdjY2hufDB3trwzZ7tid7m_L2VQB0SR	-	-
13.	Monitoring plan for the project site	-	-
14.	Thermal efficiency test carried out IIT Delhi	-	-
15.	Undertaking about no double counting	-	-
16.	PP/s sample size calculation spreadsheet	-	-
17.	Training records	-	-
18.	Undertaking by distributor regarding no double counting Under taking by manufacturer regarding no double counting	-	-

19.	SDG Contribution report submitted to VERRA	-	-

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MR	Monitoring Report
MWh	Megawatt hour
PD	Project Description
PP	Project Proponent
PS	Project Standard
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VVB	Validation and Verification Body

APPENDIX 3: FINDINGS OVERVIEW

CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS, FORWARD ACTION REQUESTS (CAR/CL/FAR)

CL ID	01	Section no.	4.1	Date: 19/01/2023
Description of CAR				
PP is requested to clarify about whether any monitoring survey was conducted to measure the value of parameter N$\boldsymbol{y,i,j}$ and Usage of baseline stoves along with Use of Baseline stoves along with project stoves, during the current monitoring period as frequency of monitoring for these values are biennially and they were measured at the time commissioning (15/02/2020)				
Project participant response				**Date:** 21/01/2023
The monitoring survey was conducted in the month of June 2022 to monitor the said parameters. The survey data sheet has been submitted to VVB for review along with other related supporting documents.				
Documentation provided by project participant				
Monitoring survey datasheet Survey forms				
VVB assessment				**Date:** 22/01/2023
PP has submitted monitoring survey carried out in the last week of June 2022 along with survey carried out in June, 2021 was also checked. VVB checked the survey and confirm that 125 end users were surveyed and all has confirmed that they are using the improved cook stoves and none of them has continued to use the baseline stoves. The same was confirmed during the on-site interviews with the end users. **Hence this CL is closed.**				

CAR ID	01	Section no.	3.1	Date: 19/01/2023
Description of CAR				
VVB upon verification of MR found 1. Formatting of cover page and some other sections in inconsistent with the VCS template requirements. 2. Monitoring period mentioned in the MR is not clear about inclusion of first and last date 3. Content table is not updated. 4. As project is undergoing 2nd verification, language of the description throughout the MR needs to be reframed as current description is in future tense. Correction sought.				
Project participant response				**Date:** 21/01/2023
1. Formatting has now been corrected in all the sections of revised MR as per the applicable template.				

2. Monitoring period has now clearly mentioned that the first and last dates are included in the revised MR. 3. Content table has now been updated in the revised MR. 4. Language of the statements mentioned in the revised MR has now been corrected.
Documentation provided by project participant
Revised MR version 02
VVB assessment **Date:** 22/01/2023
The revised MR version 02 dated 21/01/2023 was checked to confirm that PP has carried out required corrections in line with the applicable template guidelines. Also the content table in the MR is revised and the language used is corrected. Hence **this CAR is closed**.

CAR ID	02	**Section no.**	4.2.2	**Date:** 19/01/2023
Description of CAR				
PP mentions that as part of ongoing LSC Grievance registers are maintained. Copies of the same are requested for verification.				
Project participant response				**Date:** 21/01/2023
Scanned copy of the grievance register has now been submitted to VVB for further verification.				
Documentation provided by project participant				
Scanned copy of the grievance register				
VVB assessment				**Date:** 22/01/2023
PP has submitted copy of grievance register available with the local team which shows that no negative grievances were not received in the current monitoring period. The same was cross checked during the on site interviews. Hence **this CAR is closed**.				

CAR ID	03	**Section no.**	4.4	**Date :** 19/01/2023
Description of CAR				
1. PP requested to submit supporting documents for the monitored parameters. 2. PP shall provide supporting documents for SDG indicators achieved during current monitoring period as explained in sec. 1.11 of MR				
Project participant response				**Date :** 21/01/2023
1. Supporting documents for the monitoring parameters i.e. survey sheet & survey forms have now been submitted to VVB for further verification. 2. Supporting documents related to SDG indicators have now been submitted to VVB.				
Documentation provided by project participant				
Monitoring survey datasheet Survey forms Documents related to SDG parameters				
VVB assessment				**Date:** 22/01/2023
1. The section 4.2 has $N_{y,i,j}$ $B_{y=1,new,i,j,survey}$ Life Span as the monitoring parameters. PP has submitted monitoring survey report and forms which confirms the values for 1st 2 parameters and the submitted technical specifications confirmed life span of the ICS used. The same was also confirmed during on-site visit. Hence this part of CAR is closed.				

2. PP has submitted SDG monitoring report submitted to VERRA as well as stove distribution records, employment records and emission reduction calculations which confirmed that monitored value of SDG indicators and hence accepted. Hence this part of CAR is closed. **CAR is closed.**

CAR ID	04	**Section no.**	3.1	**Date:** 19/01/2023
Description of CAR				
PP is requested to update the sections 1.1, 1.11, 5.1 , 5.2 and 5.3 as per VCS MR template requirements.				
Project participant response				**Date:** 21/01/2023
All the sections of the revised MR have now been corrected in consistence with the applicable MR template.				
Documentation provided by project participant				
Revised MR version 02				
VVB assessment				**Date:** 22/01/2023
Revised MR version 02 was checked and it was confirmed that revised MR is in line with the MR templated. Hence this CAR is closed.				

CAR ID	05	**Section no.**	3.1	**Date:** 19/01/2023
Description of CAR				
PP requested to submit declaration in effect of avoiding double counting with regard to Participation under other GHG Programs/Other forms credits.				
Project participant response				**Date:** 21/01/2023
Declaration letter signed by EKI representative has now been submitted to VVB				
Documentation provided by project participant				
Declaration letter				
VVB assessment				**Date:** 22/01/2023
Declaration by EKI dated 03/01/2023 was checked and was found appropriate hence this **CAR is closed**.				

CAR ID	06	**Section no.**	3.1	**Date:** 19/01/2023
Description of CAR				
VVB upon verification of MR found that the table 1 under section 1.11 doesn't specifically mentions the SDG indicator of the targeted SDG as required by the VCS template requirement version 4.1. Moreover, PP is also requested to mention the contributions achieved during the current monitoring period, contributions achieved during previous monitoring periods and contributions achieved over life time of project activity.				
Project participant response				**Date:** 21/01/2023

Information on the related SDG indicator achieved during the current monitoring period and contribution achieved over the project activity's lifetime has been mentioned in the MR in consistence with the template requirement.
Documentation provided by project participant
Revised MR version 02
VVB assessment | **Date:** 22/01/2023
The section 1.11 of revised MR version 02 was checked to confirm that PP has not mentioned SDG contribution appropriately in respective columns which is checked and confirmed. Hence this **CAR is closed**.

CAR ID	07	Section no.	3.1	Date: 22/01/2023
Description of CAR				

1. Section 4.3 of registered VCS PD and MR mentions monitoring parameters as,

$N_{y,i,j}$, $B_{y=1,new,i,j,survey}$, Use of Baseline stoves along with project stoves during the monitoring period , Date of commissioning of batch j or Project activity instance and
Date of commissioning of project device

Submitted revised MR version 02 section 4.3 mentions all except Date of commissioning of batch j or Project activity instance and Date of commissioning of project device while, section 4.2 mentions $N_{y,i,j}$, $B_{y=1,new,i,j,survey}$, Life Span as monitored parameters.

PP shall correct the same.

2. Section 4.3 of the revised MR mentions that internal audits will be conducted at an Interval of 6 months. The audit findings not submitted to the assessment team.

Project participant response	**Date:** 23/01/2023

1. Parameters “Date of commissioning of batch j or Project activity instance” and “Date of commissioning of project device” need not to be monitored through onsite monitoring using a sampling approach. These parameters will be monitored from the distribution database. Therefore, EKI has sought the project description deviation to remove these parameters from section 4.3 of MR.

2. In section 4.3 of the MR, the frequency of the internal audit is mentioned as six months. This is not the compliance requirement as per the applied methodology. Therefore, EKI has sought the project description deviation to remove the frequency from section 4.3 of the monitoring report.

Documentation provided by project participant
Revised MR version 3
VVB assessment | **Date:** 24/01/2023
Deviation regarding the removal monitoring of parameters “Date of commissioning of batch j or Project activity instance” and “Date of commissioning of project device” as well as deviation related to frequency of internal audit mentioned in the section 3.1.2 of the revised MR has been verified and found relevant by the assessment team. Hence accepted. **CAR closed.**

APPENDIX 4: COMPETENCY STATEMENTS

Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Lead Auditor/Technical Expert	OR	Kumar	Pankaj	TQC-Outsourced entity	Yes	Yes	Yes	Yes
2	Technical Expert in Training	OR	Pundlik	Deepak	TQC-Outsourced entity	Yes	Yes	Yes	Yes

Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer (TR)	EI	Shen	Simon	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustin	Applus+ Certification

Short CVs of the Team:

1. **Pankaj Kumar** worked as team leader – Bihar for South Asia Climate Proofing and Growth Development (CPGD) – Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation), Govt. Of Bihar as Environmental Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA as Team Leader for validation, verification of around 100 GHG projects in Asia, Africa, USA, Asia Pacific & Americas. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1, 1.2, 3.1 & 13.1 by UNFCCC DoE (Designated Operational Entity),

APPLUS, Spain. He is also member of task force on climate change & human health, Health Department, GoB and on roster of UNICEF's WASH experts.

He Is an experienced, qualified and result oriented Environment Professional having more than 14 yrs. Of relevant experience in Climate Change (Mitigation &Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing.

Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I.C.F.R.E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India).

2. Mr. Deepak Pundlik has experience in climate change, waste management and environmental management. After completing Masters in Environment Sciences from Pune university, He has worked in waste management field. As a GHG consultant, He handled projects under renewable energy, waste management sectors during his stint with companies - MITCON and Thermax. Post Thermax, Deepak was involved in organic farming research project with Tata Institute of Social Sciences. As a GHG auditor, He has validated/verified projects under CDM/VCS/GS and GCC mechanisms from renewable energy, energy demand, waste management sectors

3. Mr. Simon Shen (Master Degree in Thermal Energy Engineering, Bachelor Degree in Environmental Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and review with Applus+, apart from the years of experience working as GHG Auditor and ISO 9001/14001 in TUV SUD for 3.5 years before he joined Applus+. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager. Mr. Simon Shen is based in Shanghai, China. Mr. Simon Shen participate in the project's technical review team