




**Verification and certification report form for CDM programme of activities
(version 01.0)**

VERIFICATION AND CERTIFICATION REPORT

Title of the programme of activities (PoA)	African Improved Cooking Stoves Programme of Activities	
UNFCCC reference number of the PoA	5342	
Version number(s) of the PoA-DD(s) applicable to this report	Version 4.3, dated 07/06/2014	
Version number of the verification and certification report	1.0	
Completion date of the verification and certification report	19/07/2017	
Monitoring period number	04	
Duration of this monitoring period	25/10/2015 - 24/10/2016 (inclusive of both days)	
Number and version number of the monitoring report to which this report applies	Batch 02, Version 3.0 dated 19/07/2017	
Coordinating/managing entity (CME)	Envirofit International Ltd.	
Host Party(ies)	Host Party(ies) of the PoA	Is this a host Party to a CPA covered in this report?(yes/no)
	Ghana	No
	Nigeria	Yes
	Liberia	No
Sectoral scope(s)	Sectoral scope: 3: Energy demand	
Selected methodology(ies)	AMS-II.G Ver 3.0: Energy efficiency measures in thermal applications of non-renewable biomass	
Selected standardized baseline(s)	Not applicable	
Total estimated GHG emission reductions or net GHG removals for this monitoring period in the included CPA(s) covered in this report	88,318 tCO ₂ e	
Total certified GHG emission reductions or net GHG removals for this monitoring period for the included CPA(s) covered in this report	22,044 tCO ₂ e	
Name of DOE	Earthood Services Private Limited	

<p>Name, position and signature of the approver of the verification and certification report</p>		
	<p>Dr. Kaviraj Singh Managing Director</p>	

SECTION A. Executive summary

The registered PoA under verification involves distribution of improved cook stoves (ICS) in the regions of Ghana, Nigeria and Liberia. The ICS are biomass based which replace the wood fuel/charcoal based traditional stoves. The ICS distributed under the programme are more efficient in transferring heat from the fuel to the pot when compared to the stoves typically being used in the baseline.

The distribution is taken care of by Envirofit International Ltd (Envirofit) which is the CME of the PoA as well as Distribution Organisation (DO) for implementation of the CPAs.

The areas (majorly rural and semi-urban) where the PoA implementation has taken place uses the inefficient traditional stoves (three-stone fired and equivalent). It has been replaced with the efficient improved cook stoves (ICS) which combust the fuel (wood or charcoal, wood fuel based traditional stoves being replaced by wood fuel based ICS (M5000) and charcoal fuel based traditional stoves being replaced by charcoal ICS (CH2300, as part of this verification)) far more efficiently resulting in generation of much lesser GHG and particulate matter. Additionally, it enhances the flow of thermal energy to cooking pots reducing the fuel usage and thus reduces GHG emissions and improves livelihood prospects due to reduced expenses on fuel. These effects further results into improvised health of women and children in the household.

There are 6 CPAs viz., 5342-0001, 5342-0002, 5342-0003, 5342-0004, 5342-0005 and 5342-0006 included under the registered PoA. However, this request of issuance has been submitted only for two CPAs in Nigeria viz., 5342-0004 and 5342-0005. The current verification consists of two CPAs; 5342-0004 and 5342-0005 that are located in Nigeria.

Scope of verification:

The verification is an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification includes the implementation and operation of the PoA as set out in the revised accepted PoA-DD & registered CPA-DDs viz., 5342-0004 and 5342-0005 in the monitoring period. The verification tests the data and assertions set out in the monitoring report based on the following:

The verification tests the data and assertions set out in the monitoring report prepared for this monitoring period by the CMEs and is based on the following:

- (i) The approved methodology AMS II.G version 03 "Energy efficiency measures in thermal applications of non-renewable biomass"
- (ii) The registered and/or revised PoA-DD & CPA-DD and monitoring plan
- (iii) UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords
- (iv) The CDM Validation and Verification Standard (VVS)
- (v) The CDM Project Standard (PS) and Project Cycle Procedure (PCP)
- (vi) Relevant decisions, guidance and clarifications of the CMP and CDM Executive Board and any other information and references relevant to the project activity's reported emission reductions

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC, as appropriate to the PoA. The verification is not meant to provide any consulting or recommendations to the CME/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

Verification Process:

The verification process is conducted as per internal CDM Quality Manual, which includes the following steps;

- a) Contract with CME and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- b) Completeness check of Monitoring Report
- c) Publication of Monitoring Report at UNFCCC website
- d) Desk review (refer Section C.1 of this report) of Monitoring Report and corresponding ER sheet by verification team and planning of onsite audit (including sampling approach (refer Section C.4 of this report) to be applied)

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- e) On site audit (refer Section C.2 of this report) (physical implementation and interview with relevant stakeholders) by verification team consistent of Team Leader and all Technical Experts, as a minimum
- f) Follow up activities e.g., interviews (refer Section C.3 of this report)
- g) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section C.5 of this report)
- h) Independent technical review (refer Section D of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidences)
- i) Reporting and closure of TR comments/findings (refer Section C.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section E and F of this report).
- j) Issuance of final verification report to contracted CME (or authorized representatives) and submission of request for issuance, as appropriate.

Verification Conclusion:

Based on the outcome of the verification process of the registered PoA “African Improved Cooking Stoves Programme of Activities” and its 02 CPAs (Batch 02 consisting of 5342-0004 and 5342-0005) for the monitoring period 25/10/2015 - 24/10/2016 (including both dates) ESPL confirms that the implementation of referenced registered PoA and CPAs is complying with applicable CDM rules and regulations as stated in the Monitoring Report (final) Version 3.0 dated 19/07/2017. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology AMS II.G Version 03 and the monitoring plan contained in the revised accepted PoA-DD.

Earthood Services Private Limited is able to certify that the emission reductions from the registered CDM PoA UN#5342 “African Improved Cooking Stoves Programme of Activities” from its CPAs in Nigeria during the period 25/10/2015 - 24/10/2016 (including both dates) amount to 22,044 tCO_{2e}. Therefore, this is being submitted for request for issuance, as per UNFCCC procedures.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team members

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.	Team Leader	IR	Gautam	Ashok Kumar	Central office	Y	Y	Y	Y
2.	Technical expert TA3.1	IR	Gautam	Ashok Kumar	Central office	Y	Y	Y	Y
3.	Methodological Expert	IR	Gautam	Ashok Kumar	Central office	Y	Y	Y	Y
4.	Local expert	EI	Ijeoma	Adeola	Central office	Y	N	N	N

B.2. 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	IR	Mahawar	Abhishek	Central Office
2.	Technical expert	IR	Kumar	Sanjeev	Central Office
3.	Approver	IR	Singh	Kaviraj	Central Office

SECTION C. Means of verification**C.1. Desk review**

The desk review involves:

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

The list of documents reviewed during the verification is provided under appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection: 25/06/2017 to 29/06/2017				
No.	Activity performed on-site	Site location	Date	Team member
1.	Physical site visit : Households visited (implementation of PoA)	Nigeria	25/06/2017 to 29/06/2017	Ashok Gautam
2.	Review of information flows for generating, aggregating and reporting the monitoring parameters	Nigeria	25/06/2017 to 29/06/2017	Ashok Gautam
3.	Cross check between information provided in the monitoring report and data from other sources such as project database, sales receipts etc;	Nigeria	25/06/2017 to 29/06/2017	Ashok Gautam
4.	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the applicable requirements	Nigeria	25/06/2017 to 29/06/2017	Ashok Gautam
5.	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	Nigeria	25/06/2017 to 29/06/2017	Ashok Gautam

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Olaore	Biodun	Director, Envirofit Nigeria	25/06/2017 to 29/06/2017	Implementation, ICS distribution, Sales Database, Monitoring survey, WBT, data review, Supervision	Ashok Gautam
2.	Elizabeth	Djedo	Envirofit Nigeria	28/06/2017	Sales Database & monitoring data recording	Ashok Gautam
3.	Odero	Clara	Envirofit Kenya	27/06/2017	WBT analysis, results	Ashok Gautam
4.	Alabi	Gbenga	Envirofit Kenya	25/06/2017 to 29/06/2017	Field Survey Support, Training	Ashok Gautam
5.	-	Godwin	Envirofit Kenya	25/06/2017 to 29/06/2017	Field Survey Support, Training	Ashok Gautam
6.	Falade	Mayowa	Envirofit Kenya	25/06/2017 to 29/06/2017	Field Survey Support	Ashok Gautam
7.	Lohia	Rohit	Envirofit International	Numerous	Monitoring report, Sampling calculations, ER calculations,	Ashok Gautam
8.	Owoyemi	Julius	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
9.	Oladele	Atinuke	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
10.	Solomon	Kemi	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
11.	Joy	Ogbemudi a	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
12.	Falade	Temitope	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
13.	Adenike	Adejumo	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
14.	Irewole	Hinmikaiye	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
15.	Djedo	Dupe	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
16.	Omowunmi	Enimola	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
17.	Isokpan	Doris	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
18.	Oko	Teressa	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
19.	Urom	Michael	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
20.	Okene	Hajiya	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
21.	Saidu	Aishatu	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
22.	Lebechi	Ukwu	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
23.	Mmecha	Blessing	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
24.	Ezine	Ngozi	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam
25.	Abagha	Merit	ICS User	25/06/2017 to 29/06/2017	DOE Survey	Ashok Gautam

C.4. Sampling approach

A single sampling plan in accordance with AMS-II.G. version 3.0 /7/ was carried out for the specific case CPAs covered in this monitoring period. The CME has applied Simple Random Sampling across the CPAs for different monitoring parameters as per validated PoA DD and CPA DDs and 95/10 confidence precision was applied by CME, which is appropriate given the length of monitoring period and sampling was done across the CPAs covered. The monitoring survey was carried out between 01/03/2017 to 31/05/2017 for the monitoring period. The detailed sampling approach undertaken by CME is duly explained under Section G.3 of monitoring report.

DOE’s sampling approach:

The onsite physical verification approach (number of households/ICS) of the verification team was prepared in accordance with para 33 (a) & 33 (b) of “Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 7 /16/” considering the estimated annual ERs for the CPAs covered were less than 100,000 tCO₂e and security conditions (conflict situations) /33, 34/ in Nigeria (which is the host Party for the CPAs being verified) prevents inspection of many samples.

The CPA being verified includes two types of ICS devices (wood and charcoal based), therefore, the verification considered 9 samples for each type of ICS for the current verification considering the following basis;

The verification team determined the sample size for acceptance sampling by evaluating the following, using its own professional judgment and guidance in the Standard ‘Sampling and surveys for CDM project activities and programme of activities’ version 7 /16/:

- The proportion of discrepancies between the CME’s data and verification team’s (field or onsite inspection results) data that can be considered acceptable. This is referred to as the AQL (Acceptable Quality Level): 1% was considered in this verification.
- The proportion of discrepancies between the CME’s data and verification team’s (field or onsite inspection results) data that would be considered unacceptable. This is the UQL (Unacceptable Quality Level): 20% was considered in this verification.
- The producer risk of 10% and consumer risk of 20% were considered.

Apropos above, a sample size of 8 was required as per Table (page12) in the referred Standard /16/ for each monitoring session. Accordingly, Acceptance number (c) thus determined for the sample size is 0. Therefore, a sample size of 9 met the criteria.

The verification team together verified 9 samples for each type/model of ICS (i.e., 9 for M5000 & 9 for CH2300 Cookstoves) for the CPAs to verify the parameters SOF, (Stove Operation Fraction), f_{old} (The fraction of end users that are still using baseline (replaced) stoves) and μ_{old} (The amount of woody biomass consumption that is consumed through the continued use of old stoves) during site visit and observed that the sampling survey results of the CME for all the ICSs checked were consistent with DOE’s field survey results. In all, the verification team visited 18 households for both the type/model of ICS (M5000 & CH2300) combined.

For other parameter viz. $\eta_{new,y}$ (Efficiency of the system being deployed as part of the project activity), N_{all} (Total number of stoves installed) & $Stove_{year}$ (Calculated average stove operation years in the monitoring period) the verification team checked from the documentary evidences i.e., WBTs sheets, sales database submitted by the CME.

C.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
General	-	-	-
Compliance of the monitoring report with the monitoring report form	-	CAR#06	-
Remaining forward action requests from validation and/or previous verification	-	-	-
Specific-case CPA(s) considered for verification and covered in this report	-	-	-
Programme of activities	-	-	-
Compliance of the programme implementation with the	-	-	-

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registered PoA-DD			
Implementation and operation of the management system	-	-	-
Post-registration changes	-	-	-
<ul style="list-style-type: none"> Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline 	-	-	-
<ul style="list-style-type: none"> Corrections 	-	-	-
<ul style="list-style-type: none"> Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s)) 	-	-	-
<ul style="list-style-type: none"> Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA 	-	CAR#06	-
<ul style="list-style-type: none"> Types of changes specific to afforestation and reforestation activities 	-	-	-
Component project activity(ies)	-	-	-
Compliance of the CPA implementation with the included CPA design document	-	-	-
Post-registration changes	-	-	-
<ul style="list-style-type: none"> Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Corrections 	-	-	-
<ul style="list-style-type: none"> Changes to the start date of the crediting period 	-	-	-
<ul style="list-style-type: none"> Inclusion of a monitoring plan to an included CPA-DD 	-	-	-
<ul style="list-style-type: none"> Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline 	-	-	-
<ul style="list-style-type: none"> Changes to the programme design of the included CPA-DD 	-	-	-
<ul style="list-style-type: none"> Types of changes specific to afforestation and reforestation component project activities 	-	-	-
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline	-	-	-
Compliance of monitoring activities with the registered monitoring plan	-	-	-
<ul style="list-style-type: none"> Data and parameters fixed ex ante or at renewal of crediting period 	-	-	-
<ul style="list-style-type: none"> Data and parameters monitored 	-	CAR#05	-
<ul style="list-style-type: none"> Implementation of sampling plan 	-	CAR#02 CAR#03	-
Compliance with the calibration frequency requirements for measuring instruments	CL#01	-	-
Assessment of data and calculation of emission reductions or net removals	-	-	-
<ul style="list-style-type: none"> Calculation of baseline GHG emissions or baseline net GHG removals by sinks 	-	-	-
<ul style="list-style-type: none"> Calculation of project GHG emissions or actual net GHG removals by sinks 	-	-	-
<ul style="list-style-type: none"> Calculation of leakage GHG emissions 	-	-	-
<ul style="list-style-type: none"> Summary of calculation of GHG emission reductions or net GHG removals by sinks 	-	-	-
<ul style="list-style-type: none"> Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in 	-	-	-

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included specific-case CPA			
• Remarks on difference from estimated value in registered PDD	-	-	-
Others (explanation in ER sheet)	-	CAR#04	-
Total	01	05	00

SECTION D. Internal quality control

A draft verification report prepared by verification team is reviewed by an independent technical review team (one or more members) to confirm whether all the internal procedures established and implemented by ESPL were duly complied with and such opinion/conclusion were reached in an objective manner that complies with the applicable CDM rules/requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team.

During the technical review process additional findings may be identified or the closed out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to UNFCCC. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized by the Managing Director on behalf of Earthood Services Private Limited.

SECTION E. Verification opinion

Earthood Services Private Limited (ESPL), contracted by Envirofit International Ltd. (the CME for the PoA), has performed an independent verification of the emission reductions for the registered CDM PoA 5342 "African Improved Cooking Stoves Programme of Activities" for its two CPAs in Nigeria under the PoA's fourth monitoring period 25/10/2015 - 24/10/2016 (both dates included) as reported in the Monitoring Report (public) Version 1 dated 12/05/2017. The CME is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

This verification report is for the CPAs (5342-0004 and 5342-0005), which were included under the PoA as per the UNFCCC webpage at the end of the current monitoring period. A single monitoring report has been prepared by the CME for the same in which implementation of all referred CPAs along with monitoring results is included.

ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. This verification report has been prepared using the latest available template specified by UNFCCC and complies with the instructions to follow.

The verification activities were conducted in accordance with ESPL's CDM Quality Manual System as per the steps indicated under Section A of this report. The verification process has resulted in conclusion that the included CPAs confirm to the revised accepted PoA DD as well as comply with applicable CDM rules and regulations and in accordance with applied monitoring methodology, AMS II.G Version 03. There was no FAR raised during validation of PoA / CPA inclusion, which required further attention from the verification team.

As a result, it is confirmed that the emission reductions from the CDM PoA 5342 "African Improved Cooking Stoves Programme of Activities" are correctly reported in the Monitoring Report (final) Version 3.0 dated 19/07/2017 and corresponding ER sheets for the monitoring period 25/10/2015 - 24/10/2016 (including both days) amount as 22,044 tCO₂e. Therefore, this will be submitted as part of request for issuance as per CDM PCP Version 9.

SECTION F. Certification statement

The 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. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion, the GHG emissions reductions reported for the PoA for the monitoring period 25/10/2015 - 24/10/2016 are fairly stated in the Monitoring Report (final) Version 3.0 dated 19/07/2017.

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ESPL, based on outcome of verification activities, certify in writing that, during the monitoring period 25/10/2015 - 24/10/2016 (including both days), the registered CDM PoA “African Improved Cooking Stoves Programme of Activities” and all of the included CDM CPAs (5342-0004 and 5342-0005) in the registered CDM PoA achieved the verified amount of 22,044 tCO₂e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the CPAs.

The verified amount of emission reductions is stated below as per each CPAs and as per commitment period;

CPAs (included in this request)	Emission Reductions (Amount) in this monitoring period (in tCO ₂ e)	
	Up to 31/12/2012 (1 st commitment period)	01/01/2013 onwards
5342-0004	0	2,593
5342-0005	0	19,451
Total	0	22,044

SECTION G. Verification findings - General

G.1. Compliance of the monitoring report with the monitoring report form

Means of verification	The verification team has compared the monitoring report with the applicable monitoring report form.
Findings	CAR#06 was raised and resolved.
Conclusion	Monitoring report is prepared using the correct template (being latest at the time of publication, this version is valid till 28 March 2018) i.e. CDM-PoA-MR-FORM Version 01.0 /36/. The verification team confirms that the monitoring report has been appropriately prepared using the applicable monitoring report form, and that all sections are completed.

G.2. Remaining forward action requests from validation and/or previous verification

There were no FARs during validation /02/ of PoA, inclusion /05, 06/ of CPA or previous verification /35/ which needs to be closed during this monitoring period

G.3. Specific-case CPA(s) considered for verification and covered in this report

Reference number of the specific-case CPA included in the PoA as of the end of this monitoring period	Is the specific-case CPA considered for this verification? (yes/no)	Version number of the registered PoA-DD to which the specific-case CPA complies with	Confirmation that a request for issuance including the specific-case CPA has been published for the previous monitoring period (Y/N)
5342-0001	No	Version 4.3 dated 07/06/2014	-
5342-0002	No	Version 4.3 dated 07/06/2014	-
5342-0003	No	Version 4.3 dated 07/06/2014	-
5342-0004	Yes	Version 4.3 dated 07/06/2014	Y
5342-0005	Yes	Version 4.3 dated 07/06/2014	Y
5342-0006	No	Version 4.3 dated 07/06/2014	-

SECTION H. Verification findings – Programme of activities

H.1. Compliance of the programme implementation with the registered programme design document

Means of verification	<p>The registered PoA involves the promotion, distribution and sale of improved cook stoves (ICS) in regions of Ghana, Nigeria and Liberia. The overall responsibility of implementation and operation is with the CME, which was also evident during the site visit. This was found to be consistent with PoA-DD/01/. There were a total 06 CPAs (5342-0001, 5342-0002, 5342-0003, 5342-0004, 5342-0005 & 5342-0006) found included at the end date of current monitoring period. However, this monitoring report includes the implementation and monitoring of two CPAs (5342-0004 & 5342-0005) as part of registered PoA.</p> <p>The implementation of the CPA (included in this request), as referenced above, are</p>
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within the geographical boundary of the PoA DD as both CPAs(5342-0004 & 5342-0005) are located in Nigeria.

The type of ICS distributed under the CPAs is of type/model M5000 & CH2300 which is inline to the revised accepted PoA-DD/01/ and CPA-DDs/03, 04/. The design efficiency of the ICSs is 29.7% (type M5000) and 39.4% (type CH2300) with a life span of 5 years each /03, 04/.

Technical specifications of the ICSs were verified through the details provided by supplier /23,24/, and found to be consistent with information given in monitoring report.

The verification team has confirmed that the number of ICS deployed under the current CPAs is under the limit as set by the CME during the inclusion of each CPA and thus CPAs remain under the threshold of 180 GWh thermal energy savings/year. The total number of ICS deployed are 7,504 which is well within the maximum limit for the ICS distribution which is 27,926 as per the respective registered CPA DDs combined together.

CPA Ref. No.	ICS type	Quantity of ICS Sold / Disseminated during the current verification	Maximum Estimated Qty ICSs in CPA
5342-0004	M5000	947	13,658
5342-0005	CH2300	6,557	14,268
Total		7,504	27,926

The verification team was able to confirm that the quantity, specification and target group of the ICS is consistent with the PoA DD /01/ and respective CPA DD/03, 04/. Further, based on the review of ICS distribution database in ER sheet/11/, physical observations and interview conducted during the site visit, the verification team found that:

- The CPA is implemented within the boundary of the PoA as described in the PoA-DD.
- The CME is same as that mentioned in the PoA-DD
- The implementation and operation of the project activity has been conducted in accordance with the description contained in the PoA-DD and included CPA-DD.
- All physical features of the CPA proposed in the included CPA-DD are in place
- The project participants/CPA implementer has operated the CPA as per the included CPA-DD.

The verification team has visited the 18 households during site visit. It was observed that each ICS was assigned a unique identification number, which ensures that no double counting occurs. The unique identification number on sampled ICSs, personal information of ICS owners and commissioning date of ICS were cross checked during the physical on-site inspection, primary record of sales database and with the Sales database in ER sheet /11/. The operation of the ICS was confirmed through interviews of owners/representatives (of ICS) during the site visit.

The emission reductions being claimed during this monitoring period are lesser than the estimated emission reductions in the included CPA-DDs. The estimated CERs were 88,318 tCO_{2e} whereas achieved ERs are 22,044 tCO_{2e} for the current verification.

The CPA wise estimated CERs & achieved ERs were;

CPA Ref. No.	Estimated ERs (tCO _{2e})	Achieved ERs (tCO _{2e})
5342-0004	44,159	2,593
5342-0005	44,159	19,451

The verification team considers the project description of the project contained in

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	the PoA-DD is complete and accurate. The PoA-DD complies with the relevant methodology, tools, forms and guidance at the time of PoA submission for registration. The monitoring report was compared and verified against the description provided in the PoA-DD and found to be correct
Findings	No finding was raised.
Conclusion	<p>a) The verification team confirms that the physical features (technology/type of ICS) of the implementation were in accordance with the PoA DD.</p> <p>b) The actual operation is in line to respective CPA DDs, which is further explained under Section I.1 of this report.</p> <p>c) The number of installations in the CPAs for the type of ICS were less than the maximum quantity estimated in the CPA-DD. This is due to the reason that the ICSs are subject to the physical sale of stoves by retailers during the CPA lifetime which is based on the market demand for the product.</p> <p>d) The actual CERs for CPA were lower for comparable monitoring period. No information with regard to data and variables was identified that may surpass the estimated quantity of ERs in the CPA DD</p>

H.2. Implementation and operation of the management system

Means of verification	<p>Based on the interview of CME representatives and monitoring team during the site visit, it is confirmed that the CME has organized an appropriate management and operational system for monitoring and reporting.</p> <p>Envirofit International Ltd. is CME for the PoA and responsible for inclusion of CPAs in the PoA.</p> <p>CME records the unique identification number, location, and installation date of each ICS in each CPA, helps to identify, locate and verify any or all of the ICS installations in particular CPA. The verification team has checked the cookstove sales database in the CME's system during the site visit to ascertain the record keeping system of the CME.</p> <p>CME is responsible for QA/QC of the data, analysis and reporting into the monitoring report. For survey data, monitoring team consist of the team member from CME which is consisting of trained monitoring staff, who conducted the surveys and WBTs. The monitoring manager at the CME is responsible for QA/QC of the data, analysis and reporting into the monitoring report /09/. The trainings are imparted to the monitoring & survey team by the CME's trained person, and the CME has provided the PPT "Monitoring Survey Training Presentation"/29/ to the verification team. The verification team has checked the PPT for the training and also interviewed few of the trained monitoring staff/field officers during the site visit and found that they (monitoring & survey team) are well trained to carry out the task. Regular trainings are provided to the field team as a part of continuous improvement procedures.</p>
Findings	No finding was raised.
Conclusion	The verification team assessed the management systems in place to implement the monitoring of the PoA. This included the roles and responsibilities, data collection, transfer and aggregation procedures, data storage and archiving for the monitoring system. The roles and responsibilities data collection transfer and aggregation procedures, data storage and archiving for the monitoring system have been provided in the MR /09/. The verification team confirms that the monitoring management system of the PoA is in place with the responsibilities properly identified and established.

H.3. Post-registration changes

H.3.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Not applicable

H.3.2. Corrections

Not applicable

H.3.3. Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s))

Not applicable

H.3.4. Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline

Not applicable

H.3.5. Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA

A previously approved PRC to expand the PoA boundary to include Liberia exists at:

<https://cdm.unfccc.int/PRCContainer/DB/prcp237694862/view>

Ref. No. PRC-5342-001 approval date 17/07/2014

H.3.6. Types of changes specific to afforestation and reforestation activities

Not applicable

SECTION I. Verification findings – Component project activity(ies)

I.1. Compliance of the CPA implementation with the included CPA design document

Means of verification	<p>CPA 5342-0004 & CPA 5342-0005 described in this section targets the promotion, distribution and sale of ICS/Improved Cook Stoves of model M5000 & CH2300 respectively, of ICS implemented in this CPA till date. Envirofit International Ltd. is the CPA implementer for the implementation of CPA.</p> <table border="1" data-bbox="448 1021 1382 1386"> <thead> <tr> <th>CPA Ref. #</th> <th>5342-0004</th> <th>5342-0005</th> </tr> </thead> <tbody> <tr> <td>Inclusion date of CPAs</td> <td>23/09/2014</td> <td>23/09/2014</td> </tr> <tr> <td>Location</td> <td>Nigeria</td> <td>Nigeria</td> </tr> <tr> <td>Product Type</td> <td>ICS</td> <td>ICS</td> </tr> <tr> <td>ICS Model</td> <td>M5000</td> <td>CH2300</td> </tr> <tr> <td>Quantity Sold / Disseminated</td> <td>947</td> <td>6,557</td> </tr> <tr> <td>Maximum Estimated ICSs in CPA</td> <td>13,658</td> <td>14,268</td> </tr> <tr> <td>ICS sales start date</td> <td>06/02/2013</td> <td>09/01/2013</td> </tr> <tr> <td>Estimated CERs (comparable period)</td> <td>44,159</td> <td>44,159</td> </tr> <tr> <td>Actual CERs from the ICS Type</td> <td>2,593 tCO₂e</td> <td>19,451 tCO₂e</td> </tr> <tr> <td>Thermal savings achieved</td> <td>9.49 GWh_{th}</td> <td>71.20 GWh_{th}</td> </tr> </tbody> </table> <p>ICS were distributed in Nigeria, which is consistent with the description given in the included CPA-DDs. By the end of current monitoring period the total number of cook stoves disseminated under the two CPAs, were within estimated quantity of ICSs as per CPA DDs. It has been checked by the verification team that the CPA is below the threshold of 180 GWh/year (thermal).</p>	CPA Ref. #	5342-0004	5342-0005	Inclusion date of CPAs	23/09/2014	23/09/2014	Location	Nigeria	Nigeria	Product Type	ICS	ICS	ICS Model	M5000	CH2300	Quantity Sold / Disseminated	947	6,557	Maximum Estimated ICSs in CPA	13,658	14,268	ICS sales start date	06/02/2013	09/01/2013	Estimated CERs (comparable period)	44,159	44,159	Actual CERs from the ICS Type	2,593 tCO ₂ e	19,451 tCO ₂ e	Thermal savings achieved	9.49 GWh _{th}	71.20 GWh _{th}
CPA Ref. #	5342-0004	5342-0005																																
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Thermal savings achieved	9.49 GWh _{th}	71.20 GWh _{th}																																
Findings	No finding was raised.																																	
Conclusion	<p>a) The verification team is of the opinion that physical features of the CPAs have been implemented in accordance with the CPA-DD.</p> <p>b) No specific monitoring equipment had to be installed according to the monitoring plan.</p> <p>c) It is also confirmed, through the physical site visit and review of the supporting documentation that physical features of the component CPAs have been implemented in accordance with the CPA-DD.</p> <p>d) The CPAs were also found to be completely operational in line with the CPA-DD.</p> <p>e) The information provided in the relevant sections of the monitoring report are appropriately describe the implementation and operational status of the PoA.</p>																																	

1.2. Post-registration changes

1.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline

Not applicable

1.2.2. Corrections

Not applicable

1.2.3. Changes to the start date of the crediting period

Not applicable

1.2.4. Inclusion of a monitoring plan to an included CPA-DD

Not applicable

1.2.5. Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline

Not applicable

1.2.6. Changes to the programme design of the included CPA-DD

Not applicable

1.2.7. Types of changes specific to afforestation and reforestation component project activities

Not applicable

1.3. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	The monitoring plan as contained in respective CPA-DD was reviewed against the monitoring requirements of the applied methodology AMS-II.G version 03 /07/ as well as PoA-DD with reference to the technology involved. Based on this review it was found that the monitoring plan contained in the CPA-DD includes all the required parameters to be monitored in the context of the CPA design and description and allows proper determination of emission reductions in accordance with PoA-DD and applied methodology AMS-II.G version 03 /07/.
Findings	No finding was raised.
Conclusion	The monitoring plan is in accordance with the approved methodology, AMS-II.G version 03 /07/ as included in the respective CPA-DDs /03, 04/.

1.4. Compliance of monitoring activities with the registered monitoring plan

1.4.1. Data and parameters fixed ex ante or at renewal of crediting period

1.4.1.1. Annual average biomass consumption per appliance, Q_{biomass} , Tonnes/year

Means of verification	The value considered for this monitoring period were		
	CPA UN Ref. No.	Value applied	Checked from
	5342-0004	4.94 Tonnes/year	CPA-DD /3/ page 24
	5342-0005	4.5 Tonnes/year	CPA-DD /4/ page 25
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the CPA-DDs /03, 04/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.1.2. Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass, $f_{\text{NRB}, y}$, Fraction

Means of verification	The value considered for this monitoring period is		
	CPA UN Ref. No.	Value applied	Checked from

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	5342-0004	0.93	CPA-DD /3/ page 24
	5342-0005	0.93	CPA-DD /4/ page 25
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the CPA-DDs /03, 04/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.1.3. Net calorific value of the non-renewable biomass that is substituted, NCV_{biomass} , TJ/tonne

Means of verification	The value considered for this monitoring period is		
	CPA UN Ref. No.	Value applied	Checked from
	5342-0004	0.015 TJ/tonne	CPA-DD /3/ page 25
	5342-0005	0.015 TJ/tonne	CPA-DD /4/ page 26
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the PoA-DD, applied methodology and CPA-DDs /03, 04/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.1.4. Emission factor for the substitution of non-renewable biomass by similar consumers, $EF_{\text{projected_fossilfuel}}$, tCO₂/TJ

Means of verification	The value considered for this monitoring period is		
	CPA UN Ref. No.	Value applied	Checked from
	5342-0004	81.6 tCO ₂ /TJ	CPA-DD /3/ page 25
	5342-0005	81.6 tCO ₂ /TJ	CPA-DD /4/ page 26
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the PoA-DD, applied methodology /07/ and CPA-DDs /03, 04/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.1.5. Efficiency of the system being replaced, η_{old} , Efficiency

Means of verification	The value considered for this monitoring period is		
	CPA UN Ref. No.	Value applied	Checked from
	5342-0004	0.106	CPA-DD /3/ page 25
	5342-0005	0.106	CPA-DD /4/ page 26
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the PoA-DD and CPA-DDs /03, 04/ are in accordance with applied methodology /07/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.1.6. Net to gross adjustment factor to account for leakages, LAF, Fraction

Means of verification	The value considered for this monitoring period is		
	CPA UN Ref. No.	Value applied	Checked from
	5342-0004	0.95	CPA-DD /3/ page 26
	5342-0005	0.95	CPA-DD /4/ page 26
Findings	No finding was raised.		
Conclusion	The values in the Monitoring Report /09/ and corresponding Emission Reduction Spreadsheet /11/ are consistent with the PoA-DD, applied methodology /07/ and CPA-DDs /03, 04/. The values applied for ER calculations in the relevant CPAs are correct and justified.		

1.4.2. Data and parameters monitored

1.4.2.1. Efficiency of the system being deployed as part of the project activity, η_{new} , Efficiency

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Annually

<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>Yes. The measuring and reporting frequency are in line to registered CDM PoA DD/1/, CPA DDs /03, 04/ and applied methodology /07/.</p>																																																									
<p>Monitoring equipment</p>	<p>The Water Boiling Tests (WBTs) /21,22/ were conducted by trained CME personal and undertaken according to applied methodology supported by PCIA /20/. The PoA DD or CPA DDs do not prescribe any specific monitoring equipment but weighing scale, moisture meter and thermometer were required and used to conduct WBT.</p> <p>The details of the equipment used for WBT are mentioned below -</p> <table border="1" data-bbox="751 685 1426 1296"> <thead> <tr> <th colspan="3">Equipment</th> </tr> </thead> <tbody> <tr> <td colspan="3">Mini-thermometer:</td> </tr> <tr> <td colspan="3">Brand: Omega</td> </tr> <tr> <td colspan="3">Model: Omegaette HH308 Type K</td> </tr> <tr> <td colspan="3">Accuracy: +/- 0.3% reading +1°C</td> </tr> <tr> <td colspan="3">Number of units: 2</td> </tr> <tr> <td colspan="3">S/N:141203660 and 141203675</td> </tr> <tr> <td colspan="3">Mass balance</td> </tr> <tr> <td colspan="3">Brand: LW Measurements</td> </tr> <tr> <td colspan="3">Model: MCT-33 Plus</td> </tr> <tr> <td colspan="3">Accuracy: +/- 2 division, +/- 0.002 lbs</td> </tr> <tr> <td colspan="3">Number of units: 2</td> </tr> <tr> <td colspan="3">S/N: MCP1408033 and MCP1408035</td> </tr> <tr> <td colspan="3">Moisture Meter</td> </tr> <tr> <td colspan="3">Brand: Delmhorst</td> </tr> <tr> <td colspan="3">Model: J2000</td> </tr> <tr> <td colspan="3">Accuracy: +/- 0.2%</td> </tr> <tr> <td colspan="3">Number of units: 1</td> </tr> <tr> <td colspan="3">S/N: 38784</td> </tr> </tbody> </table> <p>The calibration requirements were found acceptable. These are described under Section I.5 of this report.</p>	Equipment			Mini-thermometer:			Brand: Omega			Model: Omegaette HH308 Type K			Accuracy: +/- 0.3% reading +1°C			Number of units: 2			S/N:141203660 and 141203675			Mass balance			Brand: LW Measurements			Model: MCT-33 Plus			Accuracy: +/- 2 division, +/- 0.002 lbs			Number of units: 2			S/N: MCP1408033 and MCP1408035			Moisture Meter			Brand: Delmhorst			Model: J2000			Accuracy: +/- 0.2%			Number of units: 1			S/N: 38784		
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S/N: 38784																																																										
<p>Calibration frequency /interval:</p>	<p>Not applicable</p> <p>Calibration frequency is not defined in the CPA DD or applied methodology.</p>																																																									
<p>How were the values in the monitoring report verified?</p>	<p>The WBT Sheets /21,22/ provided by PP were checked. The value of the parameter is mentioned below as per type/ model of ICS</p> <table border="1" data-bbox="751 1592 1418 1720"> <thead> <tr> <th>Stove model</th> <th>CPA Ref. No.</th> <th>Monitored Efficiency</th> </tr> </thead> <tbody> <tr> <td>M5000</td> <td>5342-0004</td> <td>28.21%</td> </tr> <tr> <td>CH2300</td> <td>5342-0005</td> <td>32.37%</td> </tr> </tbody> </table> <p>The results are based on representative sampling as prescribed in the registered monitoring plan. There were 10 random samples selected for each type of ICS as against the required number 7 for each. The verification team checked the primary record and WBT calculation sheet for each of them and found the results as included in the ER calculation sheets to be correct.</p>	Stove model	CPA Ref. No.	Monitored Efficiency	M5000	5342-0004	28.21%	CH2300	5342-0005	32.37%																																																
Stove model	CPA Ref. No.	Monitored Efficiency																																																								
M5000	5342-0004	28.21%																																																								
CH2300	5342-0005	32.37%																																																								
<p>If applicable, has the reported data been cross-checked with other available</p>	<p>The verification team has checked all the stove efficiency test (WBT) results and found out the efficiency of the ICS to be consistent. The monitored efficiency of the ICSs</p>																																																									

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	data?	were within the designed efficiencies as given in the CPA DD.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The WBTs were conducted in line with the guidance provided by the CME and according to a methodology supported by PCIA. The said documentation has been checked from PCIA website http://www.pciaonline.org/testing . The WBT Sheets/21,22/ provided by PP has been checked and found to be satisfactory.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not applicable
Findings	CAR#05 was raised and closed.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

I.4.2.2. Total number of stoves installed, N_{all}, Number

Means of verification	Criteria/Requirements	Assessment/Observation												
	Measuring /Reading /Recording frequency	Measured Annually												
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency are in line to registered CDM PoA DD/1/, CPA DD /03, 04/ and applied methodology /07/.												
	Monitoring equipment/Source	CPA Distribution Records and logbooks (Sales database)												
	Calibration frequency /interval:	Not applicable												
	How were the values in the monitoring report verified?	The values in the MR were verified from the Sales database /18/ during the on-site inspection. These are also included in the ER sheet /11/. <table border="1" data-bbox="746 1659 1334 1850"> <thead> <tr> <th>CPA Ref. No.</th> <th>Stove model</th> <th>As per database</th> <th>Discounted Number</th> </tr> </thead> <tbody> <tr> <td>5342-0004</td> <td>M5000</td> <td>947</td> <td>878</td> </tr> <tr> <td>5342-0005</td> <td>CH2300</td> <td>6,557</td> <td>6,327</td> </tr> </tbody> </table>	CPA Ref. No.	Stove model	As per database	Discounted Number	5342-0004	M5000	947	878	5342-0005	CH2300	6,557	6,327
CPA Ref. No.	Stove model	As per database	Discounted Number											
5342-0004	M5000	947	878											
5342-0005	CH2300	6,557	6,327											
	If applicable, has the reported data been cross-checked with other available data?	The values were checked from the sales database /18/ records were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet/11/ of final Monitoring Report /9/. The value of N _{all} is lower than actual distributed ICS in order to discount the households reporting more than one EF stoves. The procedure of discounting is as per												

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		registered monitoring plan.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The sales database was regularly checked by the Director in order to ascertain that there were no errors while recording the ICS information in the sales database w.r.t the cook stove serial numbers, name of the owner, location etc. This has been verified during the site visit by the verification team by interviewing the Director & the person responsible for the data recording (MIS).
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not applicable
Findings	CAR#05 was raised and resolved.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

I.4.2.3. Stove Operation Fraction – used to determine the share of distributed stoves that are still operating, measured ex-post through sampling, SOF, Fraction

Means of verification	Criteria/Requirements	Assessment/Observation												
	Measuring /Reading /Recording frequency	Measured Annually												
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The measuring and reporting frequency are in line to registered CDM PoA DD/1/, CPA DDs/03, 04/ and applied methodology.												
	Monitoring equipment	Survey questionnaires												
	Calibration frequency /interval:	Not applicable												
	How were the values in the monitoring report verified?	The values in the MR have been verified from the Monitoring Survey results/18/. <table border="1" data-bbox="746 1675 1353 1892"> <thead> <tr> <th>CPA Ref.</th> <th>Model</th> <th>Value</th> <th>Number of stoves operational</th> </tr> </thead> <tbody> <tr> <td>5342-0004</td> <td>M5000</td> <td>0.982</td> <td>54 out of 55</td> </tr> <tr> <td>5342-0005</td> <td>CH2300</td> <td>0.947</td> <td>54 out of 57</td> </tr> </tbody> </table>	CPA Ref.	Model	Value	Number of stoves operational	5342-0004	M5000	0.982	54 out of 55	5342-0005	CH2300	0.947	54 out of 57
CPA Ref.	Model	Value	Number of stoves operational											
5342-0004	M5000	0.982	54 out of 55											
5342-0005	CH2300	0.947	54 out of 57											
	If applicable, has the reported data been cross-checked with other available data?	The survey results, assumptions and sales records were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet/11/ of final Monitoring Report/9/. The verification team randomly selected 18 samples (9												

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		samples for each model of stove i.e., M5000 & CH2300 for DOE's field survey/32/ and via on-site interview found out that all the ICS which are picked up for sampling are installed at the household and were in working condition, which was consistent with the CME's sample survey result.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview. The verification team has also checked the monitoring survey results /18/ vis-à-vis the DOE site visit samples and found that the results are comparable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not applicable
Findings	No finding was raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

1.4.2.4. The fraction of end users that are still using baseline (replaced) stoves, f_{old} , Fraction

Means of verification	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									
	Monitoring equipment	Survey questionnaire									
	Calibration frequency /interval:	Not applicable									
	How were the values in the monitoring report verified?	<p>The values in the MR have been verified from the survey questionnaire in the monitoring survey records/18/. The survey questionnaire are based on the interviews of selected sample households in which the ICS are implemented and functioning.</p> <table border="1"> <thead> <tr> <th>Stove model</th> <th>Value</th> <th>CPA Ref. No.</th> </tr> </thead> <tbody> <tr> <td>M5000</td> <td>0.130</td> <td>5342-0004</td> </tr> <tr> <td>CH2300</td> <td>0.000</td> <td>5342-0005</td> </tr> </tbody> </table> <p>The parameter f_{old} was measured ex-post by estimation of a representative sample of end users using the deployed ICS, as conducted in line with the PoA Sampling Plan.</p> <p>Sampling estimated the value of this parameter through monitoring the fraction of end users not using baseline</p>	Stove model	Value	CPA Ref. No.	M5000	0.130	5342-0004	CH2300	0.000	5342-0005
	Stove model	Value	CPA Ref. No.								
M5000	0.130	5342-0004									
CH2300	0.000	5342-0005									

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		<p>stoves (f_{non-old}),</p> <p>Based on the registered CPA-DD, the fraction of users not using the baseline stoves (f_{non,old}) has been monitored. Then fold has been calculated as 1 – f_{non-old}.</p> <p>0 out of 54 samples were found using CH2300 and baseline stove together</p> <p>7 out of 54 samples were found using M5000 and baseline stove together</p>
	If applicable, has the reported data been cross-checked with other available data?	<p>The survey results, assumptions and sales records were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet/11/ of final Monitoring Report/9/.</p> <p>The verification team randomly selected 18 samples (9 samples for each stove model) for DOE's field survey and via on-site interview found out the fraction of end users that are still using baseline (replaced) stoves, f_{old}, which was consistent with the CME's sample survey result.</p>
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview. The verification team has also checked the monitoring survey results /18/ vis-à-vis the DOE site visit samples and found that the results are comparable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not applicable
Findings	No finding was raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

1.4.2.5. The amount of woody biomass consumption that is consumed through the continued use of old stoves, μ_{old} , kg/year

Means of verification	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
	Monitoring equipment	Survey questionnaire
	Calibration frequency /interval:	Not applicable

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	<p>How were the values in the monitoring report verified?</p>	<p>The values in the MR have been verified from the survey questionnaire the survey questionnaire in the monitoring survey records /18/. The survey questionnaires are based on the interviews of selected sample households in which the ICS are implemented and functioning and baseline stove is also found in use along with ICS</p> <table border="1" data-bbox="751 353 1425 501"> <thead> <tr> <th>Stove model</th> <th>Value (kg/year)</th> <th>CPA Ref. No.</th> </tr> </thead> <tbody> <tr> <td>M5000</td> <td>3,175</td> <td>5342-0004</td> </tr> <tr> <td>CH2300</td> <td>0.000</td> <td>5342-0005</td> </tr> </tbody> </table> <p>The parameter μ_{old}, was calculated by multiplying the Total Annual Fuel Consumption, $Q_{biomass}$, by the ratio of meals cooked by the traditional stove in operation before and after purchasing the Envirofit Stove.</p> <p>The parameter value for CH2300 is deemed as zero as during monitoring survey conducted by CME, none of the CH2300 sampled user were found using baseline stoves i.e. $\mu_{old} CH2300 = 0$</p>	Stove model	Value (kg/year)	CPA Ref. No.	M5000	3,175	5342-0004	CH2300	0.000	5342-0005
Stove model	Value (kg/year)	CPA Ref. No.									
M5000	3,175	5342-0004									
CH2300	0.000	5342-0005									
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>The survey results, assumptions and sales records were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet/11/ of final Monitoring Report/9/.</p> <p>The verification team randomly selected 18 samples (9 samples for each stove model) for DOE's field survey/32/ and via on-site interview found out the Quantity of woody biomass that is still consumed by the customers using their baseline cook stoves, which was consistent with the CME's sample survey result.</p>									
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>QA/QC procedures were found to be appropriate and reliable. The person responsible for the monitoring & survey are well trained which is evident from the site visit interview. The verification team has also checked the monitoring survey results /18/ vis-à-vis the DOE site visit samples and found that the results are comparable.</p>									
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>Not applicable</p>									
<p>Findings</p>	<p>No finding was raised.</p>										
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.</p>										

1.4.2.6. Calculated average stove operation years in the monitoring period, $Stove_{year}$, Year

Means of verification	Criteria/Requirements	Assessment/Observation
	<p>Measuring /Reading /Recording frequency</p>	<p>Annual</p>

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	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes									
	Monitoring equipment	PoA Distribution and Monitoring Database(sales database)									
	Calibration frequency /interval:	Not applicable									
	How were the values in the monitoring report verified?	<p>The values in the MR have been verified from PoA Distribution and Monitoring Database included in the ER sheet /11/. Each ICS entered into the PoA Distribution and Monitoring Database was linked to a distribution date (recorded during distribution). Thus, for any monitoring period it is possible to calculate the period of time that the stoves included in the emissions reduction calculations for that period have been operating. Calculated average stove operation years in the monitoring period. If stoves have been operating for 365 days then Stoveyear = 1.0. If less than 365 days, then Stoveyear is represented as a fraction of 365 (e.g., 180 days= 0.5).</p> <table border="1" data-bbox="746 891 1428 992"> <thead> <tr> <th>Stove model</th> <th>Value</th> <th>CPA</th> </tr> </thead> <tbody> <tr> <td>M5000</td> <td>0.98</td> <td>5342-0004</td> </tr> <tr> <td>CH2300</td> <td>0.99</td> <td>5342-0005</td> </tr> </tbody> </table>	Stove model	Value	CPA	M5000	0.98	5342-0004	CH2300	0.99	5342-0005
Stove model	Value	CPA									
M5000	0.98	5342-0004									
CH2300	0.99	5342-0005									
	If applicable, has the reported data been cross-checked with other available data?	The sales records were checked by the verification team and were found acceptable. The results are reproducible in the corresponding ER sheet/11/ of final Monitoring Report/9/.									
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC procedures were found to be appropriate and reliable. The sales database was regularly checked by the Director in order to ascertain that there were no errors while recording the ICS information in the sales database w.r.t the cook stove serial numbers, name of the owner, location etc. This has been verified during the site visit by the verification team by interviewing the Director & the person responsible for the data recording (MIS). No error was identified by verification team pertaining to the sample selected for visit.									
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not applicable									
Findings	No finding was raised.										
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.										

I.4.3. Implementation of sampling plan

Means verification	of The monitoring has been carried out in accordance with the monitoring plan contained in the revised approved PoA DD /1/ and CPA DDs /03, 04/.
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The monitoring period covered the period between and including 25/10/2015 – 24/10/2016.

A single sampling plan was carried out across all specific-case CPAs covered in this monitoring period. 02 CPAs viz., 5342-0004 and 5342-0005 were covered in the single sampling plan.

Sampling Design/Target Population/Sampling Frame/Reliability:

A simple random sampling method was used by PP, which is in line with the monitoring plan of the PoA DD (Section B.7.2) and the respective CPA-DDs. In a single sampling design both the CPAs were included together under the current monitoring period. The sampling approach considered confidence level and precision as 95/10 in line with the requirement of Standard for “Sampling and Surveys for CDM Project Activities and Programme of Activities” version 7/16/.

As per page 53 of the PoA-DD/1/, for the parameter η_{new} , the population of each stove model shall be deemed homogeneous across CPAs as the stoves have been designed to meet stringent efficiency specifications and are manufactured in factories to specification. The PP therefore has calculated sample size for η_{new} considering each stove model as separate population. As per page 53 and page 57 of the PoA-DD, for other parameters (SOF, fold, μ old), the homogeneity of the population was demonstrated in compliance with the following conditions;

Homogeneity condition	Characteristic of Population	Status of population	Verification team conclusion
Country	all units have been distributed in the same geographical area, i.e. Nigeria/32/	homogeneous	Ok, based on assessment of stove sales database for CPA 5342-0004 and 5342-0005, all stove units have been distributed within Nigeria.
Fuel Type – charcoal / wood fuel	There are two fuel type in the population: Charcoal and woodfuel./32/	Charcoal stoves have been considered as one sampling frame and wood fuel stove have been considered as other sampling frame.	Ok, considering charcoal stove and woodfuel stoves in separate sampling frames is in line with registered sampling plan and is deemed appropriate by the verification team.
End user – domestic / small-medium enterprises / community	all units are for domestic (household) usage as per their design/32/	Homogeneous within each sampling frame	Ok, the stoves models are small portable stoves suited for domestic usage only by virtue of their design. During the verification site visit the assessment further confirmed that the usage of the stoves was for domestic purposes through interviews of sampled households.
Stove Type - efficiencies	There is only one model under each sampling	Homogeneous within each	Ok

are in a similar range defined as being within +/-10% of each other and they have other common design features	frame (for charcoal it is CH2300 and for woodfuel it is M5000)	sample frame	
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Sampling Method:

Simple Random Sampling approach was used and samples were randomly selected from the designated sampling frames which included all ICS disseminated up to the end of the monitoring period. To ensure a random selection of ICS, random number generators was applied. Each ICS in the target sampling frame is uniquely identifiable by its unique ID number. Each ICS was allocated a Sample Selection Number, starting at 1 and increasing up to the total number of ICS in the pre-defined sampling frame. Applying the random number generators, the ICS were randomly chosen from the defined sampling frame up to the required sample size as calculated by the CME.

Sample Size (Required and Actual) for Parameter of Interest:

The sampling is applied to the following monitoring parameters:

1. The thermal efficiency of the ICS distributed (%): $\eta_{new,y}$
2. The Stove Operating Fraction, i.e. the fraction of users using the ICS: SOF
3. The fraction of stove users still using baseline (replaced) stoves: f_{old}
4. The amount of woody biomass that continues to be used in the replaced stoves (kg) : μ_{old}

In order to calculate the sample size estimates, the expected parameter values (mean, standard deviation and proportion) were determined based on project developer’s knowledge and experience as per para 12(b) and 12(c) of the “Standard: Sampling and surveys for CDM project activities and programmes of activities”, Version 7

The required sample sizes were correctly derived using equation (1) on page 68 and equation (4) on page 70 of the Guideline: Sampling and surveys for CDM project activities and programmes of activities, Version 04.0/17/ for proportion based and mean based parameters respectively as follows:

$$n = \frac{z^2 \cdot N \cdot V}{(N - 1) \cdot c^2 + z^2 \cdot V}$$

$V = (\frac{SD}{Mean})^2$ for mean parameters

$V = p \cdot (1 - p)/p^2$ for proportion parameters

Where:

n = sample size

N = population size

z = Confidence value constant (1.96 for 95%)

c = Desired precision (10%)

SD = expected standard deviation for mean parameter

$Mean$ = expected mean for mean parameter

p = expected proportion for proportion based parameter

Also, the use of t-distribution formula in line with paragraph 13 of the Standard: Sampling and surveys for CDM project activities and programmes of activities, version 7 was correctly applied in case the sample size for mean parameter was

found as less than 30. The formula used for adjusted sample size calculation is similar to that specified above, however instead of z value constant, student distribution t-constant (for the given confidence) has been used as follows:

$$n = \frac{t^2 \cdot N \cdot V}{(N - 1) \cdot c^2 + t^2 \cdot V}$$

where t = Student's t-distribution constant at given confidence level. The parameters used to determine the t-constant are confidence level and degrees of freedom. The confidence level has been taken as 95%. The degrees of freedom is equal to (n-1) where n is the sample size arrived at using equation in MR (less than 30). The sample size is iterated unless the sample size value becomes stable and equal to that arrived in preceding iterations.

Based on the assumptions following calculation were done as included under ER sheet (worksheet "Sample size calculations")/11/ with reliability as 95/10 for each of the parameter.

Parameter	Total population (N)	Expected results	Required Sample Size (n)	Monitored samples
$\eta_{new,y}$ CH2300	6,557	32.0% (mean); 3.2% (SD)	7	10
$\eta_{new,y}$ M5000	947	29.0% (mean); 2.9% (SD)	7	10
SOF _{CH2300}	6,557	90%	43	57
SOF _{M5000}	947	90%	41	55
f_{old} CH2300	5901	10% ($f_{non\ old} = 90\%$)	43	54
f_{old} M5000	852	10% ($f_{non\ old} = 90\%$)	41	54
μ_{old} CH2300	590	450 kg (mean); 45.0 kg (SD)	7	0
μ_{old} M5000	85	2470 kg (mean); 247 kg (SD)	7	7

It is noteworthy that $\mu_{old\ CH2300}$ is used to determine the usage of baseline stove along with ICS, if applicable, for discounting B_{old} in line with para 20(b) of methodology AMS II.G. version 3.0/7/. This parameter needs to be monitored only when the sampled users are found using baseline stoves along with ICS. In case of CH2300 all samples monitored were found using ICS only and no sample was found using baseline stove along with ICS. Hence the parameter $\mu_{old\ CH2300}$ has been considered not relevant for the concerned monitoring period by the PP. Initially the sample size for $\mu_{old\ CH2300}$ was calculated based on an initial assumption of f_{old} as 10% (i.e. 10% pf users might be using baseline stove and ICS together). However, as the monitoring revealed that baseline stove users do not exist, the parameter is rendered redundant for the concerned monitoring period. Same was also verified during the sample site visit/32/ by the verification team and found to be consistent with the information provided by the CME.

Data was collected for SOF, f_{old} and μ_{old} following a specially design survey form/19/. As for the thermal efficiency of the stoves, WBTs were conducted using WBT protocol as given by GACC/20/. Refer ER calculator worksheet/11/ "Monitoring Survey summary" and "WBT Summary" for details on data collected during monitoring. In this regard, worksheet "sample size calculations" /11/ was checked and found to be correct as per registered monitoring plan.

In the ER sheet, analysis of the data monitored through sampling revealed the following results:

Parameter	Results	Unit
$\eta_{new,y}$ CH2300	32.37	%
$\eta_{new,y}$ M5000	28.21	%
SOF _{CH2300}	0.947	fraction
SOF _{M5000}	0.982	fraction
f_{old} - CH2300	0.000	fraction
f_{old} - M5000	0.130	fraction
μ_{old} - CH2300	0.000	tonnes / year
μ_{old} - M5000	3.1757	tonnes/ year

The following tables demonstrate the status of precision/confidence for each of the monitored parameters

$\eta_{new,y}$ CH2300	32.37%	
total number of stoves	6,557	CPA Installation Databases
Samples monitored for (η_{new} CH2300)	10	WBT data
Mean	32.37%	Calculated
Standard Deviation	0.79%	Calculated
Standard error of mean (η_{new} CH2300)	0.25%	Calculated
Precision for η_{new} CH2300	1.74%	Calculated
Reliability check	<10%	OK, acceptable.

$\eta_{new,y}$ M5000	28.21%	
total number of stoves	947	CPA Installation Databases
Samples monitored for (η_{new} M5000)	10	WBT data
Mean	28.21%	Calculated
Standard Deviation	0.80%	Calculated
Standard error of mean (η_{new} M5000)	0.25%	Calculated
Precision for η_{new} M5000	2.01%	Calculated
Reliability check	<10%	OK, acceptable.

SOF_{CH2300}	0.947	
Population Size	6,557	CPA Installation Databases
Samples monitored	57	Calculated
Proportion for SOF _{CH2300}	0.947	Calculated
Standard error of proportion for SOF _{CH2300}	2.94%	Calculated
Precision for SOF _{CH2300}	6.09%	Calculated
Reliability check	<10%	OK, acceptable.

SOF_{M5000}	0.982	
Population Size	947	CPA Installation Databases
Samples monitored	55	Calculated
Proportion for SOF _{M5000}	0.982	Calculated
Standard error of proportion for SOF _{M5000}	1.75%	Calculated
Precision for SOF _{M5000}	3.49%	Calculated
Reliability check	<10%	OK, acceptable.

As per paragraph 11(a) of the Standard - Sampling and surveys for CDM project activities and programmes of activities, $f_{non\ old}$ has been determined through sampling and f_{old} has been determined as $f_{old} = 1 - f_{non\ old}$.

f_{old} CH2300	0.000	
Population Size	6212	CPA Installation Databases
Samples monitored	54	Calculated

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	Proportion for $f_{\text{non old CH2300}}$	1.000	Calculated
	Standard error of proportion for $f_{\text{non old CH2300}}$	0.00%	Calculated
	Precision for $f_{\text{non old CH2300}}$	0.00%	Calculated
	Reliability check	<10%	OK, acceptable.
	$f_{\text{old M5000}}$		
	$f_{\text{old M5000}}$	0.130	
	Population Size	930	CPA Installation Databases
	Samples monitored	54	Calculated
	Proportion for $f_{\text{non old M5000}}$	0.870	Calculated
	Standard error of proportion for $f_{\text{non old M5000}}$	4.44%	Calculated
	Precision for $f_{\text{non old M5000}}$	9.99%	Calculated
	Reliability check	<10%	OK, acceptable.
	$\mu_{\text{old CH2300}}$		
	$\mu_{\text{old CH2300}}$	0.000	Tonnes/year
	Population Size	0	CPA Installation Databases
	Samples monitored	0	Calculated
	Mean for $\mu_{\text{old CH2300}}$	-	Calculated
	Standard Deviation $\mu_{\text{old CH2300}}$	-	Calculated
	Standard error of mean $\mu_{\text{old CH2300}}$	-	Calculated
	Precision for $\mu_{\text{old CH2300}}$	-	Calculated
	Reliability check	<10%	OK, acceptable.
	$\mu_{\text{old M5000}}$		
	$\mu_{\text{old M5000}}$	3.1757	Tonnes/year
	Population Size	121	CPA Installation Databases
	Samples monitored	7	Calculated
	Mean for $\mu_{\text{old M5000}}$	0.64	Calculated
	Standard Deviation $\mu_{\text{old M5000}}$	0.06	Calculated
	Standard error of mean $\mu_{\text{old M5000}}$	2.31%	Calculated
Precision for $\mu_{\text{old M5000}}$	7.07%	Calculated	
Reliability check	<10%	OK, acceptable.	
<p>All parameters of interest included in the Sample Size Calculator spread sheet/11/ were checked for the input values as well as formula applied and were found consistent. The reliability (demonstration of precision achieved after the survey results) is depicted in the ER sheet /11/ corresponding to final Monitoring Report /9/, which were also found correct. Based on the verified results the verification team found that the required precision is met in all the cases and therefore the WBT / survey results /18/ were directly used in the calculation of ERs.</p>			
Findings	CAR#02, CAR#03 were raised and resolved..		
Conclusion	The verification team confirmed that the sampling plan and the parameter values are in accordance with the monitoring plan provided in PoA DD /01/.		

I.5. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Details of the equipment used for WBT are as provided below	
	Equipment	Calibration Details
	Mini-thermometer:	Calibration conducted on 12/01/2017

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	Brand: Omega Model: Omegaette HH308 Type K Accuracy: +/- 0.3% reading +1°C Number of units: 02 S/N:141203660 and 141203675	by third party Sonic Quality Inspectors Ltd. The validity of calibration is 1 year. The devices were duly calibrated prior to the monitoring survey period reported in MR.
	Mass balance Brand: LW Measurements Model: MCT-33 Plus Accuracy: +/- 2 division, +/- 0.002 lbs Number of units: 02 S/N: MCP1408033 and MCP1408035	Has an in-built calibration software called as ANYCAL as confirmed from the same from the specification sheet for the weighting scale which mentions that the unit has an auto-calibration feature using ANYCAL software. The user manual has been checked by the verification team to confirm the same.
	Moisture Meter Brand: Delmhorst Model: J2000 Accuracy: +/- 0.2% Number of units: 1 S/N: 38784	The moisture meter (Delmhorst J2000) has a calibration checking feature in-built into it. As per the manual/25/, once the calibration check button is pressed, the screen shall show a reading of 12.0. A value of 12.0 confirms that the meter is under calibration and good for use/31/. If the screen does not show a reading of 12.0 it must be sent to Delmhorst for re-calibration. The snapshot of the screen (showing a reading of 12.0) taken before the start of tests has been checked by the verification team.
The verification team has checked the user manual of the respective monitoring equipment and found calibration requirement met. Therefore, the verification team confirms that the measurements were done with calibrated devices.		
Findings	CL#01 was raised and resolved.	
Conclusion	The verification team confirm that CME applied good practice by for data collection & sampling survey and the equipment's used by the third party for sample surveyed are duly calibrated.	

I.6. Assessment of data and calculation of emission reductions or net removals

I.6.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	The verification team verified that a) A complete set of data for the monitoring period was available for the monitoring period and the verification of each monitoring parameter is elaborated under Section I.4.2 of this report. The complete monitoring data is also presented in the corresponding ER calculations sheet /11/ of final Monitoring Report /09/. b) The information provided in the monitoring report was cross checked with other sources, wherever appropriate and available, and such information is also included under Section I.4.2 of this report. . c) The calculations of baseline emissions as presented in the corresponding ER calculations sheet /11/ of final Monitoring Report /09/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan of each relevant CPA-DD, PoA-DD and the applied methodology. d) All assumptions used in the emission calculations were found appropriate and therefore justified e) Appropriate emission factors, IPCC default factors and other reference values have been correctly applied. This has also been elaborated under Section I.4.1 of this report. f) No standardized baseline was prescribed in the PoA DD and therefore it has
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	<p>not been applied.</p> <p>g) There is no pro-rate approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol.</p> <p>The following equations were used to determine the baseline emissions as provided in the monitoring report /09/ and applied in the corresponding ER calculations sheets /11/. The expressions used were found consistent with the revised PoA-DD, CPA-DDs and the applied methodology AMS-II.G, version 03:</p> <p>Total ER reductions achieved for any CPA is calculated using the following expressions:</p> $ER_y = B_{y,savings} \cdot f_{NRB} \cdot NCV_{biomass} \cdot EF_{projected\ fossil\ fuel}$ $B_{y,savings} = B_{old} \cdot \left(1 - \frac{\eta_{old}}{\eta_{new}}\right)$ $B_{old} = LAF \cdot N_{all} \cdot SOF \cdot \left(Q_{biomass} - \left(\frac{\mu_{old}}{1000} \cdot f_{old}\right)\right) \cdot Stove_{year}$ <p>It has been verified that the corresponding ER calculations sheet /11/ to the final Monitoring Report /09/ has considered the number of stoves as per the vintage and accordingly the efficiency of such stoves in the ER calculation for relevant CPA.</p>
Findings	No finding was raised.
Conclusion	<p>The verification team confirms that</p> <p>a) The complete data was available and is duly reported;</p> <p>b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section I.4.2 of this report);</p> <p>c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals were followed;</p> <p>d) Appropriate emission factors, IPCC default factors and other reference values were correctly applied.</p> <p>e) There is no pro-rate approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol.</p>

I.6.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	The PoA DD, CPA DD and applied monitoring methodology does not prescribe any project emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised.
Conclusion	No project emissions were required to be calculated.

I.6.3. Calculation of leakage GHG emissions

Means of verification	The PoA DD, CPA DD and applied monitoring methodology does not prescribe any leakage emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard. However, the leakage adjustment factor that is required to adjust the baseline emissions has been duly accounted in baseline calculations.
Findings	No finding was raised.
Conclusion	No additional leakage emissions (other than what is already considered in baseline calculations) were required in accordance with the methodology AMS-II.G, version 03 /07/.

I.6.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	As discussed in the above sections, the entire emission reductions from the PoA were based on baseline emissions. The calculations presented in this regard in the final monitoring report /09/ and corresponding ER calculations sheet /11/ were found appropriate and complying with the provisions prescribed in the registered
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	monitoring plan of respective CPA-DD, PoA-DD and applied methodology. The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.
Findings	No finding was raised.
Conclusion	The verification team confirms that a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section I.4.2 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed; d) Appropriate emission factors, IPCC default factors and other reference values were correctly applied. e) There is no pro-rata approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol. The total number of ERs achieved during the current monitoring period (for ICS only) is 22,044tCO ₂ e.

Specific-case CPA reference number	Baseline emissions or baseline net GHG removals by sinks (tCO ₂ e)	Project emissions or actual net GHG removals by sinks (tCO ₂ e)	Leakage (tCO ₂ e)	GHG emission reductions or net GHG removals by sinks (tCO ₂ e)		
				Results achieved in the period up to 31 December 2012	Results achieved in the period from 1 January 2013 onwards	Results achieved in the entire monitoring period
5342-0004	2,593	0	0	0	2,593	2,593
5342-0005	19,451	0	0	0	19,451	19,451
Total	22,044	0	0	0	22,044	22,044

I.6.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included specific-case CPA

Means of verification	As verified from the final Monitoring Report /09/ and corresponding ER calculations sheet /11/, the actual emission reductions achieved by each CPA that is included in the current monitoring period were found to be less than the estimated quantity in the respective CPA-DD for the comparable period.
Findings	No finding was raised.
Conclusion	The actual emission reductions achieved in specific CPA were not higher than the estimated quantity of ERs in the respective CPA-DD. Therefore, it was accepted by the verification team.

Specific-case CPA reference number	Value estimated in ex ante calculation in the included specific-case CPA-DD(s)	Actual values achieved by the specific-case CPA(s) during this monitoring period
5342-0004	44,159	2,593
5342-0005	44,159	19,451
Total	88,318	22,044

I.6.6. Remarks on difference from estimated value in registered PDD

Means of verification	The achieved emission reductions were less than the estimated ERs in the CPA DD. Thus, no further explanation was sought by verification team.
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Findings	No finding was raised.
Conclusion	The achieved ERs were less than the estimated amount for the comparable period.

Appendix 1. Abbreviations

Abbreviations	Full texts
AQL	Acceptable Quality Level
CAR	Corrective Action Request
CDM	Clean Development Mechanism ¹⁷ ,
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
CEP	Clean Energy Product
CER	Certified Emission Reduction
CL	Clarification Request
CME	Coordinating or Managing Entity
CP	Crediting period
CPA	Component Project Activity
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIL	Envirofit International Ltd
EF	Envirofit
EPTP	Stove Manufacturers Emissions and Performance Test Protocol
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GACC	Global Alliance for Clean Cookstoves
GHG	Greenhouse Gas(es)
ICS	Improved Cook Stove
IPCC	Intergovernmental Panel on Climate Change
PoA-DD	Programme of activities Design Document
PPT	PowerPoint Presentation
RMP	Registered monitoring plan
SQIL	Sonic Quality Inspectors Limited
TA	Technical Area (with in Sectoral Scope)
TR	Technical Reviewer
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Level
VVS	Validation and Verification Standard
WBTs	Water Boiling Tests

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	15 Years +		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C. AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.AV., ACM0002, ACM0004, ACM0006, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Abhishek Mahawar	Date	08/09/2016
Approved by	Kaviraj Singh	Date	08/09/2016

Competence Statement			
Name	Ms. Adeola Ijeoma Eleri		
Country	Nigeria		
Education	Certificate in Energy and Sustainable Development (IIIEE, Sweden) M.Sc. (Environmental Biology) B.Sc. (Microbiology)		
Experience	8 Years		
Field	Climate Change, Energy & Environment		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	YES (Nigeria)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	NO		
Reviewed by	Abhishek Mahawar	Date	07/09/2016
Approved by	Ashok Kumar Gautam	Date	07/09/2016

Competence Statement			
Name	Abhishek Mahawar		
Country	India		
Education	B. Tech. (Chemical Engineering) MBA (Finance)		
Experience	8 Years +		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D and ACM0002		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (1.2)		
Reviewed by	Ashok Gautam	Date	07/09/2016
Approved by	Kaviraj Singh	Date	07/09/2016

Competence Statement			
Name	Sanjeev Kumar		
Country	India		
Education	B. Tech. (Chemical Engineering) M.Tech. (Energy Management)		
Experience	13 years		
Field	Climate Change, Environment, Energy		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMD ID, ACM0002, ACM0006, AMSID, AMS IF, AMSIC, AMS IA, ACM004, AM0009, AMSIID, AMSIIE, ACM0004, ACM0009, ACM0012, AM0008, ACM0001, AM0013, AM0025, AMSIIH)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	Date	06/07/2017
Approved by	Ashok Kumar Gautam	Date	06/07/2017

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the	Provider
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CDM-PoA-VCR-FORM

			document	
1	EIL EIL	Registered PoA-DD Revised accepted PoA-DD	V 3.2 dated 27/11/2012 V 4.3, dated 07/06/2014	Other
2	GL CarbonCheck	Validation Report (registered PoA-DD) Revised Validation Report PRC	V11, dated 05/12/2012 V 3, dated 11.06/2014	Other
3	EIL	CPA DD Ref. No. 5342-0004	V 6.1, dated 11/09/2014	Other
4	EIL	CPA DD Ref. No. 5342-0005	V 6.1, dated 11/09/2014	Other
5	CarbonCheck	CPA #4 validation report	V04, dated 23/09/2014	Other
6	CarbonCheck	CPA #5 validation report	V04, dated 23/09/2014	Other
7	UNFCCC	Methodology AMS II G,	Version 3	Other
8	EIL	Monitoring report (Publication)	V1, dated 12/05/2017	CME
9	EIL	Monitoring report (Final version)	V 3.0, dated 19/07/2017	CME
10	EIL	ER calculation sheet (Initial)	Pertaining to initial MR	CME
11	EIL	ER calculation sheet (Final)	Pertaining to final MR	CME
12	IPCC	IPCC Defaults	2006	Other
13	UNFCCC	CDM VVS	Version 9	Other
14	UNFCCC	CDM PS	Version 9	Others
15	UNFCCC	CDM PCP	Version 9	Others
16	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities	7	Others
17	UNFCCC	Guideline: Sampling and surveys for CDM project activities and programme of activities	4.0	Others
18	EIL	Monitoring Survey Records (CME)	-	CME
19	EIL	Nigeria Monitoring Survey Questionnaire template	-	CME
20	EPTP	WBT Test Protocol (Stove Manufacturers Emissions and Performance Test Protocol)	-	CME
21	EIL	WBT Tests – ICS Model M5000	Primary Record + Sheet	CME
22	EIL	WBT Tests - ICS Model CH2300	Primary Record + Sheet	CME
23	EIL	ICS Model CH2300 Technical Specifications	-	CME
24	EIL	ICS Model M5000 Technical Specifications	-	CME
25	Delmhorst	Delmhorst J2000 moisture meter manual	-	CME
26	SQIL	Calibration Certificate (Mini Thermometer)	-	CME
27	SQIL	Calibration Certificate (Mini Thermometer)	-	CME
28	H & C Weighing systems	Weighing scale LW measurements MCT plus 33 specifications - auto calibration	-	CME
29	EIL	Monitoring Survey Training Presentation	-	CME
30	EIL	Carbon Waiver 3 - CPA Distribution Record	-	CME
31	EIL	Snap shot of Scale showing reading showing feed of 12	-	CME
32	ESPL	DOE filed survey results	-	Other
33	UK Govt.	https://www.gov.uk/foreign-travel-advice/nigeria	Checked on 10/06/2017	Other
34	US Govt.	https://travel.state.gov/content/passports/en/alertswarnings/nigeria-travel-warning.html	Checked on 10/06/2017	Other
35	ESPL	Verification Report MP03B02	27/01/2017	Others
36	UNFCCC	MR FORM		

Appendix 4. Clarification requests, corrective action requests and forward action requests

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

There is no finding from validation /02, 05, 06/ and previous verification /35/.

Table 2. CL from this verification

CL ID	01	Section no.	1.5	Date :05/07/2017
Description of CL				
The calibration details (validity at the time of monitoring survey conducted by CME) of the monitoring devices used by are not clear. The equipment details (S. No.) and corresponding record is to be provided.				
Project participant response				Date :10/07/2017
<p>The information on equipment used for conducting WBT has been incorporated in the MR.</p> <p>The moisture meter (Delmhorst J2000) has a calibration checking feature in-built into it. As per the manual, once the calibration check button is pressed, the screen shall show a reading of 12.0. A value of 12.0 confirms that the meter is under calibration and good for use. If the screen does not show a reading of 12.0 it must be sent to Delmhorst for re-calibration. The snapshot of the screen (showing a reading of 12.0) taken before the start of tests has been shared with the DoE.</p> <p>Similarly, the MCT-33 Plus weighing scales used have an in-built calibration software called as ANYCAL. The specification sheet for the weighting scale mentions that the unit has an auto-calibration feature using ANYCAL software.</p> <p>The thermometers used for WBT (Omegaette HH308) were externally calibrated on 12 Jan 2017. The calibration certificates have been submitted. The validity of calibration is one year.</p>				
Documentation provided by project participant				
5342_MP#2 MR version 2.0 10072017 Nigeria MP#2 ER calculations v2.0 10072017 Moisture Meter - Delmhorst J2000 Serial number snapshot Moisture Meter - Delmhorst J2000 Manual Moisture Meter - Delmhorst J2000 Accuracy (email from manufacturer) Moisture Meter - Delmhorst J2000 Calibration evidence Thermometer – Omegaette HH308 Serial Number snapshots for two units Thermometer – Omegaette HH308 Calibration Certificates for two units Thermometer – Omegaette HH308 Specification sheet Weighing scale - MCT plus 33 serial number snapshots for two units Weighing scale - MCT plus 33 specification sheet – auto-calibration				
DOE assessment				Date :17/07/2017
The information provided in the revised MR and review of the evidences provided for various monitoring devices confirms that the information in clear in this regard and all devices were fit/calibrated prior to its use in the monitoring survey carried out for the current monitoring period. CL#01 was closed out.				

Table 3. CAR from this verification

CAR ID	02	Section no.	1.4.3	Date :05/07/2017
Description of CL				
Concern: Adequacy of Monitoring Survey Questionnaire to capture the required level of details 1) If the answer to Question 16, is yes, which implies that both project ICS and traditional Cookstove are being used by the household. How such records are being duly discounted in accordance with the applied methodology against which the PoA is registered? <i>“16) If yes, do you use the Traditional Stove for cooking meals?”</i>				
Project participant response				Date : 10/07/2017

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As per the registered monitoring plan in the PoA-DD (section E.7.1, page 39) the fraction of end users that are still using baseline (replaced) stoves i.e. parameter f_{old} , is to be monitored. The question 16 addresses the aforesaid requirement, being applicable to only those samples who have reported using the Envirofit ICS. Thus, any sampled user that has reported using both Envirofit ICS and the baseline stove has been considered for determination of f_{old}

$$f_{old} = \frac{\text{Number of sampled users reporting using both ICS and baseline stove}}{\text{Total number of sampled users reporting using ICS}}$$

It is worth noting here that those samples who have reported not using Envirofit ICS have already been discounted from ER calculations under the monitoring parameter SoF (Stove Operating Fraction, section E.7.1 page 38 of the PoA-DD), hence for such users question 16 is not applicable.

Further, the users that have reported using both Envirofit ICS and the baseline stove (through question 16) are further questioned to determine the parameter μ_{old} (The amount of woody biomass consumption that is consumed through the continued use of old stoves) as per section E.7.1 page 38 of the PoA-DD

Option A as specified on page 41, section E.7.2, page 41 of the PoA-DD has been used to determine the value of the monitoring parameters.

$$\mu_{old} = \frac{MPM_{after\ ICS}}{MPM_{before\ ICS}} * Q_{biomass}$$

This is being determined via questions 17-20 of the monitoring survey questionnaire form which enquires about the number of meals cooked before and after ICS intervention on the traditional stove. Again, question 17-20 are applicable to only those samples who have reported using baseline stove in against question 16.

Subsequently, both these parameter values are used to adjust B_{old} in accordance with the equation mentioned on page 33, section E.6.2 of the PoA-DD.

Documentation provided by project participant

5342_MP#2 MR version 2.0 10072017

Nigeria MP#2 ER calculations v2.0 10072017

DOE assessment

Date:17/07/2017

The explanation provided by the CME and its application in the ER sheet was found to be complying with the registered monitoring plan of PoA DD. Therefore, CAR#02 was closed out.

CAR ID	03	Section no.	1.4.3	Date	:05/07/2017	
Description of CL						
Concern: Appropriateness of Reliability (actual Precision achieved) and ER calculations						
<ol style="list-style-type: none"> 1) How the 6 households (out of which only 3 reported that these are being used as back up) that have reported to possess another Envirofit ICS, which may use wood and charcoal, are being discounted in ER calculations, considering the responses received for this household were used to determine the value of some monitored parameters 2) One of the household reported that project ICS was not present at the time of survey by CME (reason not known/reported) but it has been added to monitored number of samples (for CH2300). In absence of any response to questions pertaining to parameter monitoring, how it has been appropriately discounted in ER calculations. 						
Project participant response					Date	: 10/07/2017

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- 1) As per the registered monitoring plan, section E.7.1, page 37/38, if a second ICS is found during monitoring in a household, one of the two ICS will be excluded from database (i.e. only one ICS in such cases should claim ERs). The samples where more than one ICS has been found, shall not be discounted completely, but only the second / subsequent ICS (over and above 1 unit of ICS) needs to be discounted. Hence, these samples can be used for calculation of other parameters as valid samples. N_{all} = Total number of stoves installed discounted by the % ratio of the additional ICS (over and above 1 unit) found in the samples monitored. The formula for calculation of N_{all} has been revised to reflect the aforesaid. There was an error in the calculation of N_{all} which has also been revised (linking the formula till row 114 instead of earlier linked till row 111)
- 2) The household that reported absence of ICS during survey has been considered as a stove drop off (non-usage) sample. The SoF has been calculated as follows:

$$SoF = \frac{\text{Number of samples reporting using ICS (answer to question 13 is Yes)}}{\text{Total number of samples monitored}}$$

Thus, any user reporting not using EF stove or reporting not having presence of EF stove has been discounted under SoF as a conservative measure.

Documentation provided by project participant	
5342_MP#2 MR version 2.0 10072017 Nigeria MP#2 ER calculations v2.0 10072017	
DOE assessment	Date: 17/07/2016
<ol style="list-style-type: none"> 1) The response provided by CME was found consistent with the registered PoA DD and therefore issue was closed out. 2) The response was found consistent with corresponding ER sheet and therefore issue was closed out. 	
CAR#03 was closed out.	

CAR ID	04	Section no.	Others	Date :05/07/2017
Description of CL				
Concern: Completeness of monitored data/information Column 'V' in worksheet "Monitoring Survey Summary" has not reported any answer (or reason) for few monitored ICS				
Project participant response				Date : 10/07/2017
Column V corresponds to the question "Do you use Traditional stove for cooking?". This is applicable only for those samples who have reported using Envirofit ICS against question number 13 ("Do you use Envirofit ICS for cooking?"). Thus, for all samples that have reported not using the Envirofit ICS, this question is not applicable and has been left blank.				
Documentation provided by project participant				
5342_MP#2 MR version 2.0 10072017 Nigeria MP#2 ER calculations v2.0 10072017				
DOE assessment				Date: 17/07/2017
The explanation provided by CME was found satisfactory. Therefore, CAR#04 was closed out.				

CAR ID	05	Section no.	1.4.2	Date :05/07/2017
Description of CL				
Concern: Errors/Typos/Explanations				
<ol style="list-style-type: none"> 1) Some notations in worksheet "ER calculations" are not visible (please refer yellow highlight) 2) The expression applied to determine N_{all} and $STOVE_{year}$ is not given/explained "refer worksheet ER calculations" 3) The WBT sheets provided for ICS efficiency determination applied more than one values as local boiling point e.g., (but not limited to) EC1H091029 in the same worksheet 				
Project participant response				Date :10/07/2017

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- 1) The notations not visible in the ER calculations worksheet have been revised to be visible now.
- 2) The expression used to determine N_{all} involves counting the total number of stoves installed under the CPA, discounted by the % ratio of the additional ICS (over and above 1 unit) found in the samples monitored. The expression used is as follows for M5000 stoves:

$$N_{all} = \text{Total number of M5000 installed} * (1 - \text{number of additional ICS reported by M5000 samples} / \text{total number of M5000 samples monitored})$$

Similarly, it has been calculated for CH2300 population.

In the Worksheet "CPA distribution data" in column P, $Stove_{year}$ fraction ensures that an ICS is credited only for that part of the year, post its installation, that coincides with the monitoring period. Thus, for all ICS installed before the start of monitoring period, the $stove_{year}$ value is 1.00. For those ICS which have been installed after the start of the monitoring period but before the end of monitoring period, the $stove_{year}$ fraction covers the period from the date of installation and end of the monitoring period. For all ICS installed after the end of monitoring period, if any, $stove_{year}$ value is 0. There was an error in the calculation of $Stove_{year}$ in the ER calculation worksheet which now stands corrected (The average value in ER calculation worksheet in row 28 was not linked with entire population in the "CPA Distribution data" worksheet).

- 3) The local boiling point is fixed at 98.1°C. All hardcopy WBT observation sheets report this value. There have been few typographical errors in the excel calculation sheets. The same has now been corrected.

Documentation provided by project participant	
5342_MP#2 MR version 2.0 10072017 Nigeria MP#2 ER calculations v2.0 10072017 Revised WBT based ICS Efficiency calculation sheets	
DOE assessment	Date: 17/07/2017
<ol style="list-style-type: none"> 1) The review of revised ER sheet confirms that notations are clearly legible. 2) The explanation provided was found appropriate and therefore accepted. 3) The corrections was duly reported and revised WBT sheets were found to be correct. CAR#05 closed out.	

CAR ID	06	Section no.	G.1, H.3.5	Date : 18/07/2017
Description of CL				
A previously approved PRC for the PoA was found at https://cdm.unfccc.int/PRCContainer/DB/prcp237694862/view However, there was no information provided in this regard in the MR.				
Project participant response				Date : 19/07/2017
The revised MR with updated Section C.4 is provided herewith.				
Documentation provided by project participant				
5342_MP#2 MR version 3.0 19072017				
DOE assessment				Date: 19/07/2017
The information was found duly included in the revised MR therefore, CAR#04 was closed out.				

Table 4. FAR from this verification

There is no FAR from this verification.

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	5 June 2015	Initial publication.

Decision Class: Regulatory
Document Type: Form
Business Function: Issuance
Keywords: programme of activities, verifying and certifying
