




**Verification and certification report form for
CDM programme of activities
(version 02.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the programme of activities (PoA)	Improved Cooking Stoves for Nigeria Programme of Activities (UNFCCC PoA reference number: 5067)	
Version number(s) of the PoA-DD(s) to which this report applies	Version 3.2	
Version number of the verification and certification report	Version 3	
Completion date of the verification and certification report	11/02/2019	
Monitoring period number and duration of this monitoring period	Monitoring Period Number: 06 Duration of this monitoring period: 01/07/2017 – 30/06/2018	
Number and version number of the monitoring report to which this report applies	Monitoring report number: 01 Version number: 06	
Coordinating/managing entity (CME)	atmosfair gGmbH	
Host Parties	Host Parties of the PoA	Is this a host Party to a CPA covered in this report? (yes/no)
	Nigeria	Yes
Applied methodologies and standardized baselines	AMS II.G., version 3, "Energy efficiency measures in thermal applications of non-renewable biomass"	
Mandatory sectoral scopes linked to the applied methodologies	3: Energy demand	
Conditional sectoral scopes linked to the applied methodologies, if applicable	Not applicable	
Estimated amount of GHG emission reductions or GHG removals for this monitoring period in the included CPAs covered in this report	PoA: 66,815 tCO ₂ e CPA 1: 8,952 t CO ₂ e CPA 2: 11,559 t CO ₂ e CPA 3: 11,627 t CO ₂ e CPA 4: 34,677 t CO ₂ e	
Certified amount of GHG emission reductions or GHG removals for this monitoring period for the included CPAs covered in this report	PoA: 24,806 tCO ₂ e CPA 1: 6,771 t CO ₂ e CPA 2: 6,737 t CO ₂ e CPA 3: 5,948 t CO ₂ e	

	CPA 4: 5,350 t CO ₂ e
Name and UNFCCC reference number of the DOE	Carbon Check (India) Private Ltd. E-0052
Name, position and signature of the approver of the verification and certification report	Amit Anand, CEO 

SECTION A. Executive summary

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Purpose, general description and location of the project activity:

The co-ordinating managing entity/project participant has commissioned the DOE, Carbon Check (India) Private Ltd. (CC IPL) to perform an independent verification of the CDM Programme of Activity "Improved Cooking Stoves for Nigeria Programme of Activities" in Nigeria (hereafter referred to as "Programme of Activity" or "PoA") for the CPA(s) titled "CPA # 1 Improved Cooking Stoves for Nigeria", "CPA # 2 Improved Cooking Stoves for Nigeria", "CPA # 3 Improved Cooking Stoves for Nigeria" and "CPA # 4 Improved Cooking Stoves for Nigeria". The PoA involves dissemination of improved cooking stoves to household users in Nigeria. The PoA saves greenhouse gas emissions by replacing baseline stoves with improved cookstoves. The aim of the PoA is to enhance the penetration of efficient cookstoves by offering cost-effective efficient stoves. The CPAs are designed to generate emission reductions by distribution of energy efficient or improved stoves for household cooking purposes in Nigeria.

This report summarises the findings of the verification of the project, performed on the basis of paragraph 62 of the CDM M & P, as well as criteria given to provide for consistent project operations, monitoring and reporting and the subsequent decisions by the CDM Executive Board. Verification is required for all registered CDM project activities/programme of activities intending to confirm their achieved emission reductions and proceed with request for issuance of CERs. This report contains the findings and resolutions from the verification and a certification statement for the certified emission reductions.

Verification is the periodic independent review and ex-post determination of both quantitative and qualitative information by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the registered CDM project activity/ programme of activity during a defined monitoring period.

Certification is the written assurance by a DOE that, during a specific period in time, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and certify emission reductions reported for the Programme of activities "Improved Cooking Stoves for Nigeria Programme of Activities" in the host country "Nigeria" for the period 01/07/2017 to 30/06/2018 (including both the days).

The purpose of verification is to review the monitoring results and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data, and used to confirm the reductions in anthropogenic emissions by sources, is sufficient, definitive and presented in a concise and transparent manner. CC IPL's objective is to perform a thorough, independent assessment of the registered project activity.

In particular, the monitoring plan, monitoring report and the project's compliance with the relevant UNFCCC and host Party criteria are verified in order to confirm that the component project/s has/have been implemented in accordance with the previously registered/included component project design and conservative assumptions, as documented. It is also confirmed if the monitoring plan is in compliance with the registered/approved revised PoA-DD/CPA-DDs and the approved monitoring methodology.

Scope of the verification:

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered/approved revised PoA-DD
- To verify the implemented monitoring plan with the registered PoA-DD or approved revised PoA-DD and applied baseline and monitoring methodology.

- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

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

Verification process:

The verification comprises a review of the monitoring report over the monitoring period from 01/07/2017 to 30/06/2018 and based on the registered/approved revised PoA-DD/CPA-DDs in part of the monitoring parameters and monitoring plan, emission reduction calculation spreadsheet, monitoring methodology and all related evidence provided by project participant.

On-site visit and stakeholders' interviews are also performed as part of the verification process.

Conclusion:

The verification team assigned by the DOE concludes that the PoA-DD (Version 3.2, dated 24/09/2014), CPA-DDs (CPA 1 - Version 3.2, 24/09/2014, CPA 2- Version 3.2, 24/09/2014, CPA 3 – Version 3.2, 24/09/2014 and CPA 4 – 3.2, 24/09/2014) /B04/ and the Monitoring report (version 06, dated 08/02/2019) /02/, meets all relevant requirements of the UNFCCC for CDM project activities/ programme of activities including article 12 of the Kyoto Protocol and paragraph 62 of CDM M& P, the modalities and procedures for CDM (Marrakesh Accords) and the subsequent decisions by the COP/MOP and CDM Executive Board. The verification has been conducted in-line with the CDM VVS for programme of activities requirements version 02.0 /B01-1/.

The programme of activity was correctly implemented according to the selected monitoring methodology, monitoring plan and the registered/approved revised PoA-DD/B04/. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on site visit the verification team confirms that the project activity has resulted in the 24,806 tCO₂e emission reductions during the sixth monitoring period.

CC IPL as a DOE is therefore pleased to issue a positive verification opinion expressed in the attached Certification statement.

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/document review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader/ Verifier/ Technical	IR	Dimri	Anubhav	CC IPL	X	X	X	X

	Expert							
2.	Local Expert	EI	Sunday	Siyanbola	CCIPL		X	X

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	Agarwalla	Sanjay Kumar	CCIPL
2.	Approver	IR	Anand	Amit	CCIPL

SECTION C. Application of materiality in conducting the verification

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Human Error: Recording and reporting of the information in the ER spreadsheet.	Medium	All the ER spreadsheet data of the stoves, including sales database, determination of parameter for efficiency testing including data calculation. This includes all the parameters to be monitored ex-post as per the PoA-DD/CPA-DDs.	The risk has been mitigated by the training of the personnel involved in the data capture, calculation and by following the monitoring responsibilities. The training records have been checked by the verification team /10/.
2.	Information System: Use of spreadsheets without adequate controls related to data changes/updates, version tracking, traceability, security	Medium	The data is recorded in the spreadsheets based on the raw data collected during the field visits. The access to the spreadsheets for calculation of ERs, monitoring and sales database and Stove efficiency testing records.	The identified risk has been mitigated by managing access to the records/13//09//11/. It was confirmed through interviews that the raw data is collected by the field agents and then transmitted and stored electronically to the PP's office. The data quality control is maintained by the Assigned Monitoring Officer.
3.	Accuracy of the measuring equipment and the compliance to the QA/QC procedures	Medium	Check the calibration records for the measurement equipment and the personnel/institutional capacity involved with the monitoring.	The risk due to accuracy of the measuring equipment has been ensured by planning to check calibration certificates /12-2/ /12-3/ of the measuring equipment used for stove efficiency (water boiling tests) and the training records of the personnel involved in testing the stove efficiency (water boiling tests)/10/. The monitoring personnel have been trained to conduct Water Boiling tests as confirmed through the review of the training certificates/10/.

C.2. Consideration of materiality in conducting the verification

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The threshold of materiality was evaluated based on §13 of "Guideline: Application of materiality in verifications" Version 02.0 /B05/ and § 308 of CDM VVS for PoAs, version 02.0/B01-1/. It was

concluded that the materiality threshold applicable to the project activity based on actual emission reductions achieved is 5% of 24,806 tCO₂e which is equal to 1,240 tCO₂e.

In planning the verification, verification team took cognizance of para 11 and 12 of the “Guideline: Application of materiality in verifications” Version 02.0 /B05/. A materiality threshold of 1,240 tCO₂e is determined in line with para 13(a) of “Guideline: Application of materiality in verifications” Version 02.0 /B04/.

Based on the above, activities in which risks were assessed were:

1. Monitoring system including the data input procedure
2. Copy of the agreement between household and the Project Participant (s) (origin of data)
3. Stove unique ID system
4. ER sheet (application of data)
5. Data flow
6. Data control procedures
7. Stove efficiency test (WBT) records/11//08/ and QA/QC procedures/10/12-2//12-3/

In conducting the verification, DOE took cognizance of para 13-17 of the “Guideline: Application of materiality in verifications” Version 02.0 /B05/ and based on the input of data from different sources checked through sampling of records during OSV observed that no records were found to have inconsistent data from hand written (Copy of the agreement between household and Project Participant) to the electronic monitoring database. Data flow was checked through comparison of data in hand written forms, electronic database and ER sheet. The training records of the personnel involved in conducting the stove efficiency testing, recording of data and calculation of the emission reductions data has been checked by the verification team /10/.

The risks identified were mitigated through cross check with all sets of documents. The verification team performed the following checks in order to mitigate the effects of the above-identified sources of error:

Mitigation of Human error risks: The verification team mitigated the risk by checking the training records /10/ of the personnel during the on-site visit. These records have been provided to the verification team by the PP. Furthermore, data was crosschecked with the ER calculation spreadsheet /04/, sales and monitoring database/13/ and the raw data questionnaire /09/. Verification team, based on the above, confirms that the risk is appropriately mitigated.

Mitigation due to error in Information system: Verification team by conducting interviews with the personnel responsible for such activities mitigated the risk due to error in information system. It was confirmed through interviews that the raw data is collected by the field agents and then transmitted and stored electronically to the PP’s office. The data quality control is maintained by the Assigned Monitoring Officer from the PP.

Accuracy of the measuring equipment: The risk due to inaccuracy in measurements is assessed by reviewing calibration certificates of all the project equipment. The verification team has reviewed the dates of calibration and to check whether all equipment is being calibrated at regularly defined intervals as per the registered PDD /B04/. The risk due to the QA/QC procedures is mitigated through the training/10/ of personnel involved in the WBT. The results of the WBT are verified by a third-party researcher.

Based on the review of the PDD /B04/, monitoring report /02/, emission reduction calculation spread sheet /04/ and the data provided and the assessment carried out above, CCIPL confirms with a reasonable level of assurance that the claimed emission reductions or removals are free from material errors, omissions or misstatements.

CC IPL confirms with a reasonable level of assurance that the claimed emission reductions or removals are free from material errors, omissions or misstatements.

SECTION D. Means of verification**D.1. Desk/document review**

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The verification was performed primarily based on the review of the Monitoring report /01/ and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology. Documents reviewed or referenced during the verification are listed in Appendix 3 below.

D.2. On-site inspection

Duration of on-site inspection: 24/07/2018 to 27/07/2018				
No.	Activity performed on-site	Site location	Date	Team member
1.	An assessment of the implementation and operation of the registered project activity as per the registered PoA-DD, registered/included CPA-DDs.	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
2.	A review of information flows for generating, aggregating and reporting the monitoring parameters	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
3.	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the CPA-DDs	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
4.	A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
5.	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the CPA-DDs and the selected methodology and corresponding tool(s), where applicable	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
6.	A review of calculations and assumptions made in determining the GHG data and emission reductions	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday
7.	An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters	Nigeria	24/07/2018 to 27/07/2018	Anubhav Dimri Siyanbola Sunday

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Oshaniwa	Toyin	atmosfair gGmbH	24/07/2018 to 27/07/2018	Project implementation and operation, monitoring procedure, data and information flow, CER calculation and completeness of monitoring	Anubhav Dimri Siyanbola Sunday

					report, QA/QC Procedures, Stove Efficiency Tests procedures and records, Quality Assurance – Management and operating system	
2.	Olajide	Rachel	atmosfair gGmbH	24/07/2018 to 27/07/2018	Monitoring procedure, QA/QC Procedures, Stove Efficiency Tests, Quality Assurance – Management and operating system	Anubhav Dimri Siyanbola Sunday
3.	Olorunmaiye	Tosin	atmosfair gGmbH	24/07/2018 to 27/07/2018	Monitoring procedure, QA/QC Procedures, Stove Efficiency Tests, Quality Assurance – Management and operating system	Anubhav Dimri Siyanbola Sunday
4.	Mikolajewski	Katrin	atmosfair gGmbH	24/07/2018 to 27/07/2018	Project implementation and operation, monitoring procedure, data and information flow, CER calculation and completeness of monitoring report, QA/QC Procedures, Stove Efficiency Tests, Quality Assurance – Management and operating system	Anubhav Dimri

D.4. Sampling approach

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The sampling plan implemented by the CME is in accordance with the applied approved monitoring methodology /B02/ and the approved revised PoA-DD/CPA-DDs /B04/. The CME has appropriately performed Simple Random Sampling procedure in line with the applied methodology and best suited for this type of project. As the registered PoA-DD /B04/ mentions the option for Simple Random Sampling procedure, it is acceptable to the verification team.

The sampling survey has been carried out by the well-trained people in the atmosfair, training certificates of the personnel have been provided to the verification team /10/.

For the parameters DO_y and $N_{eaters,appliance}$ a common interview questionnaire /09/ was prepared and was used during the survey by the CME. Verification team has cross verified these sample documents during the on-site visit. For the parameter η_{new} , water boiling test has been performed and this has been checked by the verification team with the related spreadsheets and instructions and data entry forms /08/ /11/.

Assessment of sampling for CPA 1, CPA 2 and CPA 4:

PP has done a combined sampling for CPA 1, CPA 2 and CPA 4 for the current monitoring period. It is acceptable to the DOE since the make of ICS distributed under CPA 1, CPA 2 and CPA 4 is same i.e. "SAVE 80" type and also the geographical boundary is the host country Nigeria for the CPAs. Since the make of ICS under CPA 3 is different i.e. Envirofit G3300, sampling has been performed separately for CPA 3. This is in accordance to the Sampling Standard version 04.1 /B07-2/.

The resultant applied sample size by the CME for the CPA 1, CPA 2 and CPA 4 together /05/ are:

Parameters	DO_y	$N_{eaters,appliance}$	η_{new}
Estimated Sample Size	46	6	5
Applied Sample Size	46	46	5
Valid Responses	46	46	5

CME has calculated the estimated sample size /05/ from the results of last monitoring period, which is found appropriate as stated in the registered PoA-DD /B04/. A total of 46 households for the parameter DO_y and 46 for the parameter $N_{eaters,appliance}$ are surveyed. For the parameter η_{new} , WBTs were conducted for 5 samples. The sample sizes for $N_{eaters,appliance}$ and η_{new} were calculated by the PP using Student's t-distribution calculations in accordance with the General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, version 01 (EB 50 Annex 30)/B06-2/, applicable at the time of PoA registration as provided in the registered/revised approved monitoring plan. As the sample size calculated using z-values was less than 30, a sample size has been calculated using student's t-distribution. This is appropriate and is in accordance with the para 12 of the Sampling Standard, version 04.1/B07-2/ as the parameter of interest mean if less than 30, shall be calculated using Student's t-distribution.

Assessment of sampling for CPA 3:

CME has conducted sampling for CPA 3 separately as the type of improved cook stoves deployed in the CPA (i.e. Envirofit G3300) is different from the CPA 1, CPA 2 and CPA 4.

The resultant applied sample size by PP for CPA 3 /05/ is:

Parameters	DO_y	$N_{eaters,appliance}$	η_{new}
Estimated Sample Size	24	5	10
Applied Sample Size	30	30	10
Valid responses	30	30	10

The estimated sample size is 24, 5 and 5 for the parameters DO_y , $N_{eaters,appliance}$ and η_{new} respectively. A total of 30 households for the parameter DO_y and 30 for the parameter $N_{eaters,appliance}$ are surveyed. For the parameter η_{new} , WBTs were conducted for 10 samples. The sample sizes for $N_{eaters,appliance}$ and η_{new} were calculated by the PP using Student's t-distribution calculations in accordance with the General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, version 01 (EB 50 Annex 30)/B06-2/, applicable at the time of PoA registration as provided in the registered/revised approved monitoring plan. As the sample size calculated using z-values was less than 30, a sample size has been calculated using student's t-distribution. This is appropriate and is in accordance with the para 12 of the Sampling Standard, version 04.1/B07-2/ as the parameter of interest mean if less than 30, shall be calculated using Student's t-distribution.

The necessary confidence precision of 95/10 is met for all the parameters except for DO_y in CPA 1, 2 and 4. This has been cross verified by the verification team from the supporting documents submitted i.e. Sample Size Calculation /05/, Inspection Database /04/, User Interviews /09/ and Water Boiling Test Report /08//10/. CME has applied lower bound values for the DO_y parameter for the CPAs 1, 2 and 4 in line with the applied methodology AMS II.G, version 03 /B02/ and hence deemed acceptable as the required precision is not met by the sample.

During the on-site visit, verification of the CME’s sampling has been done in accordance with the clarification letter INQ-04074-EB from the CDM EB /14/. The Board allowed the CME to conduct monitoring and verification simultaneously. Since, the verification team was available during the monitoring process, the monitoring exercise was carried out by the CME in presence of the verification team. The verification team was able to verify all the households visited as part of the monitoring survey (CME’s set of records), thus the acceptance sampling as described in the steps indicated in paragraphs 27–33 of the sampling standard, version 07 /B07-1/ is not applicable in this case.

D.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	00	01	00
Remaining forward action requests from validation and/or previous verification	00	00	00
CPA(s) considered for verification and covered in this report	00	00	00
Programme of activities			
Compliance of the programme implementation with the registered PoA-DD	02	00	00
Implementation and operation of the management system	00	00	00
Post-registration changes			
<ul style="list-style-type: none"> Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline 	00	00	00
<ul style="list-style-type: none"> Corrections 	00	00	00
<ul style="list-style-type: none"> Inclusion of a monitoring plan 	00	00	00
<ul style="list-style-type: none"> Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools 	00	00	00
<ul style="list-style-type: none"> Changes to the programme design or project design 	00	00	00
<ul style="list-style-type: none"> Change of coordinating/managing entity 	00	00	00
<ul style="list-style-type: none"> Changes specific to afforestation and reforestation activities 	00	00	00
Component project activities			
Compliance of the CPA implementation with the included CPA design document	00	00	00
Post-registration changes			
<ul style="list-style-type: none"> Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline 	00	00	00
<ul style="list-style-type: none"> Corrections 	00	00	00
<ul style="list-style-type: none"> Changes to the start date of the crediting period of component project activities 	00	00	00
<ul style="list-style-type: none"> Inclusion of a monitoring plan 	00	00	00
<ul style="list-style-type: none"> Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools 	00	00	00

• Changes to the programme design of project design	00	00	00
• Changes specific to afforestation and reforestation component project activities	00	00	00
Compliance of the registered monitoring plan with the methodology including applicable tool(s) and standardized baseline	00	00	00
Compliance of monitoring activities with the registered monitoring plan			
• Data and parameters fixed ex ante or at renewal of crediting period	00	00	00
• Data and parameters monitored	01	00	00
• Implementation of sampling plan	00	01	00
Compliance with the calibration frequency requirements for measuring instruments	01	00	00
Assessment of data and calculation of emission reductions or net removals			
• Calculation of baseline GHG emissions or baseline net GHG removals by sinks	00	01	00
• Calculation of project GHG emissions or actual net GHG removals by sinks	00	00	00
• Calculation of leakage GHG emissions	00	00	00
• Summary of calculation of GHG emission reductions or net GHG removals by sinks	00	00	00
• Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included CPA	00	01	00
• Remarks on difference from estimated value in included CPA	01	00	00
Assessment of reported sustainable development co-benefits	00	00	00
Global stakeholder consultation	00	00	00
Others (please specify)	00	00	00
Total	05	04	00

SECTION E. Verification findings

E.1. General

E.1.1. Compliance of the monitoring report with the monitoring report form

Means of verification	Document Review
Findings	CAR 01 had been raised in this regard and has been resolved.
Conclusion	<p>CME has used the Monitoring report form, for CDM programme of activities, Version 02.0 /B03/. Verification team confirms that the latest available version of monitoring report /01/ /02/ has been used by the CME and the MR is in compliance of the monitoring report form with the relevant form and instructions therein /B03/.</p> <p>CCIPL, had made the version 01, dated 01/10/2018 of the monitoring report /01/, covering the monitoring period from 01/07/2017 to 30/06/2018 (both days inclusive) publicly available on 09/10/2018. The site visit was conducted prior to submitting monitoring report for public availability in accordance with the clarification letter issued by the UNFCCC Secretariat /14/ before undertaking the site visit for the verification team from 24/07/2018 to 27/07/2018.</p> <p>This confirms compliance with the §337 and §338 of CDM VVS for PoAs, version 02.0 /B01-1/.</p>

E.1.2. Remaining forward action requests from validation and/or previous verifications

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There are no forward action requests from validation and/or the previous verification of the PoA.

E.1.3. CPAs considered for verification and covered in this report

Title and UNFCCC reference number of the CPA included in the PoA as of the end of this monitoring period	Is the CPA considered for this verification? (yes/no)	The date when the CPA was included	Version of the PoA-DD	Confirmation that a request for issuance including the CPA has been published for the previous monitoring period (Y/N)
"CPA # 1 Improved Cooking Stoves for Nigeria" 5067-0001	Yes	10/11/2011	Version 3.2	Y
"CPA # 2 Improved Cooking Stoves for Nigeria" 5067-0002	Yes	11/07/2012	Version 3.2	Y
"CPA # 3 Improved Cooking Stoves for Nigeria" 5067-0003	Yes	11/07/2012	Version 3.2	Y
"CPA # 4 Improved Cooking Stoves for Nigeria" 5067-0004	Yes	29/05/2013	Version 3.2	Y
"CPA # 5 Improved Cooking Stoves for Nigeria" 5067-0005	No	29/05/2013	Version 3.2	N

E.2. Programme of activities

E.2.1. Compliance of the programme implementation with the registered programme design document

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>CCIPL by means of an on-site inspection and document review, assessed that all physical features (technology, project equipment, and monitoring and metering equipment) of the included CPAs in the registered PoA-DD are in place and that the coordinating/managing entity has operated the PoA and the CPAs as per the registered PoA-DD and the CPA-DDs.</p> <p>Verification team confirms that the programme has been implemented as per the registered PoA-DD. This confirms the compliance of § 340(a), 342 and § 347 of CDM VVS for PoAs, Version 02.0 /B01-1/.</p>

E.2.2. Implementation and operation of the management system

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>The PoA management system including the record-keeping system has been explained in the registered PoA-DD /B04/. During the course of verification, verification team based on review of provided documents and OSV interview/observation has assessed this management system. This included the organisational structure, roles and responsibilities, data collection, transfer and aggregation procedures, training of personnel /10/, data storage and archiving and emergency procedures for the monitoring system.</p>

	<p>On the basis of on-site interview with the personnel of atmosfair gGmbH involved in the project monitoring and data collection, inspection of monitoring database & equipment used and document review, CCIPL can confirm that the responsibilities and authorities for monitoring and reporting are appropriate and effective for the project type and hence in accordance with the monitoring plan of the registered PoA-DD /B04/ and the applied monitoring methodology /B02/.</p> <p>The verification team confirms that the monitoring management system of the CDM PoA is in place, with the responsibilities properly identified and in place. This confirms the compliance of § 340 (a), § 32 (b) (iv) and § 347 (b) (iv) of CDM VVS PoAs. Version 02.0 /B01-1/.</p>
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E.2.3. Post-registration changes

E.2.3.1. Temporary deviations from the registered monitoring plan, applied methodology or applied standardized baseline

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There are no temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline during the monitoring period.

E.2.3.2. Corrections

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There are no corrections applicable to the monitoring period that have been approved by the Board during this monitoring period or to be submitted with the request for issuance.

E.2.3.3. Inclusion of a monitoring plan

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There are no inclusions of monitoring plan to the registered programme of activities has been approved by the Board during this monitoring period.

E.2.3.4. Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline or other applied standards or tools

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A post registration change was approved prior to the start of the reported monitoring period on 29/12/2014 for the PoA and is prior to the submission of issuance request for the PoA. The reference number for the post registration change is PRC-5067-001.

E.2.3.5. Changes to the programme design or project design

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There are no 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.

E.2.3.6. Change of coordination/managing entity

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Not applicable

E.2.3.7. Changes specific to afforestation and reforestation activities

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Not applicable to the type of the programme of activity.

E.3. Component project activities

E.3.1. Compliance of the CPA implementation with the included CPA design document

Means of verification	Document Review, Interview
Findings	CL 01 and CL 02 had been raised in this regard and have been resolved.

Conclusion	The implementation status of the PoA and the component project activities is:	
	Co-ordinating and Managing entity/Project Participants:	atmosfair gGmbH
	Title of the PoA:	Improved Cooking Stoves for Nigeria Programme of Activities
	UNFCCC registration No:	5067
	Applied Baseline and monitoring methodology:	AMS II G version 3
	Title of the CPA:	CPA # 1 Improved Cooking Stoves for Nigeria
	CPA reference number:	5067-0001
	Date of inclusion:	10/11/2011
	CPA start date:	29/03/2011
	CPA start of operation:	29/03/2011
	CPA implementer	atmosfair gGmbH
	Project Scale:	Small scale
	Location of the CPAs:	Nigeria
	CPA crediting period:	10/11/ 2011 – 09/11/2021
	Reported monitoring Period verified in this verification:	01/07/2017 to 30/06/2018
	Title of the CPA:	CPA # 2 Improved Cooking Stoves for Nigeria
	CPA reference number:	5067-0002
	Date of inclusion:	11/07/2012
CPA start date:	01/01/2012	
CPA start of operation:	14/01/2012	
CPA implementer	atmosfair gGmbH	
Project Scale:	Small scale	
Location of the CPAs:	Nigeria	
CPA crediting period:	15/07/2012 – 14/07/2022	
Reported monitoring Period verified in this verification:	01/07/2017 to 30/06/2018	
Title of the CPA:	CPA # 3 Improved Cooking Stoves for Nigeria	
CPA reference number:	5067-0003	
Date of inclusion:	11/07/2012	
CPA start date:	01/01/2012	
CPA start of operation:	07/01/2012	
CPA implementer	atmosfair gGmbH	
Project Scale:	Small scale	
Location of the CPAs:	Nigeria	
CPA crediting period:	15 /07/2012 – 14/07/2022	
Reported monitoring Period verified in this verification:	01/07/2017 to 30/06/2018	
Title of the CPA:	CPA # 4 Improved Cooking Stoves for Nigeria	
CPA reference number:	5067-0004	
Date of inclusion:	29/05/2013	
CPA start date:	01/01/2012	
CPA start of operation:	12/07/2013	
CPA implementer	atmosfair gGmbH	
Project Scale:	Small scale	
Location of the CPAs:	Nigeria	
CPA crediting period:	01/06/2013 to 31/05/2023	
Reported monitoring Period verified in this verification:	01/07/2017 to 30/06/2018	
Each CPA involves the distribution of improved cooking stoves in the host country Nigeria. The coordinating/managing entity for the PoA is atmosfair. The ICS		

deployed under CPA 1, CPA 2 and CPA 4 is "SAVE80" type /12-1/ and ICS disseminated under CPA 3 is Envirofit G3300 type /12-1/. CPA 5 has not been reported in the monitoring report for the reported monitoring period. This is in accordance with the section 10.2.1 of the CDM VVS for PoA, version 02.0 /B01-1/. The number of stoves deployed under each CPA has been confirmed by the monitoring database /13/. The verified total number of stoves deployed (implemented) under the CPAs are:

- CPA 1 – 3,198
- CPA 2 – 3,182
- CPA 3 – 2,235
- CPA 4 – 2,527

As per the registered CPA-DDs /B04/, the estimated (maximum number of ICS to be deployed per year to ensure the CPA remains under the threshold of 60 GWh thermal energy savings) cook stove/per for the CPAs are defined as:

- CPA 1: 3,200
- CPA 2: 3,200
- CPA 3: 3,750
- CPA 4: 9,600

Based on above assessment, verification team confirmed that the number of stoves deployed under each CPA is under the limit as set by the CME during the inclusion of each CPA and CPAs remain under the threshold of 60 GWh thermal energy savings/year.

The thermal savings for each CPA has been calculated by the CME as follows:

CPA	GWh_{th}	Comment
CPA 1	48.1	The annual thermal savings from the CPA is less than the CPA-DD requirement of 60 GWh _{th} for micro scale project.
CPA 2	47.8	The annual thermal savings from the CPA is less than the CPA-DD requirement of 60 GWh _{th} for micro scale project.
CPA 3	34.2	The annual thermal savings from the CPA is less than the CPA-DD requirement of 60 GWh _{th} for micro scale project.
CPA 4	38.0	The annual thermal savings from the CPA is less than the CPA-DD requirement of 60 GWh _{th} for micro scale project.

Each CPA under the PoA involves the distribution of ICSs in the host country, Nigeria. The exact stoves locations could be verified from the monitored stove distribution database /13/ and sample sales receipts of each CPAs /07/ (i.e. CPA 1, CPA 2, CPA 3 and CPA 4).

The component project activities were implemented and equipment installed as described in the registered/included CPA DDs /B04/.

In accordance with the clarification letter INQ-04074-EB issued by UNFCCC on 30/11/2015, a joint site visit by the monitoring and verification personnel was undertaken to collect data and evidence. It was confirmed during the OSV that atmosfair gGmbH is the Coordinating/Managing Entity for the PoA. The actual project activity is in line with the registered/included CPA-DDs /B04/. Atmosfair gGmbH is the CPA implementer/programme activity implementer for the CPAs.

The information (including data and variables) provided in the MR /02/ is in line with the details provided in the included/registered CPA-DDs /B04/.

CC IPL's verification team considers the project description of the project contained in the approved revised PoA-DD and the CPA-DDs /B04/ to be complete and accurate. The CPA-DDs comply with the relevant methodology, tools, forms and guidance at the time of CPA-DDs submission for registration/inclusion.

In accordance with § 342 of CDM VVS for PoA, version 02 /B01-1/, the verification team confirms that there is no information (data and variables) in the current monitoring period that are different from that stated in the registered CPA-DDs/B04/ which has caused an increase in the estimates of GHG emission reductions.

Verification team has assessed the project in order to check any proposed or actual changes to the project design in accordance with § 269 of CDM VVS for PoAs, Version 02.0/B01/. In the opinion of CC IPL, there is no change to the project design. CC IPL's verification team confirms that the CPAs are implemented within the boundary of the PoA as described in the registered PoA-DD/B04/ and the implementation and operation of the project activity has been conducted in accordance with the description contained in the registered PoA-DD/B04/ and registered/included CPA-DDs/B04/.

As part of the site visit, the verification team was able to confirm that the component project implementation is in accordance with the project description contained in the registered/included approved revised CPA-DDs /B04/. The verification team took cognizance of § 340, 341 and 342 of the CDM VVS for PoA, version 02 /B01-1/.

E.3.2. Post-registration changes

E.3.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline

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There are no temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline during the monitoring period.

E.3.2.2. Corrections

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There are no corrections applicable to the monitoring period that have been approved by the Board during this monitoring period or to be submitted with the request for issuance.

E.3.2.3. Changes to the start date of the crediting period of component project activities

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There are no changes to the start date of the crediting period for the CPAs.

E.3.2.4. Inclusion of a monitoring plan

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There are no inclusions of monitoring plan to included CPA-DDs.

E.3.2.5. Permanent changes to the registered monitoring plan or permanent deviation of monitoring from the applied methodology, standardized baseline, or other applied standards or tools

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A post registration change was approved prior to the start of the reported monitoring period on 29/12/2014 for the PoA and is prior to the submission of issuance request for the PoA. The reference number for the post registration change is PRC-5067-001.

E.3.2.6. Changes to the programme design or project design

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There are no changes to the programme design of the included CPA-DDs.

E.3.2.7. Changes specific to afforestation and reforestation component project activities

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Not applicable.

E.3.3. Compliance of the registered monitoring plan with the methodology including applicable tool(s) and standardized baseline

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>The verification team is able to confirm that the monitoring plan contained in the registered CPA-DDs /B04/ is in accordance with the approved methodology applied by the project activity, i.e. AMS-II.G, version 03 /B02/.</p> <p>The monitoring plan is in accordance with the approved methodology, AMS-II.G, Version 03 /B02/, applied by the component project activities and as provided in the CPA-DDs /B04/.</p> <p>The verification took cognizance of § 343 to § 345 of CDM VVS for PoAs, Version 02.0 /B01-1/.</p>

E.3.4. Compliance of monitoring activities with the registered monitoring plan**E.3.4.1. Data and parameters fixed ex ante or at renewal of crediting period**

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>Verification team confirms that the Data and parameters fixed ex ante are in compliance with the registered CPA-DDs /B04/ and the monitoring plan. Please refer Appendix 5 for detailed analysis of the ex-ante parameters.</p> <p>The verification took cognizance of § 346, 347 (c) and 359 of CDM VVS for PoAs, Version 02.0 /B01-1/.</p>

E.3.4.2. Data and parameters monitored

Means of verification	Document Review, Interview
Findings	CL 03 had been raised in this regard and has been resolved.
Conclusion	<p>The Verification team confirms that the Data and parameters monitored are in compliance with the registered CPA-DDs and the monitoring plan. A complete assessment of each of the monitored parameters has been provided in Appendix 6 of the verification report.</p> <p>The verification took cognizance of § 346, 347 (c), 357 and 359 of CDM VVS for PoAs, Version 02.0 /B01-1/.</p>

E.3.4.3. Implementation of sampling plan

Means of verification	Document Review, Interview
Findings	CAR 02 had been raised in this regard and has been resolved.
Conclusion	<p>The sampling plan implemented by the CME is in accordance with the applied approved monitoring methodology /B02/ and the approved revised PoA-DD/CPA-DDs /B04/. The CME has appropriately performed Simple Random Sampling procedure in line with the applied methodology and best suited for this type of project. As the registered PoA-DD /B04/ mentions the option for Simple Random Sampling procedure, it is acceptable to the verification team.</p> <p>The sampling survey has been carried out by the well-trained people in the atmosphere, training certificates of the personnel have been provided to the verification team /10/.</p> <p>For the parameters DO_y and N_{eaters,appliance} a common interview questionnaire /09/ was prepared and was used during the survey by the CME. Verification team has cross verified these sample documents during the on-site visit. For the parameter η_{new}, water boiling test has been performed and this has been checked by the</p>

verification team with the related spreadsheets and instructions and data entry forms /08/ /11/.

Assessment of sampling for CPA 1, CPA 2 and CPA 4:

PP has done a combined sampling for CPA 1, CPA 2 and CPA 4 for the current monitoring period. It is acceptable to the DOE since the make of ICS distributed under CPA 1, CPA 2 and CPA 4 is same i.e. "SAVE 80" type and also the geographical boundary is the host country Nigeria for the CPAs. Since the make of ICS under CPA 3 is different i.e. Envirofit G3300, sampling has been performed separately for CPA 3. This is in accordance to the Sampling Standard, version 04.1 /B07-2/.

The resultant applied sample size by the CME for the CPA 1, CPA 2 and CPA 4 together /05/ are:

Parameters	DO _y	N _{eaters,appliance}	η _{new}
Estimated Sample Size	46	6	5
Applied Sample Size	46	46	5
Valid Responses	46	46	5

CME has calculated the estimated sample size /05/ from the results of last monitoring period, which is found appropriate as stated in the registered PoA-DD /B04/. A total of 46 households for the parameter DO_y and 46 for the parameter N_{eaters,appliance} are surveyed. For the parameter η_{new}, WBTs were conducted for 5 samples. The sample sizes for N_{eaters,appliance} and η_{new} were calculated by the PP using Student's t-distribution calculations in accordance with the General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, version 01 (EB 50 Annex 30)/B06-2/, applicable at the time of PoA registration as provided in the registered/revised approved monitoring plan. As the sample size calculated using z-values was less than 30, a sample size has been calculated using student's t-distribution. This is appropriate and is in accordance with the para 12 of the Sampling Standard, version 04.1/B07-2/ as the parameter of interest mean if less than 30, shall be calculated using Student's t-distribution.

Assessment of sampling for CPA 3:

CME has conducted sampling for CPA 3 separately as the type of improved cook stoves deployed in the CPA (i.e. Envirofit G3300) is different from the CPA 1, CPA 2 and CPA 4.

The resultant applied sample size by PP for CPA 3 /05/ is:

Parameters	DO _y	N _{eaters,appliance}	η _{new}
Estimated Sample	24	5	10
Applied Sample Size	30	30	10
Valid responses	30	30	10

The estimated sample size is 24, 5 and 5 for the parameters DO_y, N_{eaters,appliance} and η_{new} respectively. A total of 30 households for the parameter DO_y and 30 for the parameter N_{eaters,appliance} are surveyed. For the parameter η_{new}, WBTs were conducted for 10 samples. The sample sizes for N_{eaters,appliance} and η_{new} were calculated by the PP using Student's t-distribution calculations in accordance with the General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, version 01 (EB 50 Annex 30)/B06-2/, applicable at the time of PoA registration as provided in the registered/revised approved monitoring plan. As the sample size calculated using z-values was less than 30, a sample size has been calculated using student's t-distribution. This is appropriate and is in accordance with the para 12 of the Sampling Standard, version 04.1/B07-2/ as the parameter of interest mean if less than 30, shall be calculated using Student's t-distribution.

The necessary confidence precision of 95/10 is met for all the parameters except

	<p>for DO_y in CPA 1, 2 and 4. This has been cross verified by the verification team from the supporting documents submitted i.e. Sample Size Calculation /05/, Inspection Database /04/, User Interviews /09/ and Water Boiling Test Report /08//10/. CME has applied lower bound values for the DO_y parameter for the CPAs 1, 2 and 4 in line with the applied methodology AMS II.G, version 03 /B02/ and hence deemed acceptable as the required precision is not met by the sample.</p> <p>During the on-site visit, verification of the CME's sampling has been done in accordance with the clarification letter INQ-04074-EB from the CDM EB /14/. The Board allowed the CME to conduct monitoring and verification simultaneously. Since, the verification team was available during the monitoring process, the monitoring exercise was carried out by the CME in presence of the verification team. The verification team was able to verify all the households visited as part of the monitoring survey (CME's set of records), thus the acceptance sampling as described in the steps indicated in paragraphs 27–33 of the sampling standard, version 07 /B07-1/ is not applicable in this case.</p>
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E.3.4.4. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Document Review, Interview
Findings	CL 04 had been raised in this regard and has been resolved.
Conclusion	<p>Monitoring database has been used to record the stoves details by the CME through a survey of the installed stoves based on sampling basis. The stove efficiency also needs to be checked. The stove efficiency testing has been done by WBTs conducted in line with the guidance provided by the CME in the CPA-DDs /B04/. The monitoring equipment used for conducting the stove efficiencies by WBTs are thermocouple and weighing machines. The thermocouple and weighing scale were duly calibrated on 16/07/2018, before the start of monitoring /12-2/ /12-3/. The appropriate QA/QC procedures have been followed for the monitoring parameters. The monitoring personnel were trained to conduct WBT tests before they conducted the WBTs/10/.</p> <p>The verification took cognizance of section 10.2.6 of CDM VVS for PoAs, version 02 /B01-1/.</p>

E.3.5. Assessment of data and calculation of emission reductions or net removals

E.3.5.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	Document Review, Interview
Findings	CAR 03 had been raised in this regard and has been resolved.
Conclusion	<p>In line with the requirement of § 357 and 358 of CDM VVS for PoAs, Version 02.0, the verification team has reviewed the Monitoring report and ER spread sheet to check the arithmetic calculation of the emission reductions. The equation used for the calculation is compared with those provided in the registered CPA-DDs /B04/ and the methodology AMS-II.G, Version 03 /B02/ and found to be in correct.</p> <p>The equations for baseline emissions as provided in the monitoring report /02/ were confirmed with the registered CPA-DDs /B04/ and the methodology AMS-II.G, version 03 /B02/ and found to be correct.</p> <p>Emission reductions are calculated using the below equation:</p> $ER_y = B_{y,savings} \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel}$ <p>Where:</p> <p>ER_y = Emission reductions of the project activity in period y in tCO₂</p> <p>$B_{y,savings}$ = Quantity of woody biomass that is saved by the CPA in period y in tonnes</p> <p>$f_{NRB,y}$ = - Fraction of woody biomass saved by the project activity in period y that can be established as non-renewable biomass (fixed value of 0.77)</p>

NCV_{biomass} = Net calorific value of the non-renewable woody biomass that is substituted (fixed value of 0.015 TJ/ton)

EF_{projected_fossilfuel} = Emission factor for the substitution of non-renewable woody biomass by similar consumers (fixed value of 81.6 tCO₂/TJ)

$B_{y,savings}$ is calculated according to the following formula as per the applied methodology /B02/, Option 2:

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

Where:

$B_{y,savings}$ = Quantity of woody biomass that is saved in tonnes
 B_{old} = Quantity of woody biomass used in the absence of the project activity in tonnes
 η_{old} = Efficiency of the baseline system being replaced (fixed value of 0.1)
 η_{new} = Efficiency of the system being deployed as part of the project activity (monitored value)

B_{old} is calculated according to the following formula:

$$B_{old} = B_{old,appliance} \cdot N_y \cdot (1 - DO_y) \cdot \frac{mp_{length}}{365} \cdot L_{NRB} \cdot L_{PoA}$$

Where:

B_{old} = Quantity of woody biomass used in the absence of the project activity in tonnes
 $B_{old,appliance}$ = Quantity of woody biomass used in the absence of the project activity in tons, per appliance in tonnes per year
 N_y = Adjusted total number of appliances deployed in period y (monitored value)
 DO_y = Statistically adjusted drop out from total population of appliances in period y (monitored value)
 mp_{length} = Length of monitoring period y in days
 L_{NRB} = Net-to-gross adjustment factor for NRB Leakage (fixed value of 0.95)
 L_{PoA} = Net-to-gross adjustment factor for PoA Leakage (fixed value of 0.95)

$B_{old,appliance}$ is calculated according to the following formula:

$$B_{old,appliance} = B_{old,capita} \cdot N_{eaters,appliance}$$

Where:

$B_{old,appliance}$ = Quantity of woody biomass used in the absence of the project activity in tonnes, per appliance
 $B_{old,capita}$ = Average baseline fuelwood consumption per capita per year (fixed value of 0.692 t/year)
 $N_{eaters,appliance}$ = Average number of eaters per project appliance (monitored value, capped as per parameter HH_CAP)

From the above equation and the parameter values, emission reductions are calculated as:

5067-0001: 6,771 tCO₂e
 5067-0002: 6,737 tCO₂e
 5067-0003: 5,948 tCO₂e
 5067-0004: 5,350 tCO₂e
 Total ER_y = 24,806 tCO₂e

The verification team confirms that the calculation of baseline emission and

	<p>emission reductions is in accordance with the applied methodological equation and the registered CPA-DDs. Calculations have been checked and confirmed from the ER spread sheet /04/.</p> <p>The verification took cognizance of § 358 of CDM VVS for PoAs, version 02.0 /B01-1/.</p>
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E.3.5.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	There are no project emissions identified in the monitoring methodology /B02/ and the CPA-DDs /B04/.

E.3.5.3. Calculation of leakage GHG emissions

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>Net-to-gross adjustment factors for NRB leakage (L_{NRB}) and for PoA leakage (L_{PoA}) (fixed default values of 0.95 as per AMS II.G. ver.3) /B02/ were applied to the project activity to calculate Emission Reductions of this Monitoring Period.</p> <p>Verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered CPA-DDs /B04/.</p>

E.3.5.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	Document Review, Interview
Findings	There are no findings on this section of the VR.
Conclusion	<p>Verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered CPA-DD. The total number of ERs achieved during the monitoring period is 24,806 tCO₂e.</p> <p>In summary, verification team confirms that actual emission reduction is lower than the estimate of the registered (included)/approved CPA-DD/B04/ for the current monitoring period.</p> <p>The verification took cognizance of § 358 of CDM VVS PoAs, version 02 /B01-1/.</p>

Title and UNFCCC reference number of the CPA	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)		
				Amount achieved before 1 January 2013	Amount achieved from 1 January 2013	Amount achieved in the entire monitoring period
CPA # 1 Improved Cooking Stoves for Nigeria (5067-0001)	6,771	0	0	0	6,771	6,771

CPA # 2 Improved Cooking Stoves for Nigeria (5067-0002)	6,737	0	0	0	6,737	6,737
CPA # 3 Improved Cooking Stoves for Nigeria (5067-0003)	5,948	0	0	0	5,948	5,948
CPA # 4 Improved Cooking Stoves for Nigeria (5067-0004)	5,350	0	0	0	5,350	5,350
Total	24,806	0	0	0	24,806	24,806

E.3.5.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included CPA

Means of verification	Document Review
Findings	CAR 04 had been raised in this regard and has been resolved.
Conclusion	Comparison of the actual GHG emission reductions with the estimates in the included specific CPAs is given in the below table. The verification team took cognizance of § 358 of CDM VVS for PoAs, version 02 /B01-1/.

Title and UNFCCC reference number of the CPA	Value estimated in ex ante calculation in the included CPA-DD(s)	Actual values achieved by the CPAs during this monitoring period
CPA # 1 Improved Cooking Stoves for Nigeria (5067-0001)	8,952	6,771
CPA # 2 Improved Cooking Stoves for Nigeria (5067-0002)	11,559	6,737
CPA # 3 Improved Cooking Stoves for Nigeria (5067-0003)	11,627	5,948
CPA # 4 Improved Cooking Stoves for Nigeria (5067-0004)	34,677	5,350
Total	66,815	24,806

E.3.5.6. Remarks on difference from estimated value in included CPA

Means of verification	Document review
Findings	CL 05 had been raised in this regard and has been resolved.
Conclusion	Verification team confirms that actual emission reduction is lower than the estimate of the registered (included)/approved CPA-DD/B04/ for the current monitoring period. The total ERs for the monitoring period are 24,806 tCO _{2e} and the ex-ante ERs for the monitoring period were 66,815 tCO _{2e} . The total ERs for the monitoring

	<p>period is less than the estimated ex-ante. The difference of other monitoring parameters has been assessed in the Appendix 6 of this report.</p> <p>The monitored value of the ERs per unit of stove is 3.07 tCO₂e/year/02//04/ for the CPA 1, 2 and 4. The value of ex-ante estimated ERs per stove is 3.80 tCO₂e/year. The value of monitored value is less than ex-ante estimated values as the value of average number of eaters and drop-out rate has reduced from the ex-ante estimations for CPA 1, 2 and 4. The monitored value of the ERs per unit of stove is 2.85 tCO₂e/year/02//04/ for the CPA 3. The value of ex-ante estimated ERs per stove is 3.26 tCO₂e/year. The value of monitored value is less than ex-ante estimated values as the value of average number of eaters and drop-out rate has reduced from the ex-ante estimations for CPA 3.</p> <p>The verification took cognizance of § 270 and 271 of the CDM Project Standard for the PoAs version 02/B01-2/ and § 341 of the VVS for the PoAs version 02/B01-1/.</p>
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E.3.6. Assessment of reported sustainable development co-benefits

Means of verification	Not Applicable
Findings	There are no findings on this section of the VR.
Conclusion	Not applicable The verification took cognizance of § 361 of CDM VVS PoAs, version 02 /B01-1/.

E.3.7. Global stakeholder consultation

Means of verification	Not Applicable
Findings	There are no findings on this section of the VR.
Conclusion	No comments have been received from any global stakeholders during the monitoring period. The verification took cognizance of § 370 of CDM VVS PoAs, version 02 /B01-1/.

SECTION F. Internal quality control

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The final verification report has passed a technical review before being submitted to the UNFCCC Executive Board. A technical reviewer qualified in accordance with the CCIPL’s qualification scheme for CDM validation and verification has performed the technical review.

SECTION G. Verification opinion

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Carbon Check (India) Private Ltd. has performed the sixth periodic verification of the registered CDM Programme of Activities “Improved Cooking Stoves for Nigeria Programme of Activities” and UNFCC ref number 5067 for the CPAs titled “CPA # 1 Improved Cooking Stoves for Nigeria”, “CPA # 2 Improved Cooking Stoves for Nigeria”, “CPA # 3 Improved Cooking Stoves for Nigeria” and “CPA # 4 Improved Cooking Stoves for Nigeria” and UNFCC reference numbers 5067-0001, 5067-0002, 5067-0003, 5067-0004 and “CPA # 5 Improved Cooking Stoves for Nigeria” with 5067-0005 has not been reported in the monitoring report. The verification team assigned by the DOE concludes that the Component Project Activities as described in the registered/included CPA-DDs (CPA 1 – Version 3.2, 24/09/2014, CPA 2- Version 3.2, 24/09/2014, CPA 3 – Version 3.2, 24/09/2014 and CPA 4 – 3.2, 24/09/2014) and the Monitoring report (version 06, dated 08/02/2019), meet all relevant requirements of the UNFCCC for CDM project activities including article 12 of the Kyoto Protocol and paragraph 62 of CDM M & P, the modalities and procedures for CDM (Marrakesh Accords) and the subsequent decisions by the COP/MOP and CDM Executive Board. The verification has been conducted in-line with the CDM VVS for programme of activities requirements version 02.0 /B01-1/.

Verification methodology and process:

The Verification team confirms the contractual relationship signed on 26/06/2018 between the DOE, Carbon Check (India) Private Ltd. and the Co-ordinating Managing Entity/ Project Participant, (atmosfair gGmbH). The team assigned to the verification meets the Carbon Check (India) Private Ltd.’s internal procedures including the UNFCCC requirements for the team

composition and competence. The verification team has conducted a thorough contract review as per UNFCCC and Carbon Check procedures and requirements.

The verification has been performed as per the requirements described in the CDM VVS for programme of activities, version 02.0 and constitutes the review and completion of the following steps:

- Reviewing the registered PoA-DD (Version 3.2, 24/09/2014), registered/included CPA DDs (CPA 1 – Version 3.2, 24/09/2014, CPA 2- Version 3.2, 24/09/2014, CPA 3 – Version 3.2, 24/09/2014 and CPA 4 – 3.2, 24/09/2014), including the monitoring plan and the corresponding validation report/s;
- Publication of the MR on the UNFCCC website (version 01, 01/10/2018) on 09/10/2018
- Desk review of the validation report, MR and other relevant documents including documents related to the component project activities in emission reductions
- Review of the applied monitoring methodology (AMS-II.G, version 03);
- Review of any CMP and EB decisions, clarifications and guidance;
- On-site assessment (24/07/2018 – 27/07/2018)
- Resolution of CARs and CLs raised during verification
- Issuance of Verification Report

The component project activities were correctly implemented according to the selected monitoring methodology, monitoring plan and the registered/included CPA-DDs. The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on-site visit, the verification team confirms that the PoA has resulted in the 24,806 tCO₂e emission reductions during the sixth monitoring period.

During the reported monitoring period five CPAs were registered. Emission reductions have been reported for 4 out of 5 CPAs in the Monitoring report. The emission reductions have been claimed only for CPA 1, CPA 2, CPA 3 and CPA 4 (UNFCCC reference number: 5067-0001, 5067-0002, 5067-0003, 5067-0004):

Verified emission reductions (CPA 1): 6,771 tCO₂e
 Verified emission reductions (CPA 2): 6,737 tCO₂e
 Verified emission reductions (CPA 3): 5,948 tCO₂e
 Verified emission reductions (CPA 4): 5,350 tCO₂e

The break-up of emission reduction upto 31st December 2012 and 1st January 2013 onwards as verified during the course of verification are as below:

Item	Emission reductions up to 31 December 2012	Emission reductions from 1 January 2013 onwards
Emission reductions (t CO ₂ e)	0	24,806

CC IPL as a DOE is therefore pleased to issue a positive verification opinion expressed in the attached Certification statement.

SECTION H. Certification statement

>>

Carbon Check (India) Private Ltd, the DOE, has performed the verification of the registered Programme of Activities “UNFCCC Registration Number 5067”, “Improved Cooking Stoves for Nigeria Programme of Activities” in Nigeria. The aim of the PoA is to enhance the penetration of efficient cookstoves by offering cost-effective efficient stoves. The component project activities of the Programme of Activity are designed to generate emission reductions by distribution of the fuel-efficient cook stoves in Nigeria. The fuel-efficient cook stoves are replacing the baseline fossil fuels-based stoves in common use (baseline scenario).

The CME and the CPA implementer are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the component project activity/ies. It is DOE’s responsibility to express an independent verification statement on the reported GHG emission reductions from the component projects. The DOE does not express any opinion on the selected baseline scenario or on the validated and registered PoA-DD/CPA-DDs. The verification is carried out in-line with the VVS requirements, version 02/B01-1/.

The verification was performed to identify the compliance of the component projects with the implementation and monitoring requirements, and to verify the actual amount of achieved emission reductions, through obtaining evidence and information on-site that included i) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

The verification is based on:

- PoA-DD version 03.2, revised approved/ registered with the CDM Executive Board on 24-09-2014/B04/;
- CPA-DD/s included in the registered PoA and its monitoring plan/B04/.
- Approved monitoring methodology AMS-II.G “Energy efficiency measures in thermal applications of non-renewable biomass”, version 03;
- Validation report /B04/ for the PoA and CPA/s;
- Verification reports /B04/ for the previous verifications (MP1, MP2, MP3, MP4 and MP5)/B09/;
- Monitoring report(s) version(s) 01, 02, 03, 04, 05 and 06 dated 01/10/2018, 19/10/2018, 24/10/2018, 21/12/2018, 04/01/2019 and 08/02/2019 respectively.

This statement covers verification period from 01/07/2017 to 30/06/2018 (including both the days).

The DOE had raised 05 clarifications requests and 04 corrective action requests, all of which have been resolved by the CME.

The DOE considers necessary to give reasonable assurance that reported GHG emission reductions were calculated correctly on the basis of the approved baseline and the monitoring methodology and the monitoring plan contained in the registered/included CPA-DDs are fairly stated.

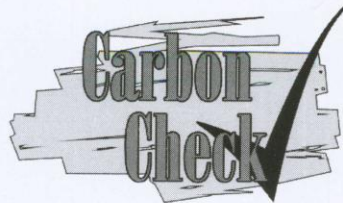
The DOE, hereby certifies that the project activity, achieved emission reductions by sources of GHG equal to 24,806 tCO₂e and all monitoring requirements have been fulfilled and is substantiated by an audit trail that contains evidence and records. The break-up of emission reduction up-to 31/12/2012 and 01/01/2013 onwards as verified during the course of verification are as below:

Item	Emission reductions up to 31 December 2012	Emission reductions from 1 January 2013 onwards
Emission reductions (t CO ₂ e)	0	24,806

Appendix 1. Abbreviations

Abbreviations	Full texts
AQL	Acceptable Quality Limit
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CER	Certified Emission Reduction
CL	Clarification Request
CME	Co-ordinating and Managing entity
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
DR	Document review
DOE	Designated Operational Entities
DVR	Draft Verification Report
EB	CDM Executive Board
EF	Emission Factor
EI	External individual
FA	Final Approval
FAR	Forward Action Request
FVR	Final verification Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
I	Interview
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
MWh	Mega Watt Hour
MP	Monitoring Period
MR	Monitoring Report
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PP	Project Participant
OSV	On Site Visit
QC/QA	Quality control /Quality assurance
RMP	Revised Monitoring Plan
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
UQL	Unacceptable Quality Limit
VVS	Validation and Verification Standard
WBT	Water boiling test

Appendix 2. Competence of team members and technical reviewers



Carbon Check (India) Private Ltd.

Anubhav Dimri

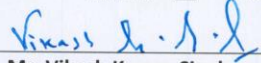
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

For following functions:

Validator Team Leader Technical reviewer
 Verifier Technical Expert Local Expert¹

In the following Technical Areas:

TA 1.1 TA 3.1 TA 5.2 TA 9.2 TA 13.2
 TA 1.2 TA 4.1 TA 8.1 TA 10.1 TA 14.1
 TA 2.1 TA 5.1 TA 9.1 TA 13.1


 Mr. Vikash Kumar Singh
 Compliance Officer


 Mr. Amit Anand
 CEO

Date of Approval
 24/12/2018

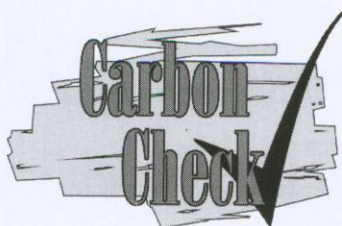
Valid Till
 23/12/2019

Revision History of the Document

26/12/2014	Initial Adoption
24/12/2015	Annual Revision
20/01/2016	Interim Revision for office address change
23/12/2016	Annual Revision
24/12/2017	Annual Revision
24/12/2018	Annual Revision

¹ India, South Africa

CARBON CHECK (INDIA) PRIVATE LIMITED
 Registered in India: U74930DL2012PTC232495
 Regd. Off: 2071/38, 2nd Floor, Naiwala, Karol Bagh, New Delhi - 110005
 Corporate off: G 49 & 50, 3rd Floor, Sector - 3, NOIDA (Uttar Pradesh) - 201301
 Tel: +91 120 4373114 | URL: www.carboncheck.co.in
 e-mail: info@carboncheck.co.in



Carbon Check (India) Private Ltd.

Sanjay Agarwalla

has been qualified as per CCIPL’s internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

For following functions:

Validator Team Leader Technical reviewer
 Verifier Technical Expert Local Expert¹

In the following Technical Areas:

TA 1.1 TA 3.1 TA 5.2 TA 9.2 TA 13.2
 TA 1.2 TA 4.1 TA 8.1 TA 10.1 TA 14.1
 TA 2.1 TA 5.1 TA 9.1 TA 13.1

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

Date of Approval
24/12/2018

Valid Till
23/12/2019

Revision History of the Document

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¹ India

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 Corporate off: G 49 & 50, 3rd Floor, Sector – 3, NOIDA (Uttar Pradesh) – 201301
 Tel: +91 120 4373114| URL: www.carboncheck.co.in
 e-mail: info@carboncheck.co.in

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	atmosfair	1. Webhosted Monitoring report 2. Monitoring report 3. Monitoring report 4. Monitoring report 5. Monitoring report	Version 01, dated 01/10/2018 Version 02, dated 19/10/2018 Version 03, dated 24/10/2018 Version 04, dated 21/12/2018 Version 05, dated 04/01/2019	CME
2	atmosfair	Final Monitoring report	Version 06, dated 08/02/2019	CME
3	atmosfair	1. Emission reduction calculation spread sheet corresponding to /01-1/ 2. Emission reduction calculation spread sheet corresponding to /01-2/ 3. Emission reduction calculation spread sheet corresponding to /01-3/ 4. Emission reduction calculation spread sheet corresponding to /01-4/ 5. Emission reduction calculation spread sheet corresponding to /01-5/	- - - - -	CME
4	atmosfair	Emission reduction calculation spread sheet corresponding to /02/	-	CME
5	atmosfair	Sample size calculation spreadsheet as part of the ER sheet	-	CME
6	atmosfair	Sampling Random Number Generator for: 1. CPA 1, CPA 2 and CPA 4 2. CPA 3	-	CME
7	atmosfair	Sampled Households sales record for: 1. CPA 1, CPA 2 and CPA 4 2. CPA 3	-	CME
8	atmosfair	Water Boiling test data sheets: 1. CPA 1, CPA 2 and CPA 4 2. CPA 3	-	CME
9	atmosfair	Sample household questionnaire records for: 1. CPA 1, CPA 2 and CPA 4 2. CPA 3	-	CME
10	atmosfair	Training records	-	CME
11	atmosfair	Water boiling test records	-	CME
12	atmosfair	1. Technical details of the SAVE 80 and G3300 type stoves implemented under the PoA. 2. Thermocouple Calibration certificate for 16/07/2018 3. Weighing scale calibration certificate for 16/07/2018 4. Manuals for Weighing scale	-	CME

		and Thermocouple		
13	atmosfair	Sales and Monitoring Database	-	CME
14	atmosfair	EB Clarification letter (INQ 04074)	INQ-04074-EB dated 30/11/2015	CME
B01	UNFCCC	1. Validation and Verification Standard for PoAs, version 02.0 2. Project Standard for PoAs, version 02.0 3. Project Cycle Procedure for PoAs, version 02.0	http://cdm.unfccc.int/	Others
B02	UNFCCC	Applied baseline and monitoring methodology, AMS-II.G, version 03	http://cdm.unfccc.int/	Others
B03	UNFCCC	Instructions for filling out the monitoring report form for CDM programme of activities version 02.0	http://cdm.unfccc.int/	Others
B04	UNFCCC	Registered/ Revised approved PoA-DD (version 3.2 dated 24/09/2014); CPA-DD for 5067-0001: (version 3.2 dated 24/09/2014); CPA-DD for 5067-0002: (version 3.2 dated 24/09/2014); CPA-DD for 5067-0003: (version 3.2 dated 24/09/2014); CPA-DD for 5067-0004: (version 3.2 dated 24/09/2014); and corresponding validation reports.	http://cdm.unfccc.int/	Others
B05	Web sites	Websites: http://cdm.unfccc.int/	==	Others
B06	UNFCCC	1. Guidelines: Sampling and surveys for CDM project activities and programmes of activities, Version 04.0 (Latest used by VT) 2. General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities, version 01 (Used by CME as per sampling plan)	http://cdm.unfccc.int/	Others
B07	UNFCCC	1. Standard: Standard for sampling and surveys for CDM project activities and Programme of Activities, version 07.0 (Latest used by VT) 2. Standard for sampling and surveys for CDM project activities and Programme of Activities, version 04.1 (Used by CME as per sampling plan)	http://cdm.unfccc.int/	Others
B08	UNFCCC	Guideline: Application of materiality in verifications” Version 02.0	http://cdm.unfccc.int/	Others
B09	UNFCCC	Monitoring Report and Verification Reports of the previous monitoring periods:	http://cdm.unfccc.int/	Others

		MP1: MR version 03, dated 10/10/2013 and the verification report version 08 dated 31/10/2013 MP2: MR version 07, dated 20/03/2015 and the verification report version 03 dated 20/04/2015 MP3: MR version 05, dated 07/03/2017 and the verification report version 04 dated 09/03/2017 MP4: MR version 05, dated 07/03/2017 and the verification report version 03 dated 09/03/2017 MP5: MR version 03, dated 05/02/2018 and the verification report version 03 dated 23/03/2018		
B10	PCIA/ Global Alliance for Clean Cookstoves	The Water Boiling Test, version 4.2.3	https://cleancookstoves.org	Others

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

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

FAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of FAR				
CME response				Date: DD/MM/YYYY
Documentation provided by the CME				
DOE assessment				Date: DD/MM/YYYY

Table 2. CLs from this verification

CL ID	01	Section no.	E.3.1	Date: 16/10/2018
Description of CL				
<i>The thermal savings during the monitoring period from each CPA is not provided in the section C.1 of the monitoring report to confirm if the CPAs meet the small-scale limit for Type-II projects.</i>				
CME response				Date: 19/10/2018
<i>As the stove amount distributed is below the estimated stoves to be distributed and all the other reasons mentioned under F6 the criteria for the small-scale limit for Type-II projects is still achieved.</i>				
Documentation provided by the CME				
<i>1_Nigeria PoA 5067_MR_MP6_v02_revised date</i>				
DOE assessment				Date: 23/10/2018
In accordance with the para 274 (a) and 122 (b) of the Project Standard for the PoAs, version 01 and para 363 of the VVS for the PoAs, version 01, it has to be demonstrated that the scale of the activities belonging to the same small-scale project type (Type I, II or III) referred to in paragraph 122 above remained under the limit of that type every year during the crediting period.				
CME response				Date: 24/10/2018
PP included the calculation of the Microscale limit within the ER calculation sheet and included the results in C.1 of the MR.				

Documentation provided by the CME			
<i>Nigeria PoA_5067_ER-calculation_Spreadsheet_MP6_v3, 1_Nigeria PoA 5067_MR_MP6_v03_revised date</i>			
DOE assessment			Date: 25/10/2018
CME/PP has provided the calculations for microscale limits for each of the CPAs and justified that each of the CPA remains within the micro-scale limit in the section C.1 of the MR and the calculations have been provided in the ER sheet. The CPAs are small scale in a small-scale PoA and since meet the micro-scale limits are within the small-scale limit as well. Thus, compliance with the para 274 (a) and 122 (b) of the Project Standard for the PoAs, version 02 has been demonstrated by the CME.			
CL ID	02	Section no.	E.3.1
Date: 16/10/2018			
Description of CL			
<i>In section C.1 and E.2 of the MR, total number of stoves deployed (implemented) under the CPAs for CPA 1 and CPA 2 is not consistent with the previous monitoring period (MP5). Also, in section D of the MR, it is stated that "In this monitoring period there were no new sales of ICS under the CPAs covered in the monitoring report." It needs to be clarified how the number of stoves distributed has changed in such cases.</i>			
CME response			Date: 19/10/2018
<i>It is a mistake in the database. Under CPA2 PP had 2 stoves, which were sold in July 2011 and that belong to CPA 1. This was already corrected during last monitoring period but was somehow used wrongly again within this period. PP corrected accordingly.</i>			
Documentation provided by the CME			
<i>Nigeria PoA_5067_ER-calculation_Spreadsheet_MP6_v2, 1_Nigeria PoA 5067_MR_MP6_v02_revised date</i>			
DOE assessment			Date: 22/10/2018
PP has clarified that due to a mistake in the database 2 stoves, which were sold in July 2011 and that belong to CPA 1 were recorded in CPA 2. PP has corrected the values for the stoves for CPA 1 and CPA 2 and accordingly the values of ERs have changed for CPA 1 and CPA 2.			
CL ID	03	Section no.	E.3.4.2
Date: 16/10/2018			
Description of CL			
<i>In section E.2 of the MR, the monitoring frequency of the monitoring parameters DO_y, $N_{eaters,appliance}$, n_{new} has been provided as biennial even though the monitoring period is of one year.</i>			
CME response			Date: 19/10/2018
<i>PP corrected accordingly.</i>			
Documentation provided by the CME			
<i>1_Nigeria PoA 5067_MR_MP6_v02_revised date</i>			
DOE assessment			Date: 22/10/2018
The monitoring frequency of the monitoring parameters DO_y , $N_{eaters,appliance}$, n_{new} has been corrected in the section E.2 of the MR from biennial to annual.			
CL ID	04	Section no.	E.3.4.4
Date: 16/10/2018			
Description of CL			
<i>In section E.2 of the MR, it is stated in the monitoring parameter n_{new} for monitoring equipment precision balance that the equipment is factory calibrated and according to manufacturer does not need to be recalibrated during its lifetime. The manufacturer specification stating the same has not been provided to the verification team.</i>			
<i>Also, the abilities, qualifications and recognition of involved personnel and the experienced researcher for WBT are not provided.</i>			
CME response			Date: 19/10/2018
<i>PP submitted a calibration certificate and WBT personal certificates.</i>			
Documentation provided by the CME			
<i>WBT Preparation form and WBT Certificates; Calibration certificates</i>			
DOE assessment			Date: 22/10/2018
CME has provided the calibration certificates of the monitoring equipment, however the statement provided in the section E.2 of the MR, still mentions about the factory calibration.			
The WBT training agreements for the personnel involved in conducting the WBTs. However, it is not clear if the cross check as provided in the QA/QC procedures have been conducted.			
CME response			Date: 24/10/2018
<i>PP included the calibration date in the MR.</i>			
<i>The values have been compared with the efficiency as determined at CPA inclusion stage. The lower efficiency is based on the test conditions which are not as in a laboratory set up, as well as on the age of the stoves.</i>			
Documentation provided by the CME			

1_Nigeria PoA 5067_MR_MP6_v03_revised date	
DOE assessment	Date: 25/10/2018
CME has added the date of calibration in the MR and the statement has been rectified on the factory calibration from the monitoring report. The calibration for the monitoring equipment has been done prior to the start of the monitoring and the WBT tests. CME has also clarified that that the cross checks of the monitored value of efficiency have been conducted with the efficiency as determined at CPA inclusion stage in accordance with the QA/QC procedures in the registered CPA-DDs.	

CL ID	05	Section no.	E.3.5.6	Date: 16/10/2018
Description of CL				
<i>The value of emission reductions per unit stove is not provided and compared with the estimated ex-ante per unit emission reductions in the section F.6 of the MR in accordance with the para 268 of the PS for Project activities, version 01 and para 309 (a) of the VVS for Project activities, version 01.</i>				
CME response				Date: 19/10/2018
<i>PP included the comparison in the MR.</i>				
Documentation provided by the CME				
1_Nigeria PoA 5067_MR_MP6_v02_revised date				
DOE assessment				Date: 22/10/2018
The value of the emission reductions per unit stoves has been provided and compared with the values during the monitoring period for CPA1, 2 and 4 and CPA 3. In both the cases the values monitored are less than the ex-ante per unit values of emission reductions.				

Table 3. CARs from this verification

CAR ID	01	Section no.	E.1.1	Date: 16/10/2018
Description of CAR				
In section A.1.2 of the monitoring report, the titles of CPAs are not provided in accordance with the instruction text of the MR.				
CME response				Date: 19/10/2018
<i>PP corrected it accordingly.</i>				
Documentation provided by the CME				
1_Nigeria PoA 5067_MR_MP6_v02_revised date				
DOE assessment				Date: 23/10/2018
The titles of the specific CPAs are not provided in the first column in section A.1.2 and the title of the generic CPA has been changed.				
CME response				Date: 24/10/2018
<i>PP corrected it accordingly</i>				
Documentation provided by the CME				
1_Nigeria PoA 5067_MR_MP6_v03_revised date				
DOE assessment				Date: 25/10/2018
The titles of the specific CPAs have been provided and the generic CPA title also corrected in the section A.1.2 of the monitoring report.				

CAR ID	02	Section no.	E.3.4.3	Date: 16/10/2018
Description of CAR				
In section E.3 of the MR, it is stated that “We applied oversampling...”. It is not clear to what monitoring parameters is this statement applicable. Also, the reason for low response rates for the monitoring parameters N_{eaters} and n_{new} is not provided.				
CME response				Date: 19/10/2018
<i>The oversampling was applied for all parameters. We are assuming the following reasons for the high non responding:</i>				
<ol style="list-style-type: none"> 1) <i>The monitoring team faced security challenges by contacting the households.</i> 2) <i>Policies on Communication networks for users- thus, unsubscribe old and unused network</i> 3) <i>Switched telephone numbers without informing CME</i> 				
Documentation provided by the CME				
DOE assessment				Date: 23/10/2018
CME has stated that the oversampling was applied for all the parameters and has provided the reasons for the high non-response rates.				

CAR ID	03	Section no.	E.3.5.1	Date: 16/10/2018
Description of CAR				
In the ER spreadsheet, there are some duplicate stove numbers provided, such as stove no. 16, 2057 for CPA 1, 2 and 4 and stove no. 194494 for CPA 3. Also, in column V of the Inspection database for CPA 1, 2 and 4 and Column Y of the Inspection database for CPA 3 provides comment as replacement. It needs to be clarified what that means.				
CME response				Date: 19/10/2018
<i>The difference is in the prefix. atm BIA 16 and ATM 01C 16, as well as atm BIA 2057 and ATM 01 2057. For the CPA 3 it is the same stove who was just contacted twice, once with success and once without. Replacement means that reparations or outright replacement of damage part of stove have been done.</i>				
Documentation provided by the CME				
<i>Nigeria PoA_5067_ER-calculation_Spreadsheet_MP6_v2;</i>				
DOE assessment				Date: 23/10/2018
PP has clarified that the stove for CPA 1, 2 and 4 with the same stove numbers had different prefixes and thus refer to different stoves. Based on the location of the stoves it was confirmed that the stoves referred are different. PP has also clarified that the stove no. 194494 for CPA 3 was stated twice as once the contact was successful and once it was not. This was confirmed from the Inspection Database workbook of the ER sheet. However, the value mentioned in B312 of the Inspection Database (CPA 3) accounts for the same stove twice. PP has clarified that for the comments with replacement, replacement of the stove or repairs were done of damaged parts or stove. It needs to be clarified if the stove numbers remain same for such stoves.				
CME response				Date: 24/10/2018
PP deleted the entry for stove no 194494 were the contact couldn't be established. Now the value within B312 is correct. And PP needs to correct its previous statement regarding the replacement comments in row y. This doesn't means the reparation made on the stove it is about the drawing of the sample lists. Replacement means this sample was drawn within the replacement list and replacement 2 means the sample was drawn within the 2 nd replacement list.				
Documentation provided by the CME				
DOE assessment				Date: 25/10/2018
CME/PP has deleted one of the entries for stove no 194494 and refers to the stove only during the instance contact was made with the stove user. This approach is appropriate as the PP/CME may make multiple attempts at contacting the household, however record it when the contact has actually been made. The value for the samples has also been corrected. PP has clarified that the statement refers to the replacement list of samples drawn and not to the actual stove replacements. The additional or supplemental samples were drawn in accordance with the para 17 (a) of the Sampling Standard version 4. This is acceptable to the verification team.				
CAR ID	04	Section no.	E.3.5.5	Date: 16/10/2018
Description of CAR				
The value of actual ERs and estimated ERs stated on the cover page is not consistent with the section F.5 of the MR and the sum of the ERs for each CPAs. In section F.5 of the MR, ex-ante estimated emission reductions have been provided for the CPAs, however it is not clear how the values have been calculated for each CPA.				
CME response				Date: 19/10/2018
<i>PP corrected the value on the cover page and F5. The ex-ante values are based on the emission reduction calculations for the CPAs.</i>				
Documentation provided by the CME				
<i>1_Nigeria PoA 5067_MR_MP6_v02_revised date</i>				
DOE assessment				Date: 23/10/2018
The values of the actual ERs have been corrected on the cover page and only total value for PoA is provided (not for each CPA separately). Also, the values for ex-ante emission reductions are still inconsistent. The value for the ex-ante estimation for CPA 1 uses the value only from 2017 and not from 2018, as the value for the year 2018 is different, it needs to be clarified how the value provided is the corrected representation for the reported monitoring period.				
CME response				Date: 24/10/2018
PP corrected accordingly.				
Documentation provided by the CME				
<i>1_Nigeria PoA 5067_MR_MP6_v03_revised date</i>				
DOE assessment				Date: 25/10/2018

The values for actual ERs and the ex-ante ERs have been corrected on the cover page of the monitoring report and consistent with the values provided in the section F.5 of the monitoring report.
 The value for the ex-ante estimation for CPA 1 have also been corrected and is provided based on the number of days of the monitoring period in 2017 and 2018.

Table 4. FARs from this verification

FAR ID	xx	Section No.		Date: DD/MM/YYYY
Description of FAR				
CME response				Date: DD/MM/YYYY
Documentation provided by the CME				
DOE assessment				Date: DD/MM/YYYY

Appendix 5. Data and parameters fixed ex ante

Data/Parameter	$B_{old, capita}$ Average baseline fuelwood consumption per capita per year
Default values used:	0.692 t/year
Purpose of data	Baseline emission calculation
Source and Verification of the source	UN Statistics Database, Value for 2006; Nigeria Census Data 2006 Cross verified from the registered CPA-DDs/B04/

Data/Parameter	η_{old} Efficiency of the baseline system being replaced
Default values used:	0.10
Purpose of data	Baseline emission calculation
Source and Verification of the source	AMS II.G. (Ver. 3)/B02/

Data/Parameter	L_{NRB} Net-to-gross adjustment factor for NRB Leakage
Default values used:	0.95
Purpose of data	Baseline emission calculation
Source and Verification of the source	AMS II.G. (Ver. 03)/B02/

Data/Parameter	L_{PoA} Net-to-gross adjustment factor for PoA Leakage
Default values used:	0.95
Purpose of data	Baseline emission calculation
Source and Verification of the source	AMS II.G. (Ver. 03)/B02/

Data/Parameter	$f_{NRB, y}$ Fraction of woody biomass saved by the project activity in period y that can be established as non-renewable biomass
Default values used:	0.77
Purpose of data	Baseline emission calculation
Source and Verification of the source	FAO (2010): Global Forest Resource Assessment 2010, Country Report Nigeria, http://www.fao.org/forestry/20262-1-1.pdf

Data/Parameter	$NCV_{biomass}$ Net calorific value of the non-renewable woody biomass that is substituted
Default values used:	0.015 TJ/t
Purpose of data	Baseline emission calculation
Source and Verification of the source	AMS II.G (Ver. 3)/B02/

Data/Parameter	$EF_{projected_fossilfuel}$ Emission factor for the substitution of non-renewable biomass by similar consumers
Default values used:	81.6 tCO ₂ /TJ
Purpose of data	Baseline emission calculation
Source and Verification of the source	AMS II.G (Ver. 3)/B02/

Data/Parameter	HH_CAP Maximum number of eaters possible per specific ICS as applied in the specific CPA
Default values used:	8
Purpose of data	Not used for emission reduction calculation. Only as cap for monitored parameter $N_{eaters, appliance}$
Source and Verification of the source	Manufacturer's specifications

Data/Parameter	$\eta_{specified}$ Efficiency of the system being deployed as per manufacturer specification
Default values used:	For CPA 1, 2 and 4: 52% For CPA 3: 32.6%
Purpose of data	Not used for emission reduction calculation. Only for demonstration of fulfilment of eligibility criterion 2 (for CPA inclusion).
Source and Verification of the source	Manufacturer's specifications

Appendix 6. Data and parameters monitored

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	N _{eaters,appliance}
Measuring frequency/Time Interval:	Once for this monitoring period
Reporting frequency:	Annual (Once for this monitoring period)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	No monitoring equipment used to determine the average number of eaters per appliance.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Not Applicable since no equipment is used to determine the parameter.
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	No equipment used hence the calibration requirement not applicable.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	No equipment used hence the calibration requirement not applicable.
Company performing the calibration (internal or external calibration):	No equipment used hence the calibration requirement not applicable.
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	No equipment used hence the calibration requirement not applicable.
Is (are) calibration(s) valid for the whole reporting period?	No equipment used hence the calibration requirement not applicable.
If applicable, has the reported data been cross-checked with other available data?	Yes, the value of parameter has been cross checked with the monitored database /13/, inspection database /04/ and survey questionnaire/09/ were checked during the OSV.
How were the values in the monitoring report verified?	For CPA 1, 2 and 4: 7.32 For CPA 3: 7.46 The values mentioned in the MR have been cross checked with the inspection database. The data was then verified against the sample households checked during the site visit. For the parameter N _{eaters,appliance} , the value has been calculated in accordance with the PoA-DD/B04/ and section D.7.1 of the CPA-DDs /B04/. As per the generic CPA-DD the value was capped to 8. The actual calculated value is lower than 8. Hence, it is acceptable to the verification team and is found consistent with the description provided in the approved CPA-DDs /B04/. For all the households, where the number of eaters was reported as more than 8, in accordance with the section D.6.2 of the

	<p>CPA-DDs/B04/, the number of eaters has been used as 8 in all such cases. The reported value of the parameter for the previous verification (MP 5) is/B09/:</p> <p>For CPA 1, 2 and 4: 7.70 For CPA 3: 7.31</p> <p>The ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/ is:</p> <p>For CPA 1, CPA 2 and CPA 4: 8 For CPA3: 8</p> <p>The value of the parameter has decreased for CPA 1, 2 and 4 and has marginally increased for CPA 3. The values have changed due to actual responses in the sample and is within the range thus acceptable to the verification team. The reported values of the number of eaters have also been compared with the ex-ante values and it is observed that the reported values are less than the ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/.</p>
<p>Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.</p> <p>The appropriate QA/QC procedures have been followed for the monitoring parameter. The monitoring surveys have been conducted by the trained personnel of the CME, atmosfair gGmbH/10/ under the supervision of CME's database administrator/manager.</p>
<p>In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?</p>	<p>NA. Full data is available for the monitoring period.</p>

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
<p>Data / Parameter: (as in monitoring plan of PDD):</p>	<p>N_y Adjusted total number of appliances deployed until period y</p>
<p>Measuring frequency/Time Interval:</p>	<p>Continuous monitoring and recording of n_i</p>
<p>Reporting frequency:</p>	<p>Annual (Reported once for the monitoring period)</p>
<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>Yes</p>
<p>Details of monitoring equipment:</p>	<p>No Monitoring equipment is used. Source of data is from Sales receipts and sales records database.</p>
<p>Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?</p>	<p>NA</p>
<p>Calibration frequency /interval:</p>	<p>NA</p>

Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	NA
Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	Yes, reported data for each CPA has been cross checked with the sample sales receipts and monitored database /13/.
How were the values in the monitoring report verified?	<p>CPA 1: 3,198 CPA 2: 3,182 CPA 3: 2,235 CPA 4: 2,527</p> <p>The total number of appliances deployed until period y is calculated based on information monitored through the sales records database/13/.</p> $N_y = \sum_{i=1}^y n_i \cdot OT_{adjusted,i,y}$ <p>n_i= Number of appliances deployed in period i as reported in the sales records database and adjusted to account for delays between sales date and first use.</p> <p>$OT_{adjusted,i,y}$ = Adjustment factor for reduced operational time of appliances deployed in monitoring period y.</p> <p>The reported data has been cross-checked against spot check user records and compared with the MR and the ER sheet.</p> <p>The data was then verified against the sample households checked during the site visit.</p> <p>The reported value of the parameter for the previous verification (MP 5) is/B09/:</p> <p>CPA 1: 3,198 CPA 2: 3,182 CPA 3: 2,235 CPA 4: 2,527</p> <p>The ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/ is:</p> <p>CPA 1: 2,541 (in year 2017) and 2,414 (in year 2018) CPA 2: 3,200 CPA 3: 3,750</p>

	<p>CPA 4: 9,600</p> <p>The value of the parameter hasn't changed since the previous verification/B09/. The reported value for CPA1 is slightly higher than the ex-ante estimates provided in the CPA-DD/B04/ and is less for CPA 2, CPA 3 and CPA 4/B04/ compared to the ex-ante estimates provided in the CPA-DDs/B04/. All the CPAs, viz. CPA 1, CPA 2, CPA 3 and CPA 4 continue to remain within the micro-scale limit of the energy savings from the CPAs/04/.</p>
<p>Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC process are in place.</p> <p>The appropriate QA/QC procedures have been followed for the monitoring parameter. The database is being maintained by the CME's database administrator/manager, trained personnel of the CME, atmosfair gGmbH/10/.</p>
<p>In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?</p>	<p>NA. Full data is available for the monitoring period.</p>

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	DO _y Statistically adjusted drop out from total population of appliances in period y
Measuring frequency/Time Interval:	Annual
Reporting frequency:	Annual (Once for the monitoring period)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	No monitoring equipment is used. Questionnaire were prepared by the PP/09/ to find out the dropout rate during the survey period.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	NA
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	NA
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	NA

Company performing the calibration (internal or external calibration):	NA
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	NA
Is (are) calibration(s) valid for the whole reporting period?	NA
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the interview questionnaire/09/ and inspection database /09/.
How were the values in the monitoring report verified?	<p>For CPA 1, CPA 2 and CPA 4: 19.57% For CPA 3 : 6.67 %</p> <p>The reported data has been cross-checked against spot check user records and compared with the MR and the ER sheet.</p> <p>The data was then verified against the sample households checked during the site visit.</p> <p>The reported value of the parameter for the previous verification (MP 5) is/B09/: For CPA 1, CPA 2 and CPA 4: 15.57% For CPA3: 8.22%</p> <p>The ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/ is: For CPA 1, CPA 2 and CPA 4: 5% For CPA3: 5%</p> <p>The value of the parameter has marginally increased for CPA 1, 2 and 4 and has decreased for CPA 3. The values have changed due to actual responses in the sample and is within the range thus acceptable to the verification team. The reported values of the drop outs have also been compared with the ex-ante values and it is observed that the reported values are higher than the ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/.</p>
Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	<p>Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC process are in place.</p> <p>Actual monitored value for DOy for CPA 1, CPA 2 and CPA 4 is 19.57%. CME has applied lower bound value (31.01 %) in a conservative manner as the desired precision level is not achieved.</p> <p>The appropriate QA/QC procedures have been followed for the monitoring parameter. The drop out surveys have been conducted by the trained personnel of the CME, atmosfair gGmbH/10/ under the supervision of CME's database administrator/manager.</p>
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered	NA. Full data is available for the monitoring period.

monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	
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Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	η_{new} Adjusted average efficiency of the system being deployed
Measuring frequency/Time Interval:	Annual Monitoring
Reporting frequency:	Annual (Once for this monitoring period)
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Details of monitoring equipment:	<p>1. Weighing scale: KD 8000 Serial Number: ESN5678224992T Calibrated/12-3/ on 16/07/2018</p> <p>2. Thermocouple: Greisinger Präzisionsthermometer GMH 3710 Serial Number: 32402476 (Calibrated /12-2/ on 16/07/2018)</p>
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Accuracy Class of equipment: <p>1. Weighing scale: +/- 1 g</p> <p>2. Thermocouple: Temperature range -199.99° C - +199.99° C</p>
Calibration frequency /interval: Is it monitoring methodology /CDM EB guidance / local or national standards / manufacturers specification	CME got the Thermocouple and weighing scale duly calibrated on 16/07/2018 before the start of monitoring /12-2//12-3/.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	NA
Company performing the calibration (internal or external calibration):	Ecolab Nig. Ltd. (External calibration)/12-2//12-3/
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross-checked with the WBT test records/08/, ER sheet /04/ and MR /02/.
How were the values in the monitoring report verified?	<p>The value for the reported data was verified against the WBT test records /08/.</p> <p>For CPA 1, CPA 2 and CPA 4: 34.73 % For CPA 3: 28.50 %</p> <p>The reported value of the parameter for the previous verification (MP 5) is /B09/:</p>

	<p>For CPA 1, CPA 2 and CPA 4: 40.09 % For CPA 3: 27.46 %</p> <p>The ex-ante estimated value of the parameter in the registered/included CPA-DDs/B04/ is: For CPA 1, CPA 2 and CPA 4: 52 % For CPA 3: 52 %</p> <p>The value of the parameter has decreased for CPA 1, 2 and 4 and has marginally increased for CPA 3 from the previous verification. The values have changed due to actual results from the efficiency tests in the sample and is within the range thus acceptable to the verification team. The slight increase in the efficiency value for the G3300 stove used in CPA 3 compared to the previous monitoring period could be attributed to the range of values observed in the WBT tests (23.23 % to 33.16 %) and to the special occurrences of the climate/wind conditions during the tests. The reported values of the efficiency have also been compared with the ex-ante values and it is observed that the reported values are much less than the ex-ante estimated values of the parameter in the registered/included CPA-DDs/B04/.</p>
<p>Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC process are in place.</p> <p>The appropriate QA/QC procedures have been followed for the monitoring parameter. The WBTs were conducted by personnel trained in conducting WBTs/10/ from the (atmosfair gGmbH). The CME, atmosfair gGmbH has provided the WBT test training according to the WBT protocol/B10/. The equipment used for testing efficiency have been calibrated prior to the WBT tests /12-2/ /12-3/.</p>
<p>In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?</p>	<p>NA. The data has been monitored in accordance with the registered monitoring plan.</p>

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	29 December 2017	Revision to align with the requirements of the “CDM validation and verification standard for programme of activities” (version 01.0).
01.0	5 June 2015	Initial publication.

<i>Version</i>	<i>Date</i>	<i>Description</i>
		Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: programme of activities, verifying and certifying
