



**Validation report form for
CDM programme of activities
(Version 03.0)**

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

BASIC INFORMATION

Title of the programme of activities (PoA)	Improved cook stoves and sustainable charcoal initiative
Version number of the validation report	Version 2.0
Completion date of the validation report	12 th December 2019
Version number of PoA-DD to which this validation report applies	Version 6.0 dated 9 th March 2020
Date when PoA-DD was uploaded for global stakeholder consultation	22 nd June 2019
Coordinating/managing entity (CME)	Nature Club of Rajasthan
Host Parties	India
Applied methodologies and standardized baselines	AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 AMS-I.E. Switch from non-renewable biomass for thermal applications by the user --- Version 9.0
Mandatory sectoral scopes	Sector 3: Energy Demand Sector 5: Chemical Industries Sector 1: Energy industries (renewable - / non-renewable sources)
Conditional sectoral scopes, if applicable	Not applicable
Name and UNFCCC reference number of the DOE	EPIC Sustainability Services Private Limited (E-0062) Report no: ESSPL/CDM/2018/208
Name, position and signature of the approver of the validation report	R. Vijayaraghavan, Lead Auditor <i>R. Vijayaraghavan</i> K.Suryanarayana Murthy, Managing Director (approver of this report) <i>K.Suryanarayana Murthy</i>

SECTION A.Executive summary

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Atmosfair gGmbH (hereinafter referred to as “Atmosfair”) on behalf of Nature Club of Rajasthan has contracted EPIC Sustainability Services Private Limited (hereinafter referred to as EPIC) for validation of the PoA project titled “Improved cook stoves and sustainable charcoal initiative”. Nature Club of Rajasthan is the coordinating/management entity (CME) is responsible for developing and overseeing the PoA whereas atmosfair is the project participant. The purpose of the proposed national level Programme of Activities (PoA) is to reduce fuel wood consumption of traditional stove users by disseminating improved cook stoves, mainly micro wood gasifier stoves (hereinafter referred to as project cookstoves or improved cookstoves) and the consumption of conventional charcoal by traditional charcoal users shall be reduced by providing them charcoal generated in project cook stoves. The PoA also reduces fuel wood consumption by providing users with 100% renewable biomass as a fuel, such as waste wood from plantations in India. This shall not only contribute to natural resource conservation, but also reduce air pollution and facilitate the abatement of greenhouse gas (GHG) emissions. Carbon revenues shall enable the CME to meet the PoA management costs and undertake each CPA on a wide scale, thus helping the proposed programme to achieve its potential to encompass the entire sector on a national scale.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board's decisions. The validation team has employed a risk-based approach in the validation based on the recommendations in the Validation and Verification Standard for PoA version 2.0 (VVS-PoA^{1/}), focusing on the identification of significant risks for project implementation and the generation of CERs.

SECTION B.Validation team, technical reviewer and approver

B.1.Validation 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)	Validation findings
1.	Lead Auditor	IR	Radhamadhavan	Vijayaraghavan	EPIC	√	√	√	√
2.	Auditor	IR	R	Madhukar	EPIC	√	-	√	√
3.	Technical Expert	ER	A	Kamath	EPIC	√	√	√	√

B.2.Technical reviewer and approver of the validation 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	D	Siddaramu	EPIC
2.	Technical Expert	ER	S	Ranganathan	EPIC
3.	Approver	IR	Murthy	K. Suryanarayana	EPIC

SECTION C.Means of validation

C.1.Desk/document review

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As a first step, the validation team has reviewed the PoA-DD version 1.0^{/2/} and additional background documents submitted by the project participant. Based on the review, the validation team has issued corrective action requests/ clarification requests. As a result of these findings, the PP has revised the PoA-DD version 6.0^{/2/} (hereinafter referred to as final PoA-DD). The resolution of the findings by the validation is presented in Appendix 4 of this report.

C.2.On-site inspection

Duration of on-site inspection: 6 th September 2019				
No.	Activity performed on-site	Site location	Date	Team member
1.	- General information about the project. - Serious consideration of CDM. - Chronology of Events/ Implementation cycle of the project activity. - Barriers faced/overcome in the processes (additionality) - Local Stakeholder consultation processes - Legal/ Statutory Clearances and Agreements Signed - Baseline determination - Application of appropriate Methodology - Operation and maintenance Procedures - Technical details of project - Data monitoring and storage practices - Calibration and maintenance requirement of the equipment - Monitoring Methodology	CME office at Jaipur	6 th September 2019	Lead Auditor and Technical expert

C.3.Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Sharma	Dr. Ritu Raj	Head-Nature Club of Rajasthan	6 th September 2019	As above	Lead Auditor and Technical expert
2.	Goyal	Hitesh	Coordinator-Nature Club of Rajasthan	6 th September 2019	As above	Lead Auditor and Technical expert
3.	Erdman	Nele	Project Manager-Atmosfair	6 th September 2019 over Skype from Berlin, Germany	As above	Lead Auditor and Technical expert
4.	Banerjee	Moulindu	Project Cookstove assembler-Sapient Infotech	6 th September 2019	As above	Lead Auditor and Technical expert

C.4.Sampling approach

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No sampling approach is used for this validation scope by the validation team.

C.5.Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation of compliance	No. of CL	No. of CAR	No. of FAR
Programme of activities			
Identification of programme type	-	-	-

Description of PoA	-	3 (CAR 1, CAR 4 and CAR 11)	-
Management system	-	-	-
Demonstration of additionality of PoA	-	1 (CAR 3)	-
Start date and duration of PoA	-	-	-
Environmental impacts	-	-	-
Socio-economic impacts	-	-	-
Local stakeholder consultation	-	1 (CAR 8)	-
Sustainable development co-benefits	-	-	-
Approval	1 (CL 1)	-	-
Authorization	-	-	-
Modalities of communication	1 (CL 2)	-	-
Global stakeholder consultation	-	-	-
Generic component project activities			
General description of generic CPA	1 (CL 3)	-	-
Selection of methodologies and standardized baselines	-	-	-
•Deviation from methodologies and/or methodological tools	-	-	-
•Clarification on applicability of methodology, tool and/or standardized baseline	-	-	-
Application of methodologies and standardized baselines			
•General	-	1 (CAR 2)	-
•Project boundary, sources and GHGs	-	-	-
•Baseline scenario	-	-	-
•Estimation of emission reductions or net anthropogenic removals	-	2 (CAR 6, CAR 7)	-
•Monitoring plan	-	3 (CAR 5, CAR 9 & CAR 12)	-
Crediting period type and duration	-	-	-
Eligibility criteria for inclusion of CPAs	-	2 (CAR 10 & CAR 13)	-
Others (please specify)	-	-	-
Total	3	13	0

SECTION D.Validation findings

D.1.Programme of activities

D.1.1.Identification of programme type

Means of validation	As per para 37 of VVS-PoA ^{1/} v2.0, the validation team determined whether the proposed CDM PoA will include only non-A/R CPAs or A/R CPAs.
Findings	No CAR/CL/FAR is raised in this section.
Conclusion	The purpose of the proposed national level Programme of Activities (PoA) is to reduce fuel wood consumption of traditional stove users by disseminating project cook stoves and the the consumption of conventional charcoal by traditional charcoal users shall be reduced by providing them charcoal generated in project coostoves. The PoA also reduces fuel wood consumption by providing cookstove users with 100% renewable biomass as a fuel, such as waste wood from plantations in India. Since the source of renewable biomass is not known to CME as on today, CME mentioned that renewable biomass would fit in one of the five conditions as specified in the Glossary of CDM terms v10.0. CME has implemented two specific case CPAs so far which are based on generic CPA no 2

	where renewable biomass was not considered. The validation team has accepted the argument of CME regarding source/definition of renewable biomass. The validation team has reviewed the PoA DD and confirmed that the PoA would include non-A/R CPAs only. Refer Appendix 6 and 7 of this report for more details.
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D.1.2. Description of PoA

Means of validation	As per para 38 to 43 of VVS-PoA ¹⁷ v2.0, the validation team has determined whether the description of the proposed CDM project activity in the PoA PDD is accurate, complete, and provides an understanding of the proposed CDM PoA.
Findings	Two CARs (CAR 1 and CAR 4) were raised in this section.
Conclusion	The purpose of the proposed national level Programme of Activities (PoA) is to reduce fuel wood consumption of traditional stove users by disseminating project cook stoves and the the consumption of conventional charcoal by traditional charcoal users shall be reduced by providing them charcoal generated in project cook stoves. The PoA also reduces fuel wood consumption by providing users with 100% renewable biomass as a fuel, such as waste wood from plantations in India. The validation team has confirmed correctness and accuracy of project design of major equipments, processes, energy requirements of the PoA. The validation team based on the review of PoA- DD, has confirmed the PoA contains 3 generic CPAs. The description of the same is briefed below. Generic CPA no 1: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0. Generic CPA no 2: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0. Generic CPA no 3: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The

	emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0. Refer Appendix 6 and 7 of this report for more details.
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D.1.3.Management system

Means of validation	As per para 44 of VVS-PoA ^{/1/} v2.0, the validation checked if the proposed is implemented and operated in accordance with the criteria and terms set out in the present PoA DD and the corresponding generic CPA-DDs.
Findings	No CAR/CL/FAR was raised in this section.
Conclusion	The proposed project is implemented and operated in accordance with the criteria and terms set out in the PoA DD. The validation team has checked the role of CME, PP and project owner for each CPA and confirmed that the management system is implementable and accepted. CME has taken efforts for training and capacity development for personnel implementing the PoA and CPAs, procedures are framed for technical review of inclusion of CPAs and to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA). Records and documentation control process for each CPA under the PoA are robust. Hence accepted. Refer Appendix 6 and 7 of this report for more details.

D.1.4.Demonstration of additionality of PoA

Means of validation	As per para 45 of VVS-PoA ^{/1/} v2.0, the validation team assessed whether the additionality of the proposed CDM PoA was demonstrated in accordance with the "CDM project standard for programme of activities" ^{/1/} v2.0.
Findings	One CAR (CAR 3) was raised in this section
Conclusion	Refer Appendix 6 and 7 of this report for more details.

D.1.5.Start date and duration of PoA

Means of validation	As per para 46 to 50 of VVS-PoA ^{/1/} v2.0, the validation team determined whether the start date and duration of a proposed CDM PoA comply with the relevant provisions in the "CDM project standard for programmes of activities" ^{/1/} v2.0.
Findings	No CAR/CL/FAR was raised in this section
Conclusion	As per the Glossary of CDM terms^{/4/} version 10.0, start date of the PoA is the date on which the CME officially notifies the secretariat and the DNA of their intention to seek the CDM status or the date of publication of the PoA-DD for global stakeholder consultation. The CME has chosen date of notification to DNA and UNFCCC for determining the start date of the PoA. The validation team notified of the PoA to DNA and UNFCCC on 7th June 2018. The validation team has accepted the date of notification as the start date of the proposed PoA project activity by reviewing the UNFCCC website^{/5/} and email^{/5/} sent to both UNFCCC&DNA. The expected operational lifetime is 28 years from the date of start date of the PoA. Refer Appendix 6 and 7 of this report for more details.

D.1.6.Environmental impacts

Means of validation	As per paragraph 51 to 55 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether the PPs conducted an analysis of the environmental impacts of
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	the proposed CDM project activity including transboundary impacts, and whether those impacts are considered significant by them.
Findings	No CAR/CL/FAR was raised in this section
Conclusion	Demonstration of whether EIA is required or not for the project is conducted at PoA level. In accordance with Federal Republic of India regulations ^{/6/} , an EIA is not required for the distribution and implementation of improved cookstoves, the substitution of conventional charcoal and the substitution of non-renewable biomass. The validation team has reviewed the MINISTRY OF ENVIRONMENT AND FORESTS notification and found that the cookstove technology are not included. Hence EIA is not required for this PoA. Appendix 6 and 7 of this report for more details.

D.1.7.Socio-economic impacts

Means of validation	As per para 56&57 of VVS-PoA ^{/1/} version 2.0, the validation team determined whether the analysis of socio-economic impacts and, if applicable, a socio-economic impact assessment was conducted for the whole PoA or will be conducted at the CPA level.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	The validation team determined the analysis of socio-economic impacts are not required to be conducted for this kind of project as well. Hence accepted at the PoA level. The socio-economic impacts analysis is conducted at the PoA level. In accordance with Federal Republic of India regulations ^{/6/} , a socio-economic impacts analysis is not required for the distribution and implementation of improved cookstoves, the substitution of conventional charcoal and the substitution of non-renewable biomass;. The validation team has reviewed the MINISTRY OF ENVIRONMENT AND FORESTS notification and found that the technology in question are not included. Hence socio-economic impacts analysis is not required for this PoA. Appendix 6 and 7 of this report for more details.

D.1.8.Local stakeholder consultation

Means of validation	As per the para 58 to 66 of VVS for PoA ^{/1/} version 2.0, the validation team has determined whether the PPs completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed CDM project activity.
Findings	One CAR (CAR 8) was raised in this section
Conclusion	Local stakeholder consultation would be conducted at the CPA level. Hence not conducted at the PoA level. Hence accepted.

D.1.9.Sustainable development co-benefits

Means of validation	As per para 67 of VVS-PoA ^{/1/} , version 2.0, the validation team checked whether a document describing how the coordinating/managing entity intends to monitor the sustainable development co-benefits of the proposed CDM PoA was developed by the coordinating/managing entity separately from the monitoring plan.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	The validation found out that the CME did not prefer to monitor sustainable development co-benefits. Hence accepted

D.1.10.Approval

Means of validation	As per the para 68 to 74 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether (DNA) of each Party indicated as being involved in the proposed CDM project activity has provided a written letter of approval.
Findings	One CL (CL 1) was raised in this section
Conclusion	Appendix 6 and 7 of this report for more details.

D.1.11.Authorization

Means of validation	As per para 75 to 80 of VVS-PoA ^{/1/} version 2.0, the validation team determined
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	whether each project participant of the proposed CDM PoA has been authorized to participate in the PoA by at least one Party involved in the letter of approval, or in a separate authorization letter.
Findings	One CL (CL 1) was raised in this section
Conclusion	Appendix 6 and 7 of this report for more details.

D.1.12.Modalities of communication

Means of validation	As per the paragraph 81 to 89 of VVS-PoA ^{/1/} version 2.0, the validation team has checked the corporate identity of all PPs, and focal points included in the MoC statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories and has checked that the MoC statement has been correctly completed and duly authorized.
Findings	One CL (CL 2) was raised in this section
Conclusion	Appendix 6 and 7 of this report for more details.

D.1.13.Global stakeholder consultation

Means of validation	As per para 158 to 169 of VVS-PoA ^{/1/} version 2.0, the validation team determined whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PoA-DD of the proposed CDM PoA.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	The PoA DD was webhosted on 22 nd June 2019. But no comments received.

D.2.Generic component project activities**D.2.1.General description of generic CPA**

Means of validation	As per paragraph 90 & 91 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether the description of the proposed CDM project activity in the PoA PDD is accurate, complete, and provides an understanding of the proposed CDM CPA.
Findings	One CL (CL 3) was raised in this section
Conclusion	The purpose of the proposed national level Programme of Activities (PoA) is to reduce fuel wood consumption of traditional stove users by disseminating improved cook stoves and the the consumption of conventional charcoal by traditional charcoal users shall be reduced by providing them charcoal generated in micro wood gasifier stoves. The PoA also reduces fuel wood consumption by providing ICS users with 100% renewable biomass as a fuel, such as waste wood from plantations in India. Refer Appendix 6 and 7 of this report for more details.

D.2.2.Selection of methodologies and standardized baselines**D.2.2.1.Deviation from methodologies and/or methodological tools**

Means of validation	As per paragraph 93-95 of VVS-PoA ^{/1/} version 2.0, the validation has determined whether the PP deviated from the approved baseline and monitoring methodology and/or methodological tool.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	There is no deviation from the applied methodology.

D.2.2.2.Clarification on applicability of methodology, tool and/or standardized baseline

Means of validation	As per paragraph 96 of VVS-PoA ^{/1/} version 2.0, the validation team has determined to ensure that the request is not submitted with the intention of revising an approved methodology, an approved tool and/or an approved standardized baseline to expand its applicability.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	There is no such request.

D.2.3. Application of methodologies and standardized baselines**D.2.3.1.General**

Means of validation	As per paragraph 97 to 104 of VVS-PoA ^{/1/} version 2.0, the validation has determined whether the baseline and monitoring methodology selected by the PPs are the valid versions of those approved by the EB and has checked that the selected baseline and monitoring methodology is applicable to the proposed CDM project activity and that the selected version is valid at the time of submission of the proposed CDM project activity for registration.
Findings	One CAR (CAR 2) was raised in this section
Conclusion	Refer Appendix 6 and 7 of this report for details.

D.2.3.2.Project boundary, sources and GHGs

Means of validation	As per paragraph 105 to 110 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether all main GHG emission sources, the physical delineation of the proposed CDM project activity and other relevant project and baseline emission sources covered in the selected methodology and, where applicable, the selected standardized baseline are included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	Refer Appendix 6 and 7 of this report for more details.

D.2.3.3.Baseline scenario

Means of validation	As per paragraph 111 to 121 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether the baseline identified for the proposed CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the project activity and determined whether any procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied. Refer Appendix 6 and 7 of this report for more details.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	Refer Appendix 6 and 7 of this report for more details.

D.2.3.4.Estimation of emission reductions or net anthropogenic removals

Means of validation	As per para 122 to 126 of VVS-PoA ^{/1/} version 2.0, the validation team determined whether the description of how to undertake the ex-ante and ex post calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions to be achieved by each of the corresponding CPAs is in accordance with the applied methodologies including applicable tools and, where applicable, the applied standardized baselines and the "Standard: Sampling and surveys for CDM project activities and programme of activities" ^{/7/} v7.0.
Findings	Two CARs (CAR 6 and CAR 7) were raised in this section
Conclusion	Refer Appendix 8 of this report for more details.

D.2.3.5.Monitoring plan

Means of validation	As per paragraph 127 to 134 of VVS-PoA ^{/1/} version 2.0, the validation team has determined whether the description of the monitoring plan included in the PDD complies with the approved monitoring methodology including applicable tools and, where applicable, the "Standard for sampling and surveys for CDM project activities and programme of activities" ^{/7/} version 7.0; confirmed whether the PPs have chosen to delay the submission of the monitoring plan for the proposed CDM project activity.
Findings	One CAR (CAR 5) was raised in this section
Conclusion	Refer Appendix 8 of this report for more details.

D.2.4.Crediting period type and duration

Means of validation	As per para 135 of VVS-PoA version 2.0, the validation team has determined whether the coordinating/managing entity defined the type and duration of the crediting period applicable to all corresponding CPAs in accordance with the relevant requirements in the “CDM project standard for programmes of activities” ^{/1/} v2.0.
Findings	No CAR/CL/FAR is raised in this section
Conclusion	The validation team has accepted the the type (renewable) and duration of the crediting period (7 years) applicable to all corresponding CPAs in accordance with the relevant requirements in the “CDM project standard for programmes of activities” ^{/1/} v2.0.

D.2.5.Eligibility criteria for inclusion of CPAs

No.	Eligibility criterion - Category/Required condition	Means of validation	Findings	Conclusion
1.	The PoA contains three generic CPAs. The validation of eligibility criteria for inclusion of each CPA is reported in Appendix 6 and 7 of this report in detail.	Refer Appendix 6 and 7 of this report for details	Two CAR (CAR 10 & CAR 13) was raised in this section.	Refer Appendix 6 and 7 of this report for details

SECTION E.Internal quality control

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After the completion of assessment by the validation team all the relevant documentation is submitted to a qualified, Independent Technical reviewer as part of EPIC’ internal quality control system. A Technical reviewer team is appointed to review the draft final validation report (Draft FVR). The comments made by the Technical reviewer team are taken into consideration and incorporated in the final FVR. The technical reviewer team assesses whether all the reporting requirements have been fulfilled and whether all the issues raised were closed satisfactorily by the validation team with justification. The technical review process can also raise issues in this regard which is resolved further by the validation team to the satisfaction of the technical reviewer. The technical reviewer team either accepts or rejects the report made by the validation team. The final report (after resolutions of all findings) is then submitted to the Head-operations for review and approval.

SECTION F.Validation opinion

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Atmosfair, the PP, has contracted EPIC Sustainability Services Private Limited on behalf of Nature Club of Rajasthan for validation of the PoA project titled “Improved cook stoves and sustainable charcoal initiative”. Nature Club of Rajasthan, the coordinating/management entity (CME), is responsible for developing and overseeing the PoA. The purpose of the proposed national level Programme of Activities (PoA) is to reduce fuel wood consumption of traditional stove users by disseminating improved cook stoves and the the consumption of conventional charcoal by traditional charcoal users shall be reduced by providing them charcoal generated in project cook stoves. The PoA also reduces fuel wood consumption by providing ICS users with 100% renewable biomass as a fuel.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board’s decisions.

The purpose of a validation is to have an independent third party assessment of the project design, applicability of the project under the methodologies, baseline of the project, additionality, monitoring plan, emission reduction calculation etc and the project’s compliance with relevant UNFCCC and host country criteria. The validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs). The validation team has employed a risk-based approach in the validation based on the

recommendations in the Validation and Verification Standard for Programme of Activities version 2.0 (VVS-PoA⁽¹⁾), focusing on the identification of significant risks for project implementation and the generation of CERs. The validation team has confirmed that the proposed CDM PoA would achieve the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the generic CPA-DDs.

Project title:	Improved cook stoves and sustainable charcoal initiative
PoA-DD	Version 6.0 , dated 9 th March 2020
Sector and applied methodology	Sector 3: Energy Demand AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 Sector 5: Chemical Industries AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 Sector 1: Energy industries (renewable - / non-renewable sources) AMS-I.E.Switch from non-renewable biomass for thermal applications by the user --- Version 9.0

Appendix 1.Abbreviations

Abbreviations	Full Texts
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
ER	External Resources
GHG	Green House Gas
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resources
MoC	Modalities of Communication
NCV	Net Calorific Value
PCP	Project Cycle Procedure
PDD	Project Design Document
PLC	Private Limited Company
UNFCCC	United Nations Convention on Climate Change
VVS	Validation and Verification Standard
WBT	Water Boiling Test

Appendix 2.Competence of team member and technical reviewers

The following validation team has been assigned to carry out the validation of the project.

Name	Mr. R. Vijayaraghavan	Dr. R. Madhukar	Kamath. A	Dr. D. Siddaramu & Mr. S. Ranganathan
Role	Lead Auditor	Auditor	Technical expert	Technical Reviewer
Competence in the TA	Sector 1, 3	-	Sector 5	Sector 1,3, 5
Responsibility	Doc review, Interview, DVR preparation, DVR resolution, FVR preparation	Doc review, DVR preparation	Interview, onsite findings	Technical review

A brief summary of the personnel involved in the validation is indicated below.

Mr. R. Vijayaraghavan holds BE in Mechanical Engineering, M. Tech in Energy Conservation and Management and MBA in Technology Management. He is certified as Energy Auditor by Bureau of Energy Efficiency (BEE), Government of India. He has 11 years of working experience in energy sector including 6 years as validator. He has successfully completed around hundred CDM, VCS/GS projects. He has been qualified as Lead Auditor for Sectoral Scope 1, 3 and 13.

Dr. R. Madhukar, holds a Doctoral in Environmental Science. He has more than 9 years of experience in different industries, consultancy and research and development in Environmental Impact Assessment. He has three years' experience and has participated in the validation / verification of various CDM/VCS/GS/GHG globally. He has undergone extensive training on CDM validation and verification and has been qualified as Auditor for Sectoral Scope 1 under Technical Area "1.2-Renewables". He is also an ISO 26000 lead auditor certified by Professional Evaluation and Certification Board (PECB).

Mr A. Kamath holds a B. Tech Chemical engineering. He holds a B.Tech chemical engineering Degree. He has more than twenty years of work experience in chemical industries sector. His expertise relates to technical advisory, consulting, erection and commissioning and operational aspects. He is qualified as a sectoral expert for sector 5 related to chemical industries in accordance with procedures of EPIC Sustainability Services Pvt. Ltd.

Dr. D. Siddaramu holds a M.Sc., Ph.D in Environmental Science, with over 16 years of experience. A qualified Clean Development Mechanism (CDM) Lead Auditor, successfully registered more than 30 projects with United Nations Framework Convention on Climate Change (UNFCCC) and Verified Carbon Standard registry (VCS) registry; well versed with both National and International legal regime. Has hands on experience in Environmental Impact Assessment (EIA) studies pertaining to different Ecosystem; monitoring, collection & analyzing environmental samples and conducting socio-economic surveys; data analysis. Conducting CDM/VCS audits, preparation of validation protocols and reports. He is qualified for Sector 1& 3 based on CDM accreditation requirements and qualified lead auditor as per EPIC accreditation).

Mr. S. Ranganathan, holds a Bachelor's Degree in Chemical Engineering and has done diploma course in Management and completed the graduate ship course in Industrial Engineering and has an overall working experience of around thirty two years with twenty four years" experience in Chemical process industry (fertilizer & petrochemical manufacturing) covering production, technical services including energy audits and efficiency studies, waste heat -recovery, efficiency studies of boilers,vpower plants, safety audits and pollution control activities including waste water treatment, project management, corporate planning, sales, logistics in fertilizer & petrochemical industry. With respect to the thermal power plant the job assignment included the monitoring of flue gas exit temperatures, excess air used efficiency of fuel additives, condition of boiler refractory, insulation of steam lines etc. The experience also includes 5 years in process design & engineering for chemical process industry. He is qualified validator, verifier and technical reviewer and has eight years experience working with leading certification bodies. He is involved in the validation/verification of over 100 projects in various roles. He is a qualified expert for sectoral scope 5 in accordance with procedures of EPIC sustainability services Pvt. Ltd.

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC	Validation and Verification Standard for PoA v2.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20181221092105818/Reg_stan06v02.pdf Project Standard for PoA v2.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20181221092036152/Reg_stan03v02.pdf Project cycle procedure for PoA v2.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20181221092012422/PC_proc02v02.pdf	1	Publicly available
2	CME	Project Design Document for PoA v1.0 (webhosted) https://cdm.unfccc.int/UserManagement/FileStorage/H68AEL91IFKRMN2S3GCT7DUWQ4XPZO Project Design Document for PoA v2.0, v3.0, v4.0, v5.0 Project Design Document for PoA v6.0 (Request for registration)	2	CME
3	UNFCCC	AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 https://cdm.unfccc.int/methodologies/DB/HLXIKEIBAXB4EHO24H5IAB824MBD8 AMS.III.BG Emission reduction through sustainable charcoal production and consumption --- Version 3.0 https://cdm.unfccc.int/methodologies/DB/MVOAXD3LGD4ZJEKEERCT39ZL33JZA0 AMS.I.E Switch from non-renewable biomass for thermal applications by the user --- Version 9.0 https://cdm.unfccc.int/methodologies/DB/IO5FJLJFWT91R6B8SO5BC7TXSK27I2	3	Publicly available
4	UNFCCC	Glossary of CDM terms v10.0 https://cdm.unfccc.int/UserManagement/FileStorage/R0EBM36GQ81S7TVFCIPHKA2D4O5ZX	4	Publicly available
5	CME	Prior consideration notification ^{/5/} sent to UNFCCC and host DNA https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html Prior consideration notification email ^{/5/} to UNFCCC and host DNA	5	CME
6	MoEF	Federal Republic of India regulations on requirement of EIA for cookstove projects http://moef.nic.in/legis/eia/so1533.pdf	6	Publicly available
7	UNFCCC	Standard for sampling and surveys for CDM project activities and programme of activities" version 7.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20170509173058940/Methodology_standard05_EB94a02%28ver07.0%2C%204may17%29.pdf	7	Publicly available
8	India DNA and Germany DNA	LoA letters from Indian DNA and Germany DNA CDM website to get DNA of India and Germany https://cdm.unfccc.int/DNA/index.html	8	CME
9	CME/PP	MoC letter and supporting documents such as corporate identities	9	CME
10	MMSME	Ministry of Micro, Small, Medium Enterprises test report	10	CME
11	FSI	Forest report dated 2001	11	CME
12	CME	Beneficiary agreement with households	12	CME
13	UNFCCC	PoA-DD form version 9.0 https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20190607162832043/PDD_Form09v9.pdf	13	Publicly available
14	UNFCCC	Tool- Demonstration of additionality of small-scale project activities v12.0	14	Publicly available

		https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-21-v12.pdf Tool- Demonstration of additionality of microscale project activities v9.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-19-v9.pdf Tool- Assessment of debundling for small scale project activities v4.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-20-v1.pdf CME letter dated 11 th Dec 2019		
15	Clean Cooking Alliance	Water Boiling Test protocol version 4.2.3 https://www.cleancookingalliance.org/binary-data/DOCUMENT/file/000/000/399-1.pdf	15	Publicly available
16	UNFCCC	Calculation of the fraction of non-renewable biomass" v2.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v2.0.pdf	16	Publicly available
17	UNFCCC	Standard for application of the global warming potentials to CDM PA and PoA for the second commitment period of the Kyoto protocol" Version 1.0 (EB 69 Annex 3) https://cdm.unfccc.int/fag/Reference/Standards/meth/reg_stan02.pdf Decision 4/CMP 7 http://unfccc.int/resource/docs/2011/cmp7/eng/10a01.pdf#page=23 Table 2.14 of the errata to the contribution of Working Group I to the Fourth Assessment Report of the IPCC https://www.ipcc.ch/publications_and_data/ar4/wg1/en/errataserrata-errata.html (Evidence for Global Warming potential for methane)	17	Publicly available
18	UNFCCC	TOOL "Project and leakage emissions from biomass" v4.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-16-v4.pdf	18	Publicly available

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

Table 1. CLs from this validation

CL ID	1	Section no.	D.1.10	Date: 06/09/2019
Description of CL				
Please provide LOA letters for CME (India and Germany) and PP(Germany)				
CME response				Date: 08/09/2019
LoA letter for PP and CME is provided.				
Documentation provided by CME				
LoA letters ^{/B/}				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the LoA letters for Nature Club of Rajasthan and Atmosfair and accepted the same. Issue closed.				
CL ID	2	Section no.	D.1.12	Date: 06/09/2019
Description of CL				
Please provide MoC letter				
CME response				Date: 08/09/2019
Submitted herewith				
Documentation provided by CME				
MoC ^{/9/}				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the MoC and accepted the same. Issue closed.				

CL ID	3	Section no.	D.2.1	Date: 06/09/2019
Description of CL				
Pls add efficiency, model, dimensions, lifetime etc for project cookstove in the PoA-DD				
CME response				Date: 08/09/2019
PoA-DD is revised				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the revised PoA-DD and accepted that specifications are mentioned. Issue closed.				

Table 2. CARs from this validation

CAR ID	1	Section no.	D.1.2	Date: 06/09/2019
Description of CAR				
Project Standard v1.0 is old one. It is replaced with v2.0. Please update all sections of PoA-DD with v2.0 only.				
CME response				Date: 08/09/2019
It is revised to v2.0				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the revised PoA-DD where v2.0 of PS-PoA is used. Issue closed.				

CAR ID	2	Section no.	D.2.3.1	Date: 06/09/2019
Description of CAR				
Not all applicable conditions are demonstrated in the PoA-DD. Project Standard v1.0 is old one. It is replaced with v2.0. Please update all sections of PDD with v2.0 only.				
CME response				Date: 08/09/2019
Yes. All conditions are provided now.				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the PoA-DD and accepted the same. Issue closed. Refer Appendix 5 of this report for more details.				

CAR ID	3	Section no.	D.1.4	Date: 06/09/2019
Description of CAR				
Pls demonstrate additionality based on 3 components 1) Energy efficiency 2) Charcoal production 3) Replacement of NRB with RB. It is not clearly specified in the PoA-DD.				
CME response				Date: 08/09/2019
It is provided now clearly in the PDD.				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the PoA-DD and accepted the same. Issue closed. Refer Appendix 6 and 7 of this report for more details.				

CAR ID	4	Section no.	D.1.2	Date: 06/09/2019
Description of CAR				
Correct template was not used at certain pages of PoA-DD. For example at start page of CPA1,2,3.				
CME response				Date: 08/09/2019

It is corrected now.	
Documentation provided by CME	
Revised PoA-DD ^[2]	
DOE assessment	Date: 18/09/2019
The validation team has reviewed the PoA-DD and accepted the same. Issue closed.	

CAR ID	5	Section no.	D.2.3.5	Date: 06/09/2019
Description of CAR				
1. $B_{y=1, new, survey}$ is mentioned as ex-ante parameter which is not as per methodology.				
2. CME has adopted option 3- WBT for the calculation of $B_{y, savings}$. But options for determining loss of efficiency as per para 32a-d is not defined adequately in the PoA-DD.				
CME response				Date: 08/09/2019
1. It is corrected now. It is made into monitoring parameter				
2. PoA-DD modified to include para 32 of AMS.II.G				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
1. The validation team has reviewed the PoA-DD and accepted the same. Issue closed. Refer Appendix 8 of this report for more details.				
2. The validation team has accepted the options for determining loss of efficiency. Any one of the options as defined in para 32 of AMS.II.G v10.0 would be used for the calculation. This is applicable for all the three generic CPAs. Hence closed the issue.				

CAR ID	6	Section no.	D.2.3.4	Date: 06/09/2019
Description of CAR				
The leakage factor 0.95 was considered two times for AMS.I.E component which is not as per the methodology.				
CME response				Date: 08/09/2019
It is corrected and now only 0.95 is used				
Documentation provided by CME				
Revised PoA-DD				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the PoA-DD and accepted the same. Issue closed. Refer Appendix 8 of this report for more details.				

CAR ID	7	Section no.	D.2.3.4	Date: 06/09/2019
Description of CAR				
It is written in the PoA-DD that "Where RB is not used exclusively by ICS users (for example due to only seasonal availability), B _{I.E,y} can be determined based on RB _{totaly} , the monitored total amount of RB delivered to those users". Pls clarify				
CME response				Date: 08/09/2019
The sentence is removed now.				
Documentation provided by CME				
Revised PoA-DD ^[2]				
DOE assessment				Date: 18/09/2019
The validation team has reviewed the PoA-DD and accepted the same. Issue closed.				

CAR ID	8	Section no.		Date: 09/12/2019
Description of CAR				

The PoA-DD (page 8) indicates that Local stakeholder consultation will be carried out at CPA level for a group of CPAs in the same region. Further, it is mentioned that the stakeholder consultation will be repeated at CPA level as soon as a CPA is included with a boundary reaching outside the region. However, the PS-PoA paragraph 64 (a) requires the local stakeholder consultation process shall be completed before the start date of the CPA whereas the PoA proposes to conduct the process at CPA inclusion. Please clarify.

CME response	Date: 10/12/2019
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The PoA –DD has been corrected to be in line with the PS-PoA paragraph 64 (a). The PoA now specifies: “The local stakeholder consultation has to be conducted before the start date of each CPA.”

Documentation provided by CME

Revised PoA-DD

DOE assessment	Date: 11/12/2019
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The validation team has reviewed the section F-Local Stakeholder Consultation of PoA-DD. Now it correctly states that LSC for each CPA will be conducted before its start date. As this is in line with the para 64a PS-PoA v2.0, the validation team has closed the issue.

CAR ID	9	Section no.		Date: 09/12/2019
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Description of CAR

The sampling plan for the generic CPA III (applying AMS-II.G.), section I.7.2 (page 102), includes monitoring of the generated charcoal. But charcoal from generic CPA III is not be considered in accounting for the emission reductions. Please clarify

CME response	Date: 10/12/2019
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The sampling plan of generic CPA III section I.7.2 has been corrected. The reference to charcoal sampling was deleted.

Documentation provided by CME

Revised PoA-DD

DOE assessment	Date: 11/12/2019
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The validation team has reviewed the section I.7.2-Sampling plan for generic CPA 3 of PoA-DD. Now the reference to charcoal is removed which is in line with the correct scenario. The validation team has closed the issue.

CAR ID	10	Section no.		Date: 09/12/2019
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Description of CAR

The PoA-DD (Section K, eligibility criteria No. 3) indicates that the CPA DD will describe that CPAs are neither registered as CDM Project activities, included in other PoAs nor the project activities that have been deregistered to meet the requirements of project standard for PoA ver. 02 paragraph 124c. However, the CDM PoA (page 27) refers to the PoA-DD 10292 and which has the same geographical boundary (India) as this PoA (10516), both distributing the same ICS model (TLUD) from the same distributor (Sapient Infotech) and implemented by the same project participant (Atmosfair). The CME/DOE shall provide additional information on how to meet the requirements under Project Standard for PoA ver. 02 paragraph 124c. Please clarify.

CME response	Date: 10/12/2019
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The CME clarified that the following provisions will be made to assure the compliance with the requirements under Project Standard for PoA ver. 02 paragraph 124 c.

"We, the Nature Club of Rajasthan as the CME of the Project "Improved cook stoves and sustainable charcoal initiative (10516)" are responsible for checking the features of a potential CPA before its inclusion in the PoA and ensure that each CPA meets the defined eligibility criteria. To this end, we have prepared a CPA Inclusion Management System according to Project Standard for PoA ver. 02 paragraph 124. The CME will inter alia make provisions to assure:

124 (c) Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;

To meet this criterion, the CME will implement a record system, including the following items:

1. Electronic record keeping system on CPA level including the following information:

- Name and ID of the CPA
- Date of inclusion of the CPA
- Start of CPA crediting period
- Unique stove IDs, engraved on each stove, which are solely distributed under this CPA.
- Information on all institutions included in the implementation of the CPA (e.g. stove producer, stove distributor)

2. Sales agreements for each stove stating the unique stove ID, the contact information of stove user and the name of the PoA under which this unique ID has been distributed.

3. A statement of the CME for each CPA-DD confirming that the CPA is neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;

All information of point 1 and 2 will be recorded in one central electronic database.

We, the Nature Club of Rajasthan as CME take the decision on CPA inclusions under this PoA and we coordinate monitoring and data management of the PoA."

CME added according information in the PoA DD to state the compliance with Project Standard for PoA ver. 02 paragraph 124 c clearly. Kindly note that the above provisions also assure the unambiguous allocation of stoves to the project, thereby avoiding double counting.

The management system is also modified in the PoA-DD in tune with the planned practice.

Documentation provided by CME

Revised PoA-DD

DOE assessment

Date: 11/12/2019

The validation team has reviewed the procedure how a cookstove would be included in a CPA of this PoA10156. The validation team based on the interview with CME, Atmosfair and Sapient understood that when there is a demand for cook stoves from the market or CME wanted to extend the PoA, Nature Club of Rajasthan (the CME), on behalf of Atmosfair would order for the making the cook stoves to Sapient. Generally the CME would get finance support from Atmosfair. Sapient, the stove manufacturer, before making a cookstove would know in which PoA, the cookstove would be included. The stove ids are generated in such a way to easily identify in which PoA it falls under. There is no chance of other PoA stove being included in this PoA or viceversa. While distributing the stove, sale agreement (that contains the stove ids) would be signed between the CME and the beneficiary or stove user. The validation team has observed that CME is responsible for checking the features of potential cook stoves and ensure that each cookstove meets the eligibility criteria before inclusion. CME is using CPA inclusion management system to check if the CPA or stove to be included under the PoA meets the eligibility criteria. The validation team has reviewed latest CME letter^{/14/} dated 11th December 2019 regarding robust management system adopted by the CME/atmosfair in the CPA inclusion etc. The validation team has reviewed the management system and accepted the same.

The procedure for inclusion is similar for PoA10292 as well. Thus the validation team concludes the both PoAs are independent to each other and is mutually exclusive physically.

The validation team has observed the following.

Type	Threshold unit size of each cook stove for being additional as prescribed in Appendix of small scale additionality tool v12.0 ^{/14/}	Unit size of project cookstove
Type II	600 MWh _e per year or 1800 MWh _{th} per year and end users are households/ communities/ SMEs	7.34 kWh _{th} per project cookstove per year. End user is households
Type III	600 tCO _{2e} per year and end users are households/ communities/ SMEs	1.82 tCO _{2e} per project cookstove per year. End user is households
Type I	1500 kW _e or 4500 kW _{th} and end users are households/ communities/ SMEs	1.516 kW _{th} End user is households

Since each of the units contained in the CPA satisfies the condition to qualify as a 'microscale CDM unit', then validation team has accepted that CME is not required to demonstrate compliance of the CPA with the microscale or small-scale thresholds at the aggregate level of the CPA and the requirements related to debundling stated in paragraph 6 of Microscale additionality tool v9.0^{/14/} do not apply.

The validation team has also observed the following.

Type	Small scale thresholds as defined PS-PoAv2.0	1% of Small scale thresholds	Unit size of project cookstove
Type II	60 GWh per year or 180 GWh _{th} per year	1800 MW _{th} per year	7.34 kWh _{th} per year.
Type III	60 ktCO _{2e} per year	600 tCO _{2e}	1.82 tCO _{2e} per year.
Type I	15 MW or 45 MW _{th}	450 kW _{th}	1.516 kW _{th}

Since each of the independent cook stoves included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology/types applied, CPA of PoA is exempted from performing de-bundling check i.e., considering as not being a de-bundled component of a large scale activity. This is in line with para 17 of De-bundling tool^{/14/} v4.0.

From the above findings, the validation team has thus concluded that the PoA is independent from PoA10292 and is not part of any other PoA/PA.

CAR ID	11	Section no.		Date: 09/12/2019
Description of CAR				
Generic CPA I will apply a combination of AMS-II. G./AMS-III. BG./AMS-I.E. The DOE has reported that, for AMS-I.E., users will be provided with 100% renewable biomass (such as waste wood from plantations) as fuel. The CME/DOE shall provide information to demonstrate that the biomass is "renewable biomass". Please refer to the CDM Glossary of terms v10.0.				
CME response				Date: 10/12/2019

CME provided information that sources of “renewable biomass” will be defined for each CPA before CPA inclusion. It will be demonstrated that the used biomass is “renewable biomass” according to the CDM Glossary of terms v10.0. please refer PoA-DD Part I, Section A.1 and PoA-DD Part II. Section H.3. “The project will purchase and organize the distribution of the renewable biomass and ensures that only sources are used that are in line with the requirements according to CDM glossary of terms v10.0. The specific sources will be clarified on CPA level when the specific sources are known.”

Documentation provided by CME

Revised PoA-DD

DOE assessment

Date: 11/12/2019

The validation team has reviewed the section A.1 and section H.3 for CPA1 of PoA-DD. Since the source of renewable biomass is not known to CME as on today, CME mentioned that renewable biomass would fit in one of the five conditions as specified in the Glossary of CDM terms v10.0. CME has implemented two specific case CPAs so far which are based on generic CPA no 2 where renewable biomass was not considered. The validation team has accepted the argument of CME and closed the issue.

CAR ID	12	Section no.		Date: 09/12/2019
Description of CAR				
The DOE shall provide information on how it validated the compliance of the monitoring with the applied methodologies: i.The $NCV_{charcoal}$ has been listed as an ex-ante value (29.5 GJ/ton) based on a survey conducted for CDM PoA 10292 (which has not yet received any issuance of emission reductions) whereas the applied methodology (AMS-III.BG ver. 3, Table 8) requires monitoring of $NCV_{charcoal}$ in case the charcoal is generated from micro gasifier; and ii.The produced quantity of charcoal product ($Q_{CCP,i,y}$) will be crosschecked with the monitored fuelwood consumption and the observed wood to charcoal conversion rate. However, the PoA-DD (pages 28 & 66) defines CF as an ex-ante parameter of 6 kg wood/kg charcoal as per the applied methodology. Please clarify				
CME response				Date: 10/12/2019
The CME made corrections in the PoA-DD to be in line with monitoring requirements of the applied methodologies: i)The parameter $NCV_{charcoal}$ is now listed as monitoring parameter. The applied value (29.5 GJ/ton) is now only used for ex-ante calculation of emission reductions. ii)The CF was corrected to 6 kg wood/kg charcoal as per the applied methodology and ex-ante definition in the PoA -DD.				
Documentation provided by CME				
Revised PoA-DD				
DOE assessment				Date: 11/12/2019
The validation team has reviewed the revised PoA-DD (p28,p36,p38 & p67,p74,p75). Now $NCV_{charcoal}$ is included as ex-post monitoring parameter. The validation team has checked the monitoring procedure and accepted as it is in line with the applied methodology (AMS.III.BG v3.0). CME has corrected the PoA-DD to state that “produced quantity of charcoal product ($Q_{CCP,i,y}$) will be crosschecked with the monitored fuelwood consumption and the wood to charcoal conversion rate which is 6”. The validation team has closed the issue.				

CAR ID	13	Section no.		Date: 22/02/2020
Description of CAR				

1) Refer to paragraph: AMS-II.G. ver. 10 paragraph 46, and Microscale additionality tool, version 9.0 paragraphs 12(a) and 12 (b)(i) along with footnote 15

The CME has mentioned the conditions to ensure that the included CPAs meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required because the CPAs will consist solely of units that qualify as “microscale CDM units” as defined in the “Microscale additionality tool”, version 9.0.

However, the Tool (paragraph 12(a) and 12(b)(i) along with footnote 15) requires that energy efficiency units shall either be in an LDC/SIDS or SUZ of the host country or the penetration (i.e. the market saturation) of the proposed technology shall be equal to or less than 5 per cent of the technologies/measures (providing similar services) in the region in order for the distributed units to qualify as “microscale CDM units”.

The CME is requested to demonstrate how it has validated “microscale CDM units” by providing the market saturation of the proposed technology in order to meet the small-scale or microscale thresholds considering that the PoA is hosted in India.

(issue raised in view of Request for Review dated 20th February 2020)

CME response

Date: 10/03/2020

CME's answer to Request 1-4:

The CME wishes to thank the stakeholders for their input. CME responds to the request for review issues by revising the PoA-DD.

The CME and/or PP will demonstrate in the specific CPA DD that the introduced energy efficiency units qualify as “microscale CDM units” by providing prove, that the penetration (i.e. the market saturation) of the proposed technology is equal to or less than 5 per cent of the technologies/measures (providing similar services) in the region.

The CME will determine the penetration rate for each CPA before every submission of a CDM-CPA-DD for inclusion by using one of the following options:

- a) Official statistics or reports, relevant industry association reports or peer-reviewed literature;
- b) Results of a sampling survey conducted by project participants or a third party as per the latest version of “Standard: Sampling and surveys for CDM project activities and programme of activities”; covering technologies/measures providing similar services as the project technology/measure.

The CME will use the most recent data available at the time of submission of the CDM-CPA-DD for inclusion, and the data vintage used shall not include data older than three years prior to:

- (a) the start date of the CDM project activity; or
- (b) the start of validation/inclusion, whichever is earlier.

To this aim, the CME added the requirement to comply with the CDM Tool 19, paragraph 12(a) and 12(b)(i) along with footnote 15) and AMS-II.G vers. 10 para. 46 as an Eligibility criterion for CPA inclusions in the eligibility section of each of the 3 generic CPAs in the PoA DD.

The CME will also demonstrate that the energy efficiency units qualify as “microscale units” by showing that the introduced units remain below the microscale thresholds for energy savings defined in CDM Tool 19 vers. 09.0.

Documentation provided by CME

Revised PoA-DD

DOE assessment

Date: 12/03/2020

The validation team is responding to the request for review for the issues raised by revising the validation report. The validation team has observed that the technology in question is biomass based micro-gasifier cook stoves (with portable or in-situ cook stoves with rated efficiency of more than 20% with charcoal as by-product) and services in question is distribution of such cook stoves for cooking purpose to the intended beneficiaries. The validation team has accepted the argument of CME that CME would demonstrate the technology penetration in the host country is equal to or less than 5% at the CPA level at the time of inclusion of each CPA. The validation team has understood that penetration refers to proportion of stock of functional equipment at the user end. The validation team has accepted the type of documents such as official reports, literature, industry reports or survey results (Type of sampling: stratified random sampling; Parameter in interest being proportion (yes or no), confidence/precision being 90/10) to be used for demonstrating the penetration rate. The validation team has accepted the timing of data used that CME would use the most recent data available at the time of submission of the CPA inclusion, and the data vintage used would not include data older than three years prior to (a) the start date of the PoA or (b) the start of validation/inclusion of CPAs, whichever is earlier. The validation team has accepted the revised PoA-DD as it now in line with para 12 of Tool- "Demonstration of additionality of microscale project activities" v9.0. Hence the validation team has accepted that energy efficiency unit can be treated as microscale units upon demonstration of technology penetration rate by the CME as above.

Table 3. FARs from this validation

FAR ID	xx	Section no.	-	Date:	06/09/2019
Description of FAR					
No FAR is raised.					
CME response				Date:	08/09/2019
NA					
Documentation provided by CME					
NA					
DOE assessment				Date:	18/09/2019
NA					

Appendix 5: Applicability conditions of methodologies used for generic CPAs

Generic CPA no 1:

Applicable conditions –AMS.II.G	Validation opinion of how the CPA would comply with the methodology.
1.This methodology comprises efficiency improvements in thermal applications of nonrenewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy efficiency improvements in existing biomass fired cookstoves or ovens or dryers	The purpose of the CPA no 1 is the distribution of efficient cook stoves (micro gasifier stoves) displaces traditional wood stoves which constitute the baseline scenario. Condition 1 is satisfied.
2.In the case of cookstoves, the methodology is applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent. The Water Boiling Test (WBT) method shall be used to test the efficiency of the cookstove to meet this eligibility requirement, following the requirements indicated in "Data / Parameter table 11" which details the options for testing and certification as well as supporting documentation (e.g. certificate issued by third party or test results) that needs to be presented to the validating DOE	The top-lit updraft gasifier is a micro-kiln used to produce heat for cooking with charcoal as by product. It is introduction of single pot portable one weighing 8 kg only. The validation team has seen the working of the project cookstove during onsite visit. The stove is commonly constructed with two concentric cylindrical containers (referred to as canisters). The inner cylinder is the fuel pot. The fuel pot has holes in the base. These holes are the primary air inlet. The fuel pot also has holes on the neck, serving as a secondary air inlet. The outer cylinder has holes near the bottom on the

	sides. During combustion, air enters these holes by natural air draft as designed. The end user fills the fuelwood pot up to the neck, just below the secondary air inlet holes. The user ignites the top layer of fuel for the pyrolysis to start. Air then flows in through the primary and secondary air inlets. The primary inlet helps the draft of pyrolysed wood gas flow up. The secondary air inlet blows hot air by the time it travels around the fuel pot. The secondary inlet above the fuel layer helps burn the wood gas. The stove pyrolyzes fuelwood and uses a reburner to eliminate volatile byproducts of pyrolyzation. The validation team has reviewed the Ministry of Micro, Small, Medium Enterprises test report^{10/} and observed that efficiency of the project cookstoves is 27.7%. Hence accepted. Condition 2 is satisfied
3.The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input	The capacity of each project cookstove is less than 1800 MWh _{th} per year. As the generic CPA consists solely of units that qualify as “microscale CDM units” as defined in Microscale additionality, as per para 46 of AMS.II.G v10.0, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required.
4.Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics	The validation team reviewed the state of forest report ^{11/} dated 2001 and found that non renewable biomass has been used since 1951. Hence accepted. Condition 4 is satisfied.
5.For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type I methodology	Generally conventional non renewable fuelwood would be used in the project cook stoves distributed. However, if it is replaced by renewable biomass, additional ER will be calculated based on AMS-I.E version 09 (Type I methodology).
6.If the project device requires a specific fuel for this device (e.g. briquettes, pellets, woodchips), the consumption of the fuel should be monitored during the crediting period.	The fuel consumption is monitored in the crediting period.
Applicable conditions –AMS.III.BG	Validation opinion of how the CPA would comply with the methodology.
1.This methodology is applicable to project activities that displace the use of nonrenewable biomass in the production of charcoal supplied to identified consumers for thermal applications included in the project boundary	Charcoal is produced from the project cookstove displaces use of non-renewable biomass. The charcoal is supplied to identified consumers (SMEs, charcoal traders. Condition 1 is satisfied.
2.This methodology is also applicable to charcoal generated as a by-product in microgasifier stoves using woody biomass for households cooking when used in conjunction with “AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass”. Auxiliary power consumption in a blower or fan for forced convection is not covered by the methodology	The purpose of the CPA is the distribution of improved cook stoves displaces traditional wood stoves which constitute the baseline scenario. Charcoal is the by product from the project cookstoves. Only natural air will be used for primary and secondary air in the cookstove. Condition 2 is satisfied.
3.End users of charcoal shall be: (i) households; or (ii) small and medium enterprises (SMEs); or (iii) a group of households served by a charcoal market (e.g. charcoal consuming urban areas). End users do not include large scale industries	The charcoal is supplied to identified consumers (SMEs, charcoal traders). The validation team has reviewed one agreement ^{12/} between households and charcoal vendors where it is written that charcoal would not be sold to large scale industry. Condition 3 is satisfied

4.Measures such as contractual agreements shall be implemented to avoid potential double counting because of potential claims of emission reductions by the end users. These measures shall be described in the Project Design Document (PDD)	Agreements^{12/} will be signed between CME and households/SME. The rights of carbon credit lies with the CME only. Condition 4 is satisfied
5.Project activity, except for the case indicated in paragraph 3 above, shall introduce efficient charcoal production technologies using biomass feedstock such as biomass residues to displace the production of charcoal in unimproved traditional kilns by the informal sector thereby leading to emission reductions. Charcoal production facility may include briquetting facility for the agglomeration of smaller biomass particles. Methane produced during charcoaling process is either: (a) captured and destructed or gainfully used for heat or electricity; or (b) not captured and not destructed. Examples of these technologies include but are not limited to: (a) Retort sedentary kilns which capture the pyrolysis gas; captured gas may be gainfully used for example as a fuel for pre-heating the facility or for wood drying or for production of heat and/or power; (b) Improved sedentary kilns without the capture of pyrolysis gas; (c) Casamance kilns	Not applicable as charcoal is produced in the project cook stoves (microgasifier) as a by product. Condition 5 is not applicable.
6.Project kilns not equipped with capture and destruction of the pyrolysis gases are not eligible to claim emission reductions on account of avoidance of methane emissions from the project activity under this methodology. It is assumed that methane emissions in the project equals to methane emissions in the baseline charcoal generation process.	The validation team has seen the working of the project cookstove during onsite visit. The stove is commonly constructed with two concentric cylindrical containers (referred to as canisters). The inner cylinder is the fuel pot. The fuel pot has holes in the base. These holes are the primary air inlet. The fuel pot also has holes on the neck, serving as a secondary air inlet. The outer cylinder has holes near the bottom on the sides. During combustion, air enters these holes by natural air draft as designed. The end user fills the fuelwood pot up to the neck, just below the secondary air inlet holes. The user ignites the top layer of fuel for the pyrolysis to start. Air then flows in through the primary and secondary air inlets. The primary inlet helps the draft of pyrolysed wood gas flow up. The secondary air inlet blows hot air by the time it travels around the fuel pot. The secondary inlet above the fuel layer helps burn the wood gas. The stove pyrolyzes fuelwood and uses a reburner to eliminate volatile byproducts of pyrolyzation. Since pyrolysis gases are captured in the cook stoves. Condition 6 is satisfied.
7. The project activity shall install and operate new (Greenfield) charcoal production facilities characterized by a new investment; replacement and retrofit of existing facilities is not eligible under this methodology.	The project activity would install and operate new improved cook stoves in the households. Charcoal is the by-product. The validation team has checked one cookstove whose cost of production is Indian Rupee 2650. As demonstrated in the baseline

Provisions of "General guidelines for SSC CDM methodologies" shall be applied to demonstrate that the most plausible baseline scenario is the production of charcoal in unimproved traditional kilns by the informal sector.	section, baseline scenario is the production of charcoal in unimproved traditional kilns by the informal sector. Condition 7 is satisfied.
8. Charcoal manufacturing equipment transferred from existing or decommissioned charcoal production facilities are not eligible.	Newly manufactured project cook stoves would be sold to the endusers. Hence condition 8 is not applicable.
9. The biomass utilized by the project activity shall not be chemically processed (e.g. esterification to produce biodiesel, degumming and/or neutralization by chemical reagents) prior to the pyrolysis, but it may be processed mechanically (e.g. pressing, filtering, agglomeration) or thermally (e.g. drying, roasting).	Biomass utilized by the project activity is not chemically processed in the project cookstoves. Generally conventional non renewable fuelwood would be used in the project cook stoves distributed. However, if it is replaced by renewable biomass, additional ER will be calculated based on AMS-I.E version 09 (Type I methodology).
10. Biomass used by the project facilities is not stored for more than one year. No storage of the biomass is done in anaerobic conditions.	Biomass is not stored for more than one year. Hence accepted.
11. The embedded energy in charcoal produced as by-product in micro-gasifier stoves as indicated in paragraph 3 above shall be neglected when performing water boiling test as per AMS-II.G (see paragraph 17 of AMS-II.G, version 6) to ensure that efficiency estimates are conservative.	The embedded energy in charcoal production would be neglected while calculating the thermal efficiency from WBT test.
Applicable conditions –AMS.I.E	Validation opinion of how the CPA would comply with the methodology.
1.This methodology comprises of activities to displace the use of non-renewable biomass by introducing renewable energy technologies. Examples of these technologies include, but are not limited to biogas stoves, bio-ethanol stoves, solar cookers, passive solar homes	The purpose of the CPA is the distribution of efficient cook stoves (micro gasifier stoves) displaces traditional wood stoves which constitute the baseline scenario. Condition 1 is satisfied.
2.Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics	The validation team reviewed the state of forest report ^{/11/} dated 2001 and found that non renewable biomass has been used since 1951. Hence accepted. Condition 2 is satisfied.
3.The methodology is applicable for technologies displacing use of non-renewable biomass by renewable energy	The purpose of the CPA no 1 is the distribution of efficient cook stoves (micro gasifier stoves) which uses renewable biomass. It displaces traditional wood stoves which constitute the baseline scenario. This uses non renewable biomass. Condition 3 is satisfied.
4.Project participants or coordinating and managing entities shall describe in the PDD/PoA-DD how the double counting of emission reductions has been addressed (e.g. between end users, distributors and producers of stoves).	CME would provide contract ^{/12/} between CME and households(endusers). One of the clause is about the right to claim carbon credit. As per the agreement, the rights of claim of carbon credit lies with the CME only. The households cede the rights to the CME. The validation team has reviewed one agreement ^{/12/} where stove unique id, date of sale, Name and address of the enduser with GPS are recorded. Condition 4 is satisfied.
5.For project activities introducing bio-ethanol cookstoves, project participants or coordinating and managing entities shall demonstrate that the bioethanol cookstoves are designed, constructed and operated to the requirements (e.g. with regard to safety) of a relevant national or local standard or comparable literature. Latest guidelines issued by a relevant national authority or an international organisation may also be used.	PoA did not constitute bio ethanol cookstoves. Condition 5 is not applicable.

Generic CPA no 2:

Applicable conditions –AMS.II.G	Validation opinion of how the CPA would comply with the methodology.
1.This methodology comprises efficiency improvements in thermal applications of nonrenewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy efficiency improvements in existing biomass fired cookstoves or ovens or dryers	The purpose of the CPA no 2 is the distribution of improved cook stoves displaces traditional wood stoves which constitute the baseline scenario. Condition 1 is satisfied.
2.In the case of cookstoves, the methodology is applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent. The Water Boiling Test (WBT) method shall be used to test the efficiency of the cookstove to meet this eligibility requirement, following the requirements indicated in “Data / Parameter table 11” which details the options for testing and certification as well as supporting documentation (e.g. certificate issued by third party or test results) that needs to be presented to the validating DOE	The top-lit updraft gasifier is a micro-kiln used to produce heat for cooking with charcoal as by product. It is introduction of single pot portable one weighing 8 kg only. The validation team has seen the working of the project cookstove during onsite visit. The stove is commonly constructed with two concentric cylindrical containers (referred to as canisters). The inner cylinder is the fuel pot. The fuel pot has holes in the base. These holes are the primary air inlet. The fuel pot also has holes on the neck, serving as a secondary air inlet. The outer cylinder has holes near the bottom on the sides. During combustion, air enters these holes by natural air draft as designed. The end user fills the fuelwood pot up to the neck, just below the secondary air inlet holes. The user ignites the top layer of fuel for the pyrolysis to start. Air then flows in through the primary and secondary air inlets. The primary inlet helps the draft of pyrolysed wood gas flow up. The secondary air inlet blows hot air by the time it travels around the fuel pot. The secondary inlet above the fuel layer helps burn the wood gas. The stove pyrolyzes fuelwood and uses a reburner to eliminate volatile byproducts of pyrolyzation. The validation team has reviewed the Ministry of Micro, Small, Medium Enterprises test report^{10/} and observed that efficiency of the project cookstoves is 27.7%. Hence accepted. Condition 2 is satisfied
3.The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input	The capacity of each project cookstove is less than 1800 MWh_{th} per year. As the generic CPA consists solely of units that qualify as “microscale CDM units” as defined in Microscale additionality, as per para 46 of AMS.II.G v10.0, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required.
4.Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics	The validation team reviewed the state of forest report^{11/} dated 2001 and found that non renewable biomass has been used since 1951. Hence accepted. Condition 4 is satisfied.
5.For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type I methodology	Generally conventional non renewable fuelwood would be used in the project cook stoves distributed. Hence the condition is not applicable.

6.If the project device requires a specific fuel for this device (e.g. briquettes, pellets, woodchips), the consumption of the fuel should be monitored during the crediting period.	The fuel consumption is monitored in the crediting period.
Applicable conditions –AMS.III.BG	Validation opinion of how the CPA would comply with the methodology.
1.This methodology is applicable to project activities that displace the use of nonrenewable biomass in the production of charcoal supplied to identified consumers for thermal applications included in the project boundary	Charcoal is produced from the project cookstove displaces use of non-renewable biomass. The charcoal is supplied to identified consumers (SMEs, charcoal traders. Condition 1 is satisfied.
2.This methodology is also applicable to charcoal generated as a by-product in microgasifier stoves using woody biomass for households cooking when used in conjunction with “AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass”. Auxiliary power consumption in a blower or fan for forced convection is not covered by the methodology	The purpose of the CPA no 2 is the distribution of improved cook stoves displaces traditional wood stoves which constitute the baseline scenario. Charcoal is the by product from the project cookstoves. Only natural air will be used for primary and secondary air in the project cookstove. Condition 2 is satisfied.
3.End users of charcoal shall be: (i) households; or (ii) small and medium enterprises (SMEs); or (iii) a group of households served by a charcoal market (e.g. charcoal consuming urban areas). End users do not include large scale industries	The charcoal is supplied to identified consumers (SMEs, charcoal traders). The validation team has reviewed one agreement ^{12/} between households and charcoal vendors where it is written that charcoal would not be sold to large scale industry. Condition 3 is satisfied
4.Measures such as contractual agreements shall be implemented to avoid potential double counting because of potential claims of emission reductions by the end users. These measures shall be described in the Project Design Document (PDD)	Agreements ^{12/} will be signed between CME and households/SME. The rights of carbon credit lies with the CME only. Condition 4 is satisfied
5.Project activity, except for the case indicated in paragraph 3 above, shall introduce efficient charcoal production technologies using biomass feedstock such as biomass residues to displace the production of charcoal in unimproved traditional kilns by the informal sector thereby leading to emission reductions. Charcoal production facility may include briquetting facility for the agglomeration of smaller biomass particles. Methane produced during charcoaling process is either: (a) captured and destructed or gainfully used for heat or electricity; or (b) not captured and not destructed. Examples of these technologies include but are not limited to: (a) Retort sedentary kilns which capture the pyrolysis gas; captured gas may be gainfully used for example as a fuel for pre-heating the facility or for wood drying or for production of heat and/or power; (b) Improved sedentary kilns without the capture of pyrolysis gas; (c) Casamance kilns	Not applicable as charcoal is produced in the project cook stoves as a by product. Condition 5 is not applicable.
6.Project kilns not equipped with capture and destruction of the pyrolysis gases are not eligible to claim emission reductions on account of avoidance of methane emissions from the project activity under this methodology. It is assumed that methane	The validation team has seen the working of the project cookstove during onsite visit. The stove is commonly constructed with two concentric cylindrical containers (referred to as canisters). The inner cylinder is the fuel pot. The fuel pot has

emissions in the project equals to methane emissions in the baseline charcoal generation process.	holes in the base. These holes are the primary air inlet. The fuel pot also has holes on the neck, serving as a secondary air inlet. The outer cylinder has holes near the bottom on the sides. During combustion, air enters these holes by natural air draft as designed. The end user fills the fuelwood pot up to the neck, just below the secondary air inlet holes. The user ignites the top layer of fuel for the pyrolysis to start. Air then flows in through the primary and secondary air inlets. The primary inlet helps the draft of pyrolysed wood gas flow up. The secondary air inlet blows hot air by the time it travels around the fuel pot. The secondary inlet above the fuel layer helps burn the wood gas. The stove pyrolyzes fuelwood and uses a reburner to eliminate volatile byproducts of pyrolyzation. Since pyrolysis gases are captured in the cook stoves. Condition 6 is satisfied.
7. The project activity shall install and operate new (Greenfield) charcoal production facilities characterized by a new investment; replacement and retrofit of existing facilities is not eligible under this methodology. Provisions of "General guidelines for SSC CDM methodologies" shall be applied to demonstrate that the most plausible baseline scenario is the production of charcoal in unimproved traditional kilns by the informal sector.	The project activity would install and operate new improved cook stoves in the households. Charcoal is the by-product. The validation team has checked one cookstove whose cost of production is Indian Rupee 2650. As demonstrated in the baseline section, baseline scenario is the production of charcoal in unimproved traditional kilns by the informal sector. Condition 7 is satisfied.
8. Charcoal manufacturing equipment transferred from existing or decommissioned charcoal production facilities are not eligible.	Newly manufactured project cook stoves would be sold to the endusers. Hence condition 8 is not applicable.
9. The biomass utilized by the project activity shall not be chemically processed (e.g. esterification to produce biodiesel, degumming and/or neutralization by chemical reagents) prior to the pyrolysis, but it may be processed mechanically (e.g. pressing, filtering, agglomeration) or thermally (e.g. drying, roasting).	Biomass utilized by the project activity is not chemically processed in the project cookstoves. Generally conventional non renewable fuelwood would be used in the project cook stoves distributed.
10. Biomass used by the project facilities is not stored for more than one year. No storage of the biomass is done in anaerobic conditions.	Biomass is not stored for more than one year. Hence accepted.
11. The embedded energy in charcoal produced as by-product in micro-gasifier stoves as indicated in paragraph 3 above shall be neglected when performing water boiling test as per AMS-II.G (see paragraph 17 of AMS-II.G, version 6) to ensure that efficiency estimates are conservative.	The embedded energy in charcoal production would be neglected while calculating the thermal efficiency from WBT test.

Generic CPA no 3:

Applicable conditions –AMS.II.G	Validation opinion of how the CPA would comply with the methodology.
1.This methodology comprises efficiency improvements in thermal applications of nonrenewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy	The purpose of the CPA no 3 is the distribution of improved cook stoves displaces traditional wood stoves which constitute the baseline scenario. Condition 1 is satisfied.

efficiency improvements in existing biomass fired cookstoves or ovens or dryers	
2. In the case of cookstoves, the methodology is applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent. The Water Boiling Test (WBT) method shall be used to test the efficiency of the cookstove to meet this eligibility requirement, following the requirements indicated in "Data / Parameter table 11" which details the options for testing and certification as well as supporting documentation (e.g. certificate issued by third party or test results) that needs to be presented to the validating DOE	The project cookstove distributed would be single pot or multi pot with efficiency more than 20%. Condition 2 is satisfied
3. The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input	The capacity of each project cookstove is less than 1800 MWh _{th} per year. As the generic CPA consists solely of units that qualify as "microscale CDM units" as defined in Microscale additionality, as per para 46 of AMS.II.G v10.0, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required.
4. Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics	The validation team reviewed the state of forest report ^{/11/} dated 2001 and found that non renewable biomass has been used since 1951. Hence accepted. Condition 4 is satisfied.
5. For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type I methodology	Generally conventional non renewable fuelwood would be used in the project cook stoves distributed. Hence the condition 5 is not applicable.
6. If the project device requires a specific fuel for this device (e.g. briquettes, pellets, woodchips), the consumption of the fuel should be monitored during the crediting period.	The fuel consumption is monitored in the crediting period.

Appendix 6: Project Standard requirements

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
6. General requirements 6.1. Use of and compliance with applicable standards 20. While designing as well as implementing and monitoring a CDM PoA, the coordinating/managing entity shall consider and use any applicable standards, methodologies, standardized baselines, methodological tools, guidelines and other regulatory documents adopted by the CMP or the Board in accordance with this standard.	CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass ^{/3/} --- Version 10.0 adopted at EB100. AMS-III.BG. Emission reduction through sustainable charcoal production and consumption ^{/3/} --- Version 3.0 adopted at EB79 AMS-I.E. Switch from non-renewable biomass for thermal applications by the user ^{/3/} --- Version 9.0 adopted at EB100.
21. The coordinating/managing entity shall ensure that the proposed CDM PoA complies with all requirements in the CDM M&Ps applicable to the PoA, as referred to in paragraph 1 above, all applicable requirements in this standard and all other applicable CDM rules and requirements adopted by the CMP or the Board.	CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100. AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	AMS-I.E.Switch from non-renewable biomass for thermal applications by the user --- Version 9.0 adopted at EB100.
6.2. Use of applicable forms 22. The coordinating/managing entity wishing to have a proposed CDM PoA or CPA validated by a designated operational entity (DOE) shall prepare a PoA-DD or a CPA-DD, using the valid version of the applicable PoA-DD or CPA-DD form.	CME used valid version of POA-DD form ^{13/} (version 9.0) which is the latest one. https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20190607162832043/PDD_Form09v9.pdf
23. When completing the PoA-DD or CPA-DD forms, the coordinating/managing entity shall provide all necessary information and documentation to demonstrate compliance of the proposed CDM PoA or CPA with all applicable requirements in this standard and other CDM rules and requirements.	The validation team checked the PoA-DD and found CME provided all the necessary information to demonstrate compliance with the requirements.
24. The coordinating/managing entity wishing to have the GHG emission reductions or net anthropogenic GHG removals achieved by the implemented registered CDM PoA verified by a DOE shall prepare a monitoring report using the valid version of the monitoring report form.	The scope of the DOE here involves validation of POA. Hence this is not required.
25. When completing the monitoring report form, the coordinating/managing entity shall provide all necessary information and documentation to demonstrate compliance of the implemented registered CDM PoA and monitored GHG emission reductions or net anthropogenic GHG removals with all applicable requirements in this standard and other applicable CDM rules and requirements.	The scope of the DOE here involves validation of POA. Hence this is not required.
26. When completing the PoA-DD, CPA-DD or monitoring report form, the coordinating/managing entity shall follow the instructions therein.	The validation team has reviewed the POA-DD ^{2/} and CME has followed all the instructions mentioned therein the PoA DD template.
6.3. Use of applicable global warming potentials 27. The coordinating/managing entity shall use the global warming potentials (GWPs) adopted by the CMP at its seventh session, in accordance with decision 4/CMP.7, to calculate the GHG emission reductions or net anthropogenic GHG removals achieved by the CDM PoA in the second commitment period of the Kyoto Protocol. This requirement shall apply from 1 January 2013, notwithstanding any GWPs stated to be applicable in the relevant standards, methodologies, standardized baselines, methodological tools, guidelines, procedures and other rules being used in relation to that PoA.	CME used only CO ₂ ,CH ₄ whose GWP is 1 and 25 respectively. This is true as per decision 4/CMP.7.
28. The coordinating/managing entity shall apply the GWPs valid for the second commitment period for the purposes of demonstrating additionality and the ex ante calculation of GHG emission reductions or net anthropogenic GHG removals, if the PoA-DD to be published for global stakeholder consultation or the request for registration of the proposed CDM PoA is submitted on or after 1 January 2013. A request for registration submitted before 1 January 2013 that has applied the GWPs valid for the first commitment period in relation to additionality	GWP of CO ₂ /CH ₄ is used for the second commitment period for demonstrating additionality and emission reductions. PoA-DD is published for GSCP in 22 nd June 2019

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
demonstration is not required to reassess additionality or redo the ex ante calculation of GHG emission reductions or net anthropogenic GHG removals applying the GWPs valid for the second commitment period.	
29. The PoA-DDs for CDM PoAs registered before 1 January 2013 are not required to be amended, republished for global stakeholder consultation, or revalidated using the GWPs as applied by decision 4/CMP.7.	POA-DD is published in June 2019. Hence the condition is not applicable.
7. Design of programme of activities 7.1. Identification of programme type 31. The coordinating/managing entity shall determine the type of CDM PoA it intends to design and implement from the following: (a) PoA that will include only large-scale and/or small-scale non-A/R CPAs; (b) PoA that will include only large-scale and/or small-scale A/R CPAs (hereinafter referred to as A/R PoA).	CME used small scale non-A/R CPAs. A/R CPAs are not used in this PoA.
7.2. Description of programme of activities 32. The coordinating/managing entity shall describe the proposed CDM PoA in the PoA-DD to provide an understanding of the nature and the implementation of the PoA.	The validation team checked section A.3 of PoA-DD ^[2] where clear description of the CPA is mentioned.
33. When describing the proposed CDM PoA, the coordinating/managing entity shall provide, inter alia, the following information: (a) The title for the PoA; (b) The sectoral scopes linked to the methodologies applied and relevant to the PoA; (c) The purpose and a general description of the PoA, including: (i) The policy/measure or stated goal that the PoA seeks to achieve; (ii) A framework for the implementation of the PoA and inclusion of CPAs in the PoA; (iii) A confirmation that the PoA is a voluntary action by the coordinating/managing entity; (iv) How the PoA contributes to the sustainable development of the host Party; (d) The physical/geographical boundary of the PoA in terms of geographical area (e.g. municipality, region within a country, country or several countries) within which all CPAs to be included in the PoA will be implemented; (e) The technologies/measures to be employed and/or implemented by the CPAs under the PoA; (f) A description of how the technologies/measures and know-how for their use are transferred to the host Party, where applicable.	The validation team checked cover page, sections A.1, A.2 and A.3 of POA-DD where required information including 'description of how the technologies/measures and know-how for their use are transferred to the host Party' is mentioned.
34. The coordinating/managing entity shall identify:	As per POA-DD, Nature Club of Rajasthan is the

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
(a) The Parties involved in the proposed CDM PoA, including the host Party(ies); (b) The coordinating/managing entity and the project participants of the proposed CDM PoA.	CME. Host Parties involved: India Atmosfair is the PP. Other party involved: Germany. Hence accepted
35. The coordinating/managing entity shall provide information on sources of public funding for the proposed CDM PoA. If public funding from Parties included in Annex I to the United Nations Framework Convention on Climate Change (hereinafter referred to as the Convention) is involved, the coordinating/managing entity shall provide an affirmation obtained from the Parties included in Annex I that such funding does not result in a diversion of official development assistance, and is separate from and is not counted towards the financial obligations, of those Parties.	CME confirmed in the POA-DD that the PoA has not received public funding from Annex I parties that could result in a diversion of official development assistance. CME/PP is funding for the implementation of the PoA. Hence no public funding would be used.
7.3. Management system 36. The coordinating/managing entity shall establish and implement, and provide a description of, the operational and management system for the implementation of the proposed CDM PoA, including the following: (a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies; (b) Records of arrangements for training and capacity development for personnel; (c) A procedure for technical review of inclusion of CPAs; (d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or included as a CPA in another registered CDM PoA); (e) Records and documentation control process for each CPA under the PoA; (f) Measures for continuous improvements of the PoA management system; (g) Any other relevant elements.	Role of Nature Club of Rajasthan (CME), atmosfair (specified as PP) and Sapient Infotech (stove maker/distributor) is mentioned in the POA-DD.
37. The coordinating/managing entity shall have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria for inclusion of CPAs in the proposed CDM PoA before its inclusion.	CME has competency to coordinate the CPA. CME is getting the necessary CDM support from Atmosfair who is known for CDM competency.
7.4. Demonstration of additionality of programme of activities 38. The coordinating/managing entity shall demonstrate additionality of the proposed CDM PoA by establishing that in the absence of the PoA, none of the CPAs that will be implemented under the PoA	In the absence of the PoA, no CPA that is planned to be included would occur as CME is responsible for the funding. Hence accepted.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
would occur	
39. The coordinating/managing entity shall include conditions that would systematically demonstrate additionality of CPAs under the proposed CDM PoA in the eligibility criteria for inclusion of CPAs in the PoA in accordance with paragraph 124(g) below.	CME has defined conditions for demonstrating additionality of CPAs under eligibility criteria for inclusion of the CPAs. Refer Appendix 6 and 7 of this report for details.
7.5. Start date and duration 40. The coordinating/managing entity may notify the designated national authority (DNA) of the host Party(ies) of the proposed CDM PoA, if such DNA exists, and the UNFCCC secretariat (hereinafter referred to as the secretariat) of the intention to seek the CDM status for the PoA in accordance with the "CDM project cycle procedure for programmes of activities" for the purpose of determining the start date of the PoA.	The validation team notified to the CDM secretariat about the intention to seek CDM status of the POA on 7 th June 2018. The review of CDM website ^{/5/} confirms the same. https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html The validation team notified to the host country DNA CDM secretariat on the same day. The validation team has checked the email confirmation ^{/5/} .
41. The coordinating/managing entity shall determine the start date of the proposed CDM PoA and provide a description of how the start date has been determined in accordance with the definition of the start date in the "Glossary: CDM terms"	As per PoA-DD, CME has notified about intention to seek CDM status. As per Glossary of CDM terms ^{/4/} v10.0, this is taken as start date (7 th June 2018).
42. The coordinating/managing entity shall state the start date of the proposed CDM PoA in the format dd/mm/yyyy, and shall not attach any qualifications to the start date, such as "expected".	Start date of the PoA is 7 th June 2018. The validation team reviewed the POA-DD and accepted the same.
43. The coordinating/managing entity shall specify the duration of the proposed CDM PoA, which shall not exceed 28 years (60 years for the proposed CDM A/R PoA), counting from the start date of the PoA	Duration of the PoA is 28 years. The validation team reviewed the POA-DD and accepted the same.
7.6. Environmental impacts 44. The analysis of the environmental impacts and, as applicable, the environmental impact assessment referred to in this section shall be carried out for the whole PoA or at the CPA level. The coordinating/managing entity shall describe the level applied	As per PoA-DD ^{/2/} , it would be demonstrated at the PoA level. Hence accepted.
45. If the coordinating/managing entity has chosen to carry out the analysis of the environmental impacts for the whole PoA, it shall carry out the analysis, including transboundary impacts (or, in the case of a proposed A/R CDM PoA, impacts on biodiversity and natural ecosystems and impacts outside the programme boundary), and provide a summary of the analysis and references to all related documentation	Demonstration of whether EIA is required or not for the project is conducted at PoA level. The validation team has reviewed the Schedule 1 of the EIA notification ^{/6/} 2006, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986. As per this notification, the PoA doesn't fall under the list of activities requiring EIA. The validation team concludes that the environmental impact by the project activity need not be assessed by the PP/CME. The project activity does not cause adverse environmental impacts and there are no regulations in the host country, India to conduct the EIA for the project activity. The same is confirmed from the EIA notification 2006. (http://moef.nic.in/legis/eia/so1533.pdf).
46. If, as a result of the analysis referred to in paragraph 45 above, the coordinating/managing entity or the host Party(ies) consider the environmental impacts of the proposed CDM PoA significant, it shall carry out an environmental impact assessment in accordance with the relevant procedures of the host Party(ies), and provide all conclusions and references to all related	As mentioned above, this is no need of any EIA as there is no negative impacts from the PoA.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
documentation (and, in the case of a proposed A/R CDM PoA, the coordinating/managing entity shall also provide a description of the planned monitoring and remedial measures to address these significant impacts).	
47. If the proposed CDM PoA will include only non-A/R small-scale CPAs, the coordinating/managing entity shall carry out an analysis of the environmental impacts of the PoA if required by the host Party(ies). If the analysis is carried out, the coordinating/managing entity shall provide a summary of the analysis and the references to all related documentation	As mentioned above, this is no need of any EIA as there is no negative impacts from the PoA.
7.7. Socio-economic impacts 48. For a proposed A/R CDM PoA, the coordinating/managing entity shall carry out an analysis of its major socio-economic impacts, including impacts outside the programme or project boundary, for the whole PoA or at the CPA level. The coordinating/managing entity shall describe the level applied.	As per PoA-DD ²⁷ , it would be demonstrated at the PoA level. There is no negative impact on social or economic aspect from the PoA. Hence accepted.
49. If the coordinating/managing entity has chosen to carry out the analysis for the whole PoA, it shall carry out the analysis and provide a summary of the analysis and references to all related documentation.	There is no negative impact on social or economic aspect from the PoA. Hence accepted.
50. If, as a result of the analysis referred to in paragraph 49 above, the coordinating/managing entity or the host Party considers any negative impact as significant, the coordinating/managing entity shall carry out a socio-economic impact assessment in accordance with the relevant procedures of the host Party. The coordinating/managing entity shall provide all conclusions, references to all related documentation and a description of the planned monitoring and remedial measures to address these significant impacts.	There is no negative impact on social or economic aspect from the PoA. Hence accepted.
7.8. Local stakeholder consultation 7.8.1. General requirements 51. The coordinating/managing entity shall invite local stakeholders to provide comments on the proposed CDM PoA and shall demonstrate how due steps/actions were taken to appropriately engage stakeholders and solicit comments in accordance with this section. A local stakeholder consultation shall be carried out for the whole PoA or at the CPA level. The coordinating/managing entity shall specify the level of consultation applied.	As per PoA-DD ²⁷ , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
7.8.2. Scope of local stakeholder consultation 52. The scope of the local stakeholder consultation shall comprise, as a minimum, the potential direct positive and negative impacts that the proposed CDM PoA may have.	As per PoA-DD ²⁷ , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
53. The coordinating/managing entity shall conduct the local stakeholder consultation in accordance with applicable host Party rules, if any.	As per PoA-DD ²⁷ , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA,

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
Where host Party rules on local stakeholder consultation are applicable, the coordinating/managing entity shall provide, in the PoA-DD, a summary of the consultations carried out under the host Party rules, including the direct positive and negative impacts identified and how the negative impacts identified will be addressed.	where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
7.8.3. Minimum group of stakeholders to be involved 54. For the purpose of the local stakeholder consultation, the coordinating/managing entity shall invite, as a minimum, representatives of local stakeholders directly impacted by the proposed CDM PoA and representatives of local authorities relevant to the PoA.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
55. The coordinating/managing entity shall provide evidence that invitations were sent to the relevant stakeholders and that their comments were invited. If any of the relevant stakeholders were not invited, the coordinating/managing entity shall provide appropriate justification.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
7.8.4. Means for inviting stakeholders' participation 56. The coordinating/managing entity shall invite local stakeholders to provide comments on the proposed CDM PoA in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted, and shall describe the steps/actions taken to invite comments, taking into account local and national circumstances.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
57. The coordinating/managing entity shall convey information to stakeholders about the local stakeholder consultation and the proposed CDM PoA. This should include information disseminated in ways that are appropriate for the community that is directly affected by the PoA. In areas where a significant part of the population is illiterate, the information shall be provided orally.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
7.8.5. Information to be made available to stakeholders 58. The coordinating/managing entity shall describe the proposed CDM PoA in a manner that allows local stakeholders to understand the PoA. The information to be made available to stakeholders shall include, inter alia: (a) A summary of the proposed CDM PoA, explaining the PoA in simple, non-technical terms, and containing a description of the direct positive and negative impacts; (b) Information on the projected scope, lifetime, and direct positive and negative impacts of the proposed CDM PoA; (c) Other relevant information about the proposed CDM PoA, taking into account confidentiality provisions of the applicable CDM M&Ps referred to in paragraph 1 above;	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
(d) The means to provide comments about the proposed CDM PoA.	
7.8.6. Conduct of consultation 59. The coordinating/managing entity shall conduct the local stakeholder consultation through means that are appropriate for the local and national circumstances.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
60. The coordinating/managing entity shall provide local stakeholders with the opportunity to comment in writing or via other means and gather their comments about the proposed CDM PoA and its direct impacts.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
61. The coordinating/managing entity shall request the DNA(s) of the host Party(ies) to forward any and all comments from local stakeholders to it.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
7.8.7. Summary of comments received 62. The coordinating/managing entity shall prepare a summary report of the comments received from local stakeholders.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
7.8.8. Consideration of comments received 63. The coordinating/managing entity shall consider the comments provided by local stakeholders and report on how they have taken them into account in the PoA-DD or in the revised PoA-DD. The coordinating/managing entity shall provide justification if any comments were not incorporated.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
7.8.9. Timing of local stakeholder consultation 64. The coordinating/managing entity shall complete the local stakeholder consultation process at the timing required by the rules of the host Party on local stakeholder consultation, if such rules exist. If host Party rules do not exist, the coordinating/managing entity shall complete the process before, whichever the earlier of: (a) The earliest of the start dates of the CPAs as defined in the "Glossary: CDM terms"; that will be included in the PoA; or (b) The date of submitting the PoA-DD of the proposed CDM PoA to a DOE for validation.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. It also stated that LSC would be conducted before the start date of each CPA. Hence not applicable.
65. For the PoAs that do not meet the requirement referred to in paragraph 64(a) above, but for which the start date is before 23 February 2017, the coordinating/managing entity may, in accordance with the "Procedure: Direct communication with stakeholders", submit a request for exemption from the requirement to the Board for its consideration on a case- by-case basis.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
7.8.10. Activities after local stakeholder consultation 66. If, during the validation of the proposed CDM PoA, complaints submitted to the DNA(s) of the host Party(ies) on the handling of the outcome of the local stakeholder consultation are forwarded to the coordinating/managing entity through the DOE in accordance with the "CDM project cycle procedure for programmes of activities", the coordinating/managing entity shall take due account of such complaints and modify the PoA-DD as appropriate before the DOE concludes the validation.	As per PoA-DD ^{2/} , it would be demonstrated at the CPA level. Hence not applicable.
67. If significant changes to the programme design	As per PoA-DD ^{2/} , it would be demonstrated at the

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
occur after the invitation of comments from local stakeholders, the coordinating/managing entity shall conduct a new local stakeholder consultation with relevant stakeholders.	CPA level. Hence not applicable.
7.9. Sustainable development co-benefits 68. The coordinating/managing entity may, separately from the monitoring plan referred to in section 8.2.5 below, develop a document describing how it intends to monitor sustainable development co-benefits of the proposed CDM PoA, including the frequency of reporting of monitoring results and whether they intend to have monitoring results independently verified.	CME mentioned the environmental and social – economic benefits of the PoA in the section A.1 of PoA-DD ^{/2/} . But it intends not to monitor separately. Since this is not a mandatory requirement, the validation team has accepted it.
7.10. Approval and authorization 69. The coordinating/managing entity shall obtain a letter of approval from the DNA of each Party involved in the proposed CDM PoA that: (a) Confirms that the Party is a Party to the Kyoto Protocol; (b) Confirms that the participation in the proposed CDM PoA is voluntary; (c) Refers to the precise title of the proposed CDM PoA.	There are two parties involved in this PoA. Host party is India and other party involved is Germany. Nature Club of Rajasthan, the CME, has obtained LOA letters from both the parties as below. Indian DNA: Ministry of Environment, Forest and Climate Change (DNA of India) issued LoA ^{/8/} (Ref no: 13008/81/2017-CC dated on 15 th April 2019 wherein the following was confirmed. 1. India is party to the Kyoto protocol. India ratified the protocol in August 2002. 2. The participation of the DNA in the proposed CDM PoA is voluntary 3. The LoA refers to the precise title of the proposed PoA. German DNA: The Federal Environment Agency (DNA of Germany) issued LoA ^{/8/} dated on 19 th August 2019 wherein the following was confirmed. 1. Germany is party to the Kyoto protocol. 2. The participation of the DNA in the proposed CDM PoA is voluntary 3. The LoA refers to the precise title of the proposed PoA.
70. Each project participant shall be authorized by at least one Party involved in the proposed CDM PoA to participate in the PoA, to be confirmed in the letter of approval referred to in paragraph 69 above or in a separate authorization letter.	German DNA, in its LoA letter ^{/8/} as above, has authorised Atmosfair, the PP to participate in the PoA.
71. The coordinating/managing entity shall be authorized by each host Party of the proposed CDM PoA to coordinate the PoA, confirmed in the letter of approval referred to in paragraph 69 above or in a separate authorization letter.	Indian DNA, in its LoA letter ^{/8/} as above, has authorised Nature Club of Rajasthan, the CME to participate in the PoA. German DNA, in its LoA letter as above, has authorised the CME to participate in the PoA.
72. The entities/individuals responsible for the operation of individual CPAs (CPA implementers) are not required to be project participants. The project participants of a CDM PoA are only recorded at the PoA level.	As per the interview with Nature Club of Rajasthan and Atmosfair (the PP), Atmosfair would be the CPA implementer for the CPAs. Hence the validation team has accepted the arrangement as acceptable.
73. In addition to the requirement in paragraph 69 above, the letter of approval from the host Party shall confirm that the proposed CDM PoA assists the host Party in achieving sustainable development.	Indian DNA, in its LoA letter ^{/8/} as above, has confirmed the PoA assists India in achieving sustainable development.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
74. Where the methodologies applied to the proposed CDM PoA provide for the application of a system, such as an electricity grid, and that system extends across more than one Party, a letter of approval is required from the host Party and all other Parties involved in the system as indicated in the PoA-DD.	Since individual CPAs would be located in only one host country, this requirement is not relevant.
7.11. Modalities of communication 75. The coordinating/managing entity shall define for the proposed CDM PoA its modalities of communication with the Board, and present them in a "Modalities of communication statement" (MoC statement), with the following content: (a) The title of the proposed CDM PoA (and UNFCCC reference number if available); (b) The date of submission of the MoC statement (to a DOE for inclusion in the request for registration or to the secretariat for changes after registration); (c) The designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity; (d) A list of all project participants, contact details and specimen signatures of their authorized signatories; (e) The signature of an authorized signatory (electronic if available) of the coordinating/managing entity confirming its agreement with the MoC statement.	The validation team has reviewed the MOC^{/9/} and observed the following. The title in matching with that of the PoA-DD^{/2/}. The MoC was signed on 3rd Sep 2019. The validation team has reviewed the MoC wherein designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity is observed. The signature of an authorized signatory of the CME confirming its agreement with the MoC statement.
7.12. Generic component project activity 7.12.1. General requirements 76. As part of the PoA-DD for the proposed CDM PoA, the coordinating/managing entity shall prepare a generic CPA-DD. The generic CPA-DD shall: (a) Describe the technologies/measures to be employed and/or implemented by the corresponding CPAs, including a description of their common features; (b) Define the conditions and circumstances under which technologies/measures may be included as CPAs in the PoA, by establishing eligibility criteria for inclusion of CPAs in the PoA; (c) Specify how the corresponding CPAs are to be designed to ensure that they comply with all applicable CDM requirements, including the requirements in this standard and in the applied methodologies and, where applicable, the applied standardized baselines.	The validation team based on the review of PoA-DD^{/2/}, has confirmed the PoA contains 3 generic CPAs. The description of the same is briefed below. Generic CPA no 1: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0^{/3/}.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	Generic CPA no 2: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. Generic CPA no 3: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. The validation team has mentioned the technologies to be employed in the each generic CPAs under corresponding sections (part II) of generic CPA. The validation opinion of eligibility criteria for each generic CPA is detailed in Appendix 6 and 7 of this report. The validation opinion of applicable conditons of each generic CPAs is reported in Appendix 5 of this report.
77. For a proposed CDM PoA applying more than one technology/measure or more than one methodology, the coordinating/managing entity shall	There are atleast 3 scenarios defined by the CME in the PoA-DD. CME has provided generic CPA for each scenario.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
prepare a generic CPA-DD for each technology/measure, each methodology and each combination thereof	Generic CPA no 1: This generic CPA will be using methodologies AMS.II. G v10.0, AMS.III. BG v3.0 and AMS.I.E v9.0. Generic CPA no 2: This generic CPA will be using methodologies AMS.II. G v10.0 and AMS.III. BG v3.0 Generic CPA no 3: This generic CPA will be using applied methodology AMS.II. G v10.0
78. The coordinating/managing entity shall consider any specific guidance in the applied methodologies regarding the requirement to prepare separate generic CPA-DDs for each technology/measure, taking into account differences in the means of demonstration of additionality, GHG emission reduction or net anthropogenic GHG removal calculations, and monitoring methods applicable to the technologies/measures being implemented.	There are atleast 3 generic CPAs developed by the CME in the PoA-DD based on the type of scenario envisaged by the CME. CME has provided generic CPA for each scenario.
79. As an exception to paragraphs 77 and 78 above, when the technologies/measures are included in the positive lists for additionality demonstration in the “Methodological tool: Demonstration of additionality of small-scale project activities” or the “Methodological tool: Demonstration of additionality of microscale project activities” a generic CPA-DD may cover more than one technology/measure. However, the coordinating/managing entity shall still include all information related to eligibility criteria, GHG emission reduction or net anthropogenic GHG removal calculations and monitoring requirements for each technology/measure separately taking into account any specific guidance in the applied methodologies	Generic CPA no 1: This generic CPA will be using methodologies AMS.II. G v10.0 (type II), AMS.III. BG v3.0 (type III) and AMS.I.E v9.0 (type I). So three types are applicable in this generic CPA. CME proposed demonstration of additionality for type I, II, III under microscale additionality tool v9.0. Generic CPA no 2: This generic CPA will be using methodologies AMS.II. G v10.0 (type II) and AMS.III. BG v3.0 (type III). So two types are applicable in this generic CPA. Generic CPA no 3: This generic CPA will be using applied methodology AMS.II. G v10.0 (type II). So only type II is applicable in this generic CPA.
80. If a generic CPA-DD indicates that the corresponding CPAs are deemed automatically additional in accordance with the “Methodological tool: Demonstration of additionality of microscale project activities” and if the coordinating/managing entity intends to include such CPAs without validation by a DOE prior to inclusion in accordance with the “CDM project cycle procedure for programmes of activities”, the coordinating/managing entity shall prepare a CPA inclusion template as part of the proposed CDM PoA.	CME intends to include three generic CPAs by the DOE.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
7.12.2. General description of generic component project activity 81. The coordinating/managing entity shall describe the generic CPA in the generic CPA-DD. When describing the generic CPA, the coordinating/managing entity shall provide, inter alia, the following information: (a) The purpose of the generic CPA; (b) The technologies/measures to be employed and/or implemented by the corresponding CPAs, including: (i) A list of the facilities, systems and equipment that will be installed and/or modified by the corresponding CPAs; (ii) The types and levels of services (such as the amount of certain type of cement produced or the amount of electricity fed into the electricity grid) provided by the facilities, systems and equipment and their relation, if any, to other facilities, systems and equipment outside the project boundary; (iii) The arrangement of the facilities, systems and equipment; (iv) The range of the age and average lifetime of the equipment based on the manufacturer's specifications and industry standards; (v) The range of the installed capacities, load factors and efficiencies; (vi) The energy and mass flows and balances of the facilities, systems and equipment, if necessary; (vii) The monitoring equipment and their location in the systems; (c) The technologies/measures existing prior to the implementation of the corresponding CPAs at the same sites, as applicable, including the equivalent information listed in subparagraph (b) above on the facilities, systems and equipment; (d) A short summary of the baseline scenario as established in accordance with section 7.12.4.6 below, including the equivalent information listed in subparagraph (b) above.	For all the generic CPAs: The validation team has reviewed the PoA-DD^{2/} and verified that CME described the generic CPAs in detail and requirements of para 81 of PS is thus satisfied.
7.12.3. Selection of methodologies and standardized baselines 82. The coordinating/managing entity shall select methodologies that have been approved by the Board and that are valid and applicable to the generic CPA.	Generic CPA 1: CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100. AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79 AMS-I.E.Switch from non-renewable biomass for

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	thermal applications by the user --- Version 9.0 adopted at EB100. Generic CPA 2: CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100. AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79 Generic CPA 3: CME used methodology AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100. Hence accepted by the validation team.
83. In selecting a methodology for the generic CPA, the coordinating/managing entity may: (a) Propose a new methodology in accordance with the "Procedure: Development, revision and clarification of methodologies and methodological tools (b) Propose a revision to an approved methodology or methodological tool in accordance with the procedure referred to in subparagraph (a) above; (c) Seek clarification of an approved methodology or methodological tool in accordance with the procedure referred to in subparagraph (a) above; or (d) Request approval of deviation from an approved methodology or methodological tool in accordance with the "CDM project cycle procedure for programmes of activities".	For all the generic CPAs: CME has not proposed any new methodology, or revision, or clarification or deviation.
84. The coordinating/managing entity may select a standardized baseline that has been approved by the Board, if it is valid and applicable to the generic CPA and to the selected methodology in accordance with the applicability section of the standardized baseline (hereinafter referred to as selected standardized baseline).	For all the generic CPAs: CME has not used any standardised baseline. Hence not applicable
85. Notwithstanding paragraph 84 above, the coordinating/managing entity shall select an approved standardized baseline for the generic CPA if the standardized baseline is valid, and applicable to the generic CPA and to the selected methodology, and the selection of the standardized baseline is mandatory in accordance with the applicability section of the standardized baseline.	For all the generic CPAs: CME has not used any standardised baseline. Hence not applicable.
86. Notwithstanding paragraphs 84 and 85 above, the coordinating/managing entity shall not select an approved standardized baseline that standardizes additionality for the generic CPA if the start date of the proposed CDM PoA is before the date when the standardized baseline becomes valid.	For all the generic CPAs: CME has not used any standardised baseline. Hence not applicable.
87. If a PoA-DD has been published for global stakeholder consultation when no applicable approved standardized baseline was valid, and if,	For all the generic CPAs: CME has not used any standardised baseline.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
after the publication of the PoA-DD for global stakeholder consultation but before the submission of a request for registration of the proposed CDM PoA, an applicable approved standardized baseline whose selection is mandatory has become valid, the request for registration may be submitted without selecting the standardized baseline if the submission is made within 240 days after the standardized baseline became valid	Hence not applicable.
88. In selecting a standardized baseline for the generic CPA, the coordinating/managing entity may, in accordance with the "Procedure: Development, revision, clarification and update of standardized baselines": (a) Propose a new standardized baseline (b) Propose a revision to an approved standardized baseline; (c) Seek clarification of an approved standardized baseline; or (d) Propose an updated standardized baseline	For all the generic CPAs: CME has not used any standardised baseline. Hence not applicable.
89. In selecting a methodology, the coordinating/managing entity may select any approved methodology that is applicable to the generic CPA, irrespective of whether the methodology includes guidance on how to translate the relevant requirements into eligibility criteria	Under eligibility criteria section for each generic CPA, CME has mentioned that CME would satisfy all the applicable conditions of the methodologies for each CPA. Generic CPA 1: CME used methodologies AMS.II.G v10.0, AMS-III.BG v3.0 and AMS-I.E v9.0. At the time of inclusion of each CPA, all the applicable conditions of these methodologies would be satisfied. Generic CPA 2: CME used methodologies AMS.II.G v10.0, AMS-III.BG v3.0. At the time of inclusion of each CPA, all the applicable conditions of these methodologies would be satisfied. Generic CPA 3: CME used methodologies AMS.II.G v10.0. At the time of inclusion of each CPA, all the applicable conditions of this methodology would be satisfied.
7.12.4. Application of methodologies and standardized baselines 7.12.4.1. General requirements 90. The coordinating/managing entity shall provide the references (titles, versions and UNFCCC reference numbers) of the selected methodologies and, where applicable, of the selected standardized baselines that are applied to the generic CPA, including any other methodologies or methodological tools to which the selected methodologies refer.	Generic CPA no 1: CME used methodologies AMS.II.G v10.0, AMS-III.BG v3.0 and AMS-I.E v9.0. CME demonstrated the compliance of the project with respect to the applied methodologies. Refer Appendix 4 of this report for details. Generic CPA no 2: CME used methodologies AMS.II.G v10.0 and AMS-III.BG v3.0. CME demonstrated the compliance of the project with respect to the applied methodologies. Refer Appendix 4 of this report for details. Generic CPA no 3: CME used methodologies AMS.II.G v10.0 alone.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	CME demonstrated the compliance of the project with respect to the applied methodology. Refer Appendix 4 of this report for details.
91. The coordinating/managing entity shall demonstrate why the selected methodologies and, where applicable, the selected standardized baselines and any other standards, methodologies, methodological tools and guidelines applied in accordance with the selected methodologies (hereinafter "any other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the selected(applied) methodologies" are collectively referred to as the other (applied) methodological regulatory documents), are applicable to the corresponding CPAs by showing that the design of the generic CPA meets all applicability conditions of these regulatory documents.	For all the generic CPAs, CME demonstrated the compliance of all the generic CPAs with the relevant CDM regulatory documents. Refer Appendix 4 of this report for details.
92. The coordinating/managing entity shall ensure that the design of the generic CPA complies all the requirements in the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents	For all the generic CPAs, CME demonstrated the compliance of the all the generic CPAs with the relevant CDM regulatory documents. Refer Appendix 4 of this report for details.
7.12.4.2. Application of multiple small-scale methodologies 93. The coordinating/managing entity may apply combinations of multiple technologies/measures and/or small-scale methodologies for the proposed CDM PoA using one of the following options (a) The same combination of technologies/measures under the same combination of methodologies are applied consistently in every CPA in the PoA. For example, methane recovered from an anaerobic digester to treat animal manure applying the methodology AMS-III.D is used for heat generation applying the methodology AMS-I.C; (b) A single methodology is consistently applied in each CPA in the PoA but using different technologies/measures for different CPAs. For example, different wastewater treatment technologies are used in different CPAs in the PoA, applying the methodology AMS-III.H; (c) A principal technology/measure is used consistently in each CPA in the PoA, applying different combinations of methodologies to different CPAs. For example, wastewater treatment projects with different ways of utilizing recovered methane (methodologies AMS-I.C for heat, AMS-I.D and AMS-I.F for electricity, or both) or biomass/biogas projects with different fuel displacement (methodologies AMS-I.C and AMS-I.I for fossil fuel, AMS-I.E for non-renewable biomass, or both); or (d) Combinations of technologies/measures and/or methodologies vary across CPAs in the PoA to realize the policy or the goal of the PoA. To apply such combinations, the coordinating/managing entity shall demonstrate that the implementation of the	For all the generic CPAs: Combinations of technologies/measures and methodologies vary across CPAs in the PoA to realize the policy or the goal of the PoA. However, each CPA is mutually independent of each other. So CME applied option (d) in this case. Generic CPA no 1: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0 ^{/3/} . The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0 ^{/3/} . The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0 ^{/3/} . Generic CPA no 2: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
activities through CPAs is integrated through the design of the PoA. For example: (i) The coordinating/managing entity initiates and coordinates different GHG emission reduction activities as part of a city-wide effort to reduce GHG emissions to implement policy goals adopted by the city or the government. This may include different measures, such as energy production, transport, energy efficiency and waste management; (ii) The coordinating/managing entity initiates and coordinates the installation of renewable electricity systems, which may include grid-connected and off-grid systems, by providing financial incentives for the installation of these systems.	v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. Generic CPA no 3: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}.
94. In any of the options referred to in paragraph 93 above, the coordinating/managing entity shall either: (a) Demonstrate that no cross effects exist between the technologies/measures by following the instructions provided in appendix 1; or (b) If cross effects exist, take them into account in the calculation of GHG emission reductions	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive. Hence this is no cross effects.
95. For the purpose of meeting the requirement referred to in paragraph 94 above, the coordinating/managing entity may: (a) Seek clarification from the Board on the existence of cross effects or how they should be taken into account in the calculation of GHG emission reductions in accordance with the "Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools"; (b) Propose a revision to the applied methodologies in accordance with the procedure referred to in	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive. Hence this is no cross effects. Hence there is no clarification required from the board, revision to the applied methodologies, deviation from the applied methodologies.

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subparagraph (a) above to take into account the identified cross effects; or (c) Request approval of deviation from the applied methodologies in accordance with the “CDM project cycle procedure for programmes of activities” to take into account the identified cross effects	
7.12.4.3. Application of multiple large-scale methodologies 96. The coordinating/managing entity may apply combinations of multiple large-scale methodologies for the proposed CDM PoA, if it demonstrates that the application of multiple methodologies for the PoA is to realize the policy or goal of the PoA, and that the implementation of the activities through CPAs is integrated through the design of the PoA (see examples in paragraph 93(d) above).	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive and is using small scale methodologies only. Hence this condition is not relevant.
97. To apply multiple large-scale methodologies for the proposed CDM PoA, the coordinating/managing entity shall follow the instructions on the consideration of cross effects provided in appendix 1 and shall seek clarification from the Board on potential cross effects in the proposed combinations in accordance with the “Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools”. In doing so, a draft PoA-DD with completed sections of detailed technical descriptions shall also be submitted.	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive and is using small scale methodologies only. Hence this condition is not relevant.
98. Notwithstanding paragraph 97 above, the coordinating/managing entity may apply the combinations explicitly permitted in the methodologies or the combinations that satisfy one of the following two conditions without seeking clarification from the Board: (a) If each CPA applies only one methodology, and there is no interaction between different CPAs. An interaction shall be deemed to occur in the following cases, but not limited to, where: (i) One CPA is dependent on the implementation of another CPA, or one CPA impacts the profitability or GHG emission reductions or net anthropogenic GHG removals achieved by another CPA; (ii) One CPA is interlinked with another CPA by the technologies applied or economic decisions taken (b) If multiple large-scale methodologies are combined within a CPA, or different CPAs applying different methodologies are implemented such that geographical boundaries overlap, and the combination falls under one of the following types: (i) Recovery of waste gas/energy under one measure and its use in another measure for one or more applications (e.g. power, heat, natural gas distribution grid, feedstock). For example, biogas may be firstly recovered (methodology ACM0010), and then used as a feedstock and fuel for town gas production (methodology AM0069) or for the purpose of injection to a natural gas distribution grid	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive and is using small scale methodologies only. Hence this condition is not relevant.

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(methodology AM0053); (ii) Waste gas destruction (e.g. N₂O) under one measure and energy efficiency/fuel switch as another measure in the same industrial plant where the waste gas is generated. For example, while implementing N₂O abatement from nitric acid production (methodology ACM0019), fossil fuel tri-generation systems may also be implemented in the facilities (methodology AM0076); (iii) Renewable energy production for different uses. For example, a renewable energy power plant supplies power to the grid under one measure (methodology ACM0002) and the same plant replaces part of the electricity production of a standalone fossil fuel fired power plant under another measure (methodology AM0019); (iv) Interconnection of electricity grid systems and at the same time, the introduction of renewable-, natural gas- or clean coal-based power plants. For example, while interconnecting different electricity systems for energy exchange (methodology AM0108), a new renewable-based power plant may be built to supply power to the exporting grid (methodology ACM0002); (v) Aeration of landfills and collection of the residual landfill gas or residual waste after aeration for further utilization. For example, the solid waste in a landfill after aeration (methodology AM0083) may be further incinerated for gainful use (methodology ACM0022).	
7.12.4.4. Application of combination of large-scale and small-scale methodologies 99. The coordinating/managing entity may apply a combination of large-scale and small-scale methodologies for the proposed CDM PoA if it complies with the same requirements for the combinations of multiple large-scale methodologies referred to in paragraphs 96–98 above, mutatis mutandis	For all the three generic CPAs: CME has used three generic CPAs which is mutually exclusive and is using small scale methodologies only. Hence this condition is not relevant.
7.12.4.5. Project boundary, sources and greenhouse gases 100. The coordinating/managing entity shall describe how to define the project boundary of each of the corresponding CPAs, including which sources and GHGs are to be included in the project boundary under which conditions or circumstances, in accordance with the applied methodologies and the applied standardized baselines.	For all the three generic CPAs: The validated team has reviewed the PoA-DD^[2] under relevant section project boundary and accepted the source and sink of the CPAs. Scenario mentioned in the relevant sections (under project boundary section and baseline section for each generic CPA) is consistent.
101. If the applied methodologies or the applied standardized baselines allow the coordinating/managing entity to choose whether a source or GHG is to be included in the project boundary, the coordinating/managing entity shall explain and justify the choice.	For all the three generic CPAs: The validated team has reviewed the PoA-DD^[2] under relevant section project boundary and accepted the source and sink of the CPAs. Scenario mentioned in the relevant sections (under project boundary section and baseline section for each generic CPA) is consistent.
7.12.4.6. Baseline scenario 102. The coordinating/managing entity shall describe	For all the three generic CPAs:

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how to establish the baseline scenario for each of the corresponding CPAs in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, and the provisions in paragraphs 103–107 below	Baseline for each scenario as per Technology/ methodology is demonstrated. Baseline for each CPA is demonstrated.
103. When establishing the baseline scenario, if the coordinating/managing entity foresees that future anthropogenic emissions by sources are projected to rise above current levels due to the specific circumstances of the host Party, it may follow the “Guidelines on the consideration of suppressed demand in CDM methodologies” to propose a revision to an approved methodology to cover such scenario if it is not covered in the methodology.	For all the three generic CPAs: CME did not foresee future anthropogenic emissions by sources are projected to rise above current baseline levels due to the specific circumstances of the host Party. For this PoA, the minimum level to meet basic human needs is cooking for the entire family throughout the year. Since the minimum level to meet basic human needs would be met in the absence of the project activity using traditional cook stoves with non-renewable fuelwood anyway. The validation team has accepted there is no need to revision the methodologies.
104. As a general principle, relevant national and/or sectoral policies, regulations and circumstances shall be taken into account in the establishment of the baseline scenario, without creating perverse incentives that may impact host Parties' contributions to the ultimate objective of the Convention	For all the three generic CPAs: The baseline was pre-defined the applied methodologies which does not creating any perverse incentives that may impact host Parties' contributions to the ultimate objective of the Convention.
105. When establishing the baseline scenario, the coordinating/managing entity shall take into account the following two types of national and/or sectoral policies or regulations: (a) National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels; (b) National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes).	For all the three generic CPAs: The baseline was pre-defined the applied methodologies. Generic CPA no 1: This CPA involves three components namely Type 2 (energy efficiency), type 3 (sustainable charcoal production and consumption) and Type 1 (replacing non-renewable biomass with renewable biomass). The baselines for each component is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0 ^{/3/} , It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households uses fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario. Type 3 component: As per para 19 & 20 of AMS.III.BG v3.0 ^{/3/} , for the charcoal portion produced from non-renewable biomass in the baseline, it is assumed that in the

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	absence of the project activity, the baseline scenario would be the future use of fossil fuels for meeting similar thermal energy needs. For the charcoal portion produced from renewable biomass in the baseline, traditional open-ended methods resulting in methane emitted to the atmosphere forms the baseline scenario. The component aims at replacing conventional charcoal used by different consumers who use conventional charcoal produced from unsustainably harvested fuelwood. Hence forms the baseline. CER will only be claimed for charcoal generated as a by-product in cooking in project cookstove for which ER are also claimed under AMS-II.G. Another element of the baseline scenario of this component consists in methane generation from traditional open-ended charcoal production methods for conventional charcoal replaced by the CPA. As per para 20 and 21 of AMS.III.BG v3.0^{/3/}, methane generation is considered for the portion of charcoal produced from the fraction of biomass deemed renewable only. Hence accepted by the validation team. Type 1 component: As per para 19 of AMS.I.E v9.0^{/3/}, It is assumed that in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs. The baseline consists in the use of conventional fuelwood in the project cookstoves. ER will only be claimed for the use of renewable biomass in project cookstove that are distributed under the PoA. Generic CPA no 2: This CPA involves two components namely Type 2 (energy efficiency), type 3 (sustainable charcoal production and consumption). The baselines for each component is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0^{/3/}, It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households uses fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario. Type 3 component:

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	As per para 19 & 20 of AMS.III.BG v3.0^{/3/}, for the charcoal portion produced from non-renewable biomass in the baseline, it is assumed that in the absence of the project activity, the baseline scenario would be the future use of fossil fuels for meeting similar thermal energy needs. For the charcoal portion produced from renewable biomass in the baseline, traditional open-ended methods resulting in methane emitted to the atmosphere forms the baseline scenario. The component aims at replacing conventional charcoal used by different consumers who use conventional charcoal produced from unsustainably harvested fuelwood. Hence forms the baseline. CER will only be claimed for charcoal generated as a by-product in cooking in project cookstove for which ER are also claimed under AMS-II.G^{/3/}. Another element of the baseline scenario of this component consists in methane generation from traditional open-ended charcoal production methods for conventional charcoal replaced by the CPA. As per para 20 and 21 of AMS.III.BG v3.0^{/3/}, methane generation is considered for the portion of charcoal produced from the fraction of biomass deemed renewable only. Hence accepted by the validation team. Generic CPA no 3: This CPA involves one component namely Type 2 (energy efficiency). The baseline for the component involved is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0, It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households uses fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario.
106. The coordinating/managing entity shall address the two types of policies or regulations described in paragraph 105 above as follows: (a) Only national and/or sectoral policies or regulations described in paragraph 105(a) above that have been implemented before the adoption of the Kyoto Protocol by the Conference of the Parties (hereinafter referred to as the COP) (decision 1/CP.3, 11 December 1997) shall be taken into account when establishing the baseline scenario. If such national and/or sectoral policies or regulations	For all the three generic CPAs: The baseline was pre-defined the applied methodologies. Hence baseline identification by the CME is accepted by the validation team.

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were implemented since the adoption of the Kyoto Protocol, the baseline scenario should refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place; (b) National and/or sectoral policies or regulations described in paragraph 105(b) above that have been implemented since the adoption by the COP of the CDM M&Ps (decision 17/CP.7, 11 November 2001) need not be taken into account in establishing the baseline scenario. If such national and/or sectoral policies or regulations were implemented since the adoption of the CDM M&Ps, the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place.	
107. Notwithstanding paragraphs 102–106 above or 135–137 below, if the generic CPA selects a standardized baseline that standardizes baseline scenario, the coordinating/managing entity shall describe the baseline scenario as per the applied standardized baseline.	For all the three generic CPAs: The baseline was pre-defined the applied methodologies. Hence baseline identification by the CME is accepted by the validation team. No standardised baseline used in the PoA-DD.
7.12.4.7. Estimation of emission reductions or net anthropogenic removals 108. The coordinating/managing entity shall describe how to undertake the ex-ante and ex-post calculations of baseline, project and leakage GHG emissions, as well as GHG emission reductions to be achieved by each of the corresponding CPAs, in accordance with the applied methodologies and the applied standardized baselines. If the generic CPA contains more than one component, the coordinating/managing entity shall apply this requirement for each component separately. The coordinating/managing entity shall describe all steps to be undertaken for these calculations.	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report
109. If the applied methodologies, the applied standardized baselines or other applied methodological regulatory documents include different scenarios or cases, or provide different options and/or default values to choose from, the coordinating/managing entity shall justify its choice.	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
110. To determine the performance of the equipment to be used in the corresponding CPAs, if required for the calculation of GHG emission reductions, the coordinating/managing entity shall use: (a) The appropriate values, or the values calculated based on the methods, specified in the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents; (b) The national standard for the performance of the equipment type (the coordinating/managing entity shall identify the standard used) if the values referred to in subparagraph (a) above is not available; (c) An international standard for the performance of the equipment type, such as International	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.

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Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) standards (the coordinating/managing entity shall identify the standard used) if the values referred to in subparagraphs (a) and (b) above are not available; (d) The manufacturer's specifications, provided that they are tested and certified by national or international certifiers, if the values referred to in subparagraphs (a)–(c) above are not available (e) Performance data from test results conducted by an independent entity for the equipment to be installed under the corresponding CPAs, if the values referred to in subparagraphs (a)–(d) above are not available	
111. The coordinating/managing entity shall use the valid version of the norms, specifications, standards and test procedures referred to in the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, as available at the time of submission of the PoA-DD or CPA-DD, as applicable, to a DOE for validation	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
112. The coordinating/managing entity shall, in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, describe how to determine the data and parameters that will not be monitored but are determined before the registration of the proposed PoA and remain fixed throughout the PoA period. These data and parameters shall be available at the time of the validation of the PoA for registration	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
113. The coordinating/managing entity shall ensure that the application of default data in the estimation of GHG emission reductions or net anthropogenic GHG removals for the corresponding CPAs results in conservative estimates	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
114. The coordinating/managing entity may use sampling for the determination of parameter values for calculating GHG emission reductions if the applied methodologies, the applied standardized baselines or other methodological regulatory documents, allow this. In such cases, the coordinating/managing entity shall develop and describe a sampling plan in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
7.12.4.8. Monitoring plan 115. The coordinating/managing entity shall describe how to develop a monitoring plan for each of the corresponding CPAs in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, all other applicable CDM rules and requirements, and the provisions in paragraphs 116–119 below.	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
116. In developing a monitoring plan for the generic CPA, the coordinating/managing entity shall apply	The validation team has reviewed the POA-DD where baseline, project and leakage emission

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the following unless the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents state otherwise: (a) Data variables that impact the GHG emission reductions continuously (e.g. quantity of fuel inputs, amount of heat or electricity produced, gas captured) shall be measured continuously and recorded at appropriate intervals; (b) Data variables that are generally constant (e.g. emission factors, calorific value, system efficiencies) shall be measured or calculated at least once a year; (c) Measuring equipment shall be certified to national or IEC standards; (d) The calibration of measuring equipment shall be carried out by an accredited person or institution; (e) Measured data with high levels of uncertainty shall be compared with data from other sources to check the consistency.	calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
117. For parameters to be measured in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, the monitoring plan shall include the following: (a) The measurement methods and procedures, including accepted industry standards or national or international standards that will be applied; the measuring equipment that will be used; how the measurements will be undertaken; the accuracy of the measurement methods; the measurement intervals; and the responsible person/entity who/that will undertake the measurements; (b) The calibration procedures to be applied and the responsible person/entity who/that will perform the calibration.	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.
118. The monitoring plan shall include all data, parameters and related information required by the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, including: (a) Quality assurance and quality control (QA/QC) procedures; (b) Uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables; (c) Specifications of the calibration frequency for the measuring equipment. If neither the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents, nor the Board's guidance specify any requirements for calibration frequency for measuring equipment, the coordinating/managing entity shall	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix 8 of this report.

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ensure that the equipment is calibrated either in accordance with the local/national standards or the manufacturer's specifications. If local/national standards or the manufacturer's specifications are not available, international standards may be used	
119. The monitoring plan shall also include the following other elements: (a) The operational and management structure to be put in place to implement the monitoring plan; (b) Provisions to ensure that data monitored and required for verification and issuance are kept and archived for at least two years after the end of the final crediting period or the last issuance of CERs, whichever occurs later; (c) Definition of responsibilities and institutional arrangements for data collection and archiving.	The validation team has reviewed the POA-DD where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure are detailed in Appendix of this report.
120. The coordinating/managing entity may choose to make a delayed submission of the description of how to develop the monitoring plan, that is, after the registration of the proposed CDM PoA and: (a) At any time prior to the submission of the request for issuance of CERs for the first monitoring period of the PoA; or (b) Together with the request for issuance of CERs for the first monitoring period of the PoA	For all the generic CPAs: CME preferred not to opt for delayed monitoring plan. The validation team has reviewed the PoA-DD where monitoring plan is demonstrated.
121. If the coordinating/managing entity chooses to make a delayed submission of the description of how to develop the monitoring plan in accordance with paragraph 120 above, it shall clearly state that the submission of the description of how to develop the monitoring plan is delayed and that the generic CPA-DD in the PoA-DD submitted for registration of the proposed CDM PoA does not contain information related to the monitoring plan	For all the generic CPAs: CME preferred not to opt for delayed monitoring plan. The validation team has reviewed the PoA-DD where monitoring plan is demonstrated.
7.12.5. Crediting period type and duration 122. The coordinating/managing entity shall select a type (renewable or fixed) and specify the duration of the crediting period applicable to all corresponding CPAs, taking into account that: (a) Each renewable crediting period shall be at most seven years and may be renewed at most two times, for a maximum total length of 21 years. The timing of renewal of the crediting period of the corresponding CPAs does not have to coincide with that of renewal of the PoA period; (b) A fixed crediting period shall be at most 10 years; (c) The crediting period of a CPA shall not exceed the end of the duration of the PoA, regardless of the crediting period type (renewable or fixed) of the CPA.	For all the generic CPAs: Each CPA has renewable crediting period of 7 years.
7.12.6. Eligibility criteria for inclusion of component project activities 123. The coordinating/managing entity shall define the eligibility criteria for inclusion of CPAs in the proposed CDM PoA, setting out required conditions	For all three generic CPAs: CME has defined eligibility criteria for inclusion of each CPAs. The validation team has reviewed the PoA-DD and accepted the same.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
for a proposed CPA to be included in the PoA, and shall demonstrate the usability of the eligibility criteria for assessing the inclusion of CPAs in the PoA. If the PoA establishes multiple generic CPAs, the coordinating/managing entity shall develop a distinct set of eligibility criteria for each generic CPA.	The validation team based on the review of PoA-DD, has confirmed the PoA contains 3 generic CPAs. Distinct set of eligibility criteria for each generic CPA is defined by the CME. Hence accepted by the validation team.
124. The eligibility criteria shall cover as a minimum the following: (a) Geographical boundaries of CPAs consistent with the geographical boundary of the PoA;	For all three generic CPAs: Each CPA would be implemented in host country (India). CME would sign end user/beneficiary agreement where location/ GPS of households would be recorded. Since it is is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted.
(b) Conditions to avoid double counting of GHG emission reductions or net anthropogenic GHG removals, such as unique identifications of product and end-user locations (e.g. programme logo);	For all three generic CPAs: CME would provide agreement ^{/12/} between CME and households(endusers). One of the clause is about the right to claim carbon credit. As per the agreement, the rights of claim of carbon credit lies with the atmosfair, the PP only. The households cede the rights to the PP as it is subsidising the stoves. The validation team has reviewed one agreement ^{/12/} where stove unique id, date of sale, Name and address of the enduser with GPS are recorded. Since it is is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted.
(c) Conditions to confirm that CPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered;	For all three generic CPAs: The validation team has reviewed the PoA-DD where it is stated that the CPA would not be registered neither as a single CDM project activity nor as a CPA under another PoA. The unique numbers allocated to each ICS under the PoA allow unique identification and tracking of the project cookstove. Based on the serial numbers, a stove can only count in one CPA only. Hence accepted. Since it is is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted.
(d) Specification of the technology/measure, such as the level and type of service, as well as performance specification based on, inter alia, testing/certification;	For all three generic CPAs: CME would provide technical specifications/efficiency certificate from Ministry of Micro, Small and Medium Enterprises. This includes type, installed capacity, dimensions, fixed/portable and efficiency would be mentioned. Since technical specification/testing certificate is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted
(e) Conditions to check the start dates of CPAs through documentary evidence;	For all three generic CPAs: CME would provide agreement ^{/12/} between CME and households(endusers). The agreement contains date of sale of cook stoves. The consolidated sales database would provide the start date of the CPA. Since it is verifiable, sufficiently objective and

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted
(f) Conditions to ensure compliance with the applicability of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;	For all three generic CPAs: The compliance with the applicability of methodologies would be demonstrated at the CPA level. The compliance with the applied methodologies for each generic CPA is reported in Appendix 5 of this report.
(g) Conditions to ensure that CPAs meet the requirements for demonstration of additionality as follows: (i) If the generic CPA applies large-scale methodologies, the conditions shall derive from the requirements contained in the additionality section of the applied methodologies;	For all three generic CPAs: All three generic CPAs used small scale methodologies. Hence this requirement is not applicable.
(ii) If the generic CPA is small-scale in accordance with the thresholds referred to in paragraphs 126 below and applies only small-scale methodologies, the conditions shall derive from the requirements contained in the additionality section of the applied methodologies, or if such section does not exist, from the "Methodological tool: Demonstrating additionality of small-scale project activities" ^{14/} and, where necessary, any applicable additionality tool;	For all three generic CPAs: CME used appendix of small scale additionality tool for demonstrating additionality of each CPA. The additionality is demonstrated at the CPA level. Penetration rate: The validation team has observed that the technology in question is biomass based micro-gasifier cook stoves (with portable or in-situ cook stoves with rated efficiency of more than 20% with charcoal as by-product) and services in question is distribution of such cook stoves for cooking purpose to the intended beneficiaries. The validation team has accepted the argument of CME that CME would demonstrate the technology penetration in the host country is equal to or less than 5% at the CPA level at the time of inclusion of each CPA. The validation team has understood that penetration refers to proportion of stock of functional equipment at the user end. The validation team has accepted the type of documents such as official reports, literature, industry reports or survey results (Type of sampling: stratified random sampling; Parameter in interest being proportion (yes or no), confidence/precision being 90/10) to be used for demonstrating the penetration rate. The validation team has accepted the timing of data used that CME would use the most recent data available at the time of submission of the CPA inclusion, and the data vintage used would not include data older than three years prior to (a) the start date of the PoA or (b) the start of validation/inclusion of CPAs, whichever is earlier. The validation team has accepted the revised PoA-DD as it now in line with para 12 of Tool-"Demonstration of additionality of microscale project activities" v9.0. Hence the validation team has accepted that energy efficiency unit can be treated as microscale units upon demonstration of technology penetration rate by the CME as above. Generic CPA no 1:

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.																																	
	This CPA is having three components with each component using different methodology as below. <table><tr><th>Component</th><th>Type</th><th>Methodology applied</th></tr><tr><td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td></tr><tr><td>Sustainable Charcoal production</td><td>Type III</td><td>AMS.III.BG v3.0</td></tr><tr><td>Replacing NRB to RB</td><td>Type I</td><td>AMS.I.E v9.0</td></tr></table> As per the appendix of small scale additionality tool v12.0, CME has not defined CPA aggregate for different types. So the CPA can include any number of project cook stoves. <table><tr><th>Type</th><th>CPA aggregate threshold limit prescribed as per small scale additionality tool v12.0 ^{/14/}</th><th>CPA aggregate for each type</th></tr><tr><td>Type II</td><td>60 GWh_e per year or 180 GWh_{th} per year</td><td>Not defined by the CME. So the CPA can include any number of project cook stoves.</td></tr><tr><td>Type III</td><td>60 ktCO2e per year</td><td>Not defined by the CME. So the CPA can include any number of project cook stoves</td></tr><tr><td>Type I</td><td>15 MW_e or 45 MW_{th}</td><td>Not defined by the CME. So the CPA can include any number of project cook stoves</td></tr></table> Microscale threshold limit: <table><tr><th>Type</th><th>Thresold unit size of all cook stoves prescribed as per Appenidx of small scale additionality tool v12.0 ^{/14/}</th><th>Unit size of project cookstove</th></tr><tr><td>Type II</td><td>20 GWh_e per year or 60 GWh_{th} per year</td><td>7.34 kWh_{th} per project cookstove per year</td></tr><tr><td>Type III</td><td>20 ktCO2e per year</td><td>1.82 tCO2e per project</td></tr></table>	Component	Type	Methodology applied	Improved cookstove	Type II	AMS.II.G v10.0	Sustainable Charcoal production	Type III	AMS.III.BG v3.0	Replacing NRB to RB	Type I	AMS.I.E v9.0	Type	CPA aggregate threshold limit prescribed as per small scale additionality tool v12.0 ^{/14/}	CPA aggregate for each type	Type II	60 GWh _e per year or 180 GWh _{th} per year	Not defined by the CME. So the CPA can include any number of project cook stoves.	Type III	60 ktCO2e per year	Not defined by the CME. So the CPA can include any number of project cook stoves	Type I	15 MW _e or 45 MW _{th}	Not defined by the CME. So the CPA can include any number of project cook stoves	Type	Thresold unit size of all cook stoves prescribed as per Appenidx of small scale additionality tool v12.0 ^{/14/}	Unit size of project cookstove	Type II	20 GWh _e per year or 60 GWh _{th} per year	7.34 kWh _{th} per project cookstove per year	Type III	20 ktCO2e per year	1.82 tCO2e per project
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			cookstove per year																					
	Type I	5 MW _e or 15 MW _{th}	1.516 kW _{th}																					
	Since unit size each type is less than that the corresponding limit, each project cookstove can be considered as microscale units. Additionality: <table border="1"> <thead> <tr> <th>Type</th> <th>Thresold unit size of each cook stove for being additional as prescribed in Appenidx of small scale additionality tool v12.0 ^{/14/}</th> <th>Unit size of project cookstove</th> </tr> </thead> <tbody> <tr> <td>Type II</td> <td>600 MWh_e per year or 1800 MWh_{th} per year and end users are households/ communities/ SMEs</td> <td>7.34 kWh_{th} per project cookstove per year. End user is households</td> </tr> <tr> <td>Type III</td> <td>600 tCO_{2e} per year and end users are households/ communities/ SMEs</td> <td>1.82 tCO_{2e} per project cookstove per year. End user is households</td> </tr> <tr> <td>Type I</td> <td>1500 kW_e or 4500 kW_{th} and end users are households/ communities/ SMEs</td> <td>1.516 kW_{th} End user is households</td> </tr> </tbody> </table> As all the relevant is satisfied, generic CPA is additional. Since it is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted. Generic CPA no 2: This CPA is having two components with each component using different methodology as below. <table border="1"> <thead> <tr> <th>Component</th> <th>Type</th> <th>Methodology applied</th> </tr> </thead> <tbody> <tr> <td>Improved cookstove</td> <td>Type II</td> <td>AMS.II.G v10.0</td> </tr> <tr> <td>Sustainable Charcoal production</td> <td>Type III</td> <td>AMS.III.BG v3.0</td> </tr> </tbody> </table> As per the appendix of small scale additionality tool			Type	Thresold unit size of each cook stove for being additional as prescribed in Appenidx of small scale additionality tool v12.0 ^{/14/}	Unit size of project cookstove	Type II	600 MWh _e per year or 1800 MWh _{th} per year and end users are households/ communities/ SMEs	7.34 kWh _{th} per project cookstove per year. End user is households	Type III	600 tCO _{2e} per year and end users are households/ communities/ SMEs	1.82 tCO _{2e} per project cookstove per year. End user is households	Type I	1500 kW _e or 4500 kW _{th} and end users are households/ communities/ SMEs	1.516 kW _{th} End user is households	Component	Type	Methodology applied	Improved cookstove	Type II	AMS.II.G v10.0	Sustainable Charcoal production	Type III	AMS.III.BG v3.0
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	v12.0, CME has not defined CPA aggregate for different types. So the CPA can include any number of project cook stoves.		
	Type	CPA aggregate threshold limit prescribed as per small scale additionality tool v12.0 ^{/14/}	CPA aggregate for each type
	Type II	60 GWh _e per year or 180 GWh _{th} per year	Not defined by the CME. So the CPA can include any number of project cook stoves.
	Type III	60 ktCO ₂ e per year	Not defined by the CME. So the CPA can include any number of project cook stoves
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	Type	Thresold unit size of all cook stoves prescribed as per Appenidx of small scale additionality tool v12.0 ^{/14/}	Unit size of project cookstove
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	Type II	600 MWh _e per year or 1800 MWh _{th} per year and end users are	7.34 kWh _{th} per project

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		households/ communities/ SMEs	cookstove per year. End user is households						
	Type III	600 tCO ₂ e per year and end users are households/ communities/ SMEs	1.82 tCO ₂ e per project cookstove per year. End user is households						
	As all the relevant is satisfied, generic CPA is additional. Since it is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted. Generic CPA no 3: This CPA is having one component which uses AMS.II. G v10.0.								
	<table border="1"> <thead> <tr> <th>Component</th> <th>Type</th> <th>Methodology applied</th> </tr> </thead> <tbody> <tr> <td>Improved cookstove</td> <td>Type II</td> <td>AMS.II.G v10.0</td> </tr> </tbody> </table>			Component	Type	Methodology applied	Improved cookstove	Type II	AMS.II.G v10.0
	Component	Type	Methodology applied						
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Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.		
			cookstove per year
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	Additionality:		
	Type	Thresold unit size of each project cook stove for being additional as prescribed in Appenidx of small scale additionality tool v12.0 ^{/14/}	Unit size of project cookstove
	Type II	600 MWh _e per year or 1800 MWh _{th} per year and end users are households/ communities/ SMEs	7.34 kWh _{th} per project cookstove per year. End user is households
	As all the relevant is satisfied, generic CPA is additional. Since it is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted.		
(iii) If the generic CPA is microscale in accordance with the thresholds referred to in paragraph 128 below and applies the “Methodological tool: Demonstrating additionality of microscale project activities” regardless of the scale of methodologies applied (i.e. large-scale methodologies, small-scale methodologies or combination thereof), the conditions shall derive from this tool;	For all the three generic CPAs: It is already validated as above.		
(iv) If investment analysis is used for the demonstration of additionality under the options referred to in subparagraphs (i) or (ii) above, the conditions shall: a. Define the input parameters that will be used in the investment analysis, together with a description of how the values for these parameters will be obtained for each CPA. The additionality of each CPA shall then be assessed by using the actual values, applicable to that CPA at the time of inclusion, in the investment analysis conducted for the purpose of demonstrating the additionality of the CPA; or	For all the three generic CPAs: Investment analysis is not used to demonstrate additionality. Hence not applicable.		
b. Define technical and economic criteria with a range of values for each input parameter, which qualify a CPA for inclusion in the PoA. Under this option, the eligibility criteria shall be updated in accordance with the requirements specified in the applied methodologies, the applied standardized baselines and the other applied methodological	For all the three generic CPAs: Investment analysis is not used to demonstrate additionality. Hence not applicable.		

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
regulatory documents, following the process of post-registration changes in accordance with the “CDM project cycle procedure for programmes of activities”. At the time of inclusion of a CPA, the coordinating/managing entity shall assess whether the actual values applicable to the CPA at that time fall within the range;	
(v) If the generic CPA applies a combination of large-scale methodologies or large-scale and small-scale methodologies, and the combination results in changed cash-flow for individual measures in comparison to the situation where the measures are implemented separately, the conditions shall be such that additionality is demonstrated for the measures both individually (i.e. for each of the measures) and collectively (i.e. for the combination of the measures);	For all the three generic CPAs: Investment analysis is not used to demonstrate additionality. Hence not applicable.
(vi) If the generic CPA applies large-scale or small-scale A/R methodologies, the conditions shall derive from the requirements contained in the additionality section of the applied methodologies;	For all the three generic CPAs: Generic CPA is not using A/R methodology.
(vii) If the generic CPA applies a standardized baseline that standardizes additionality, the conditions shall ensure that the applicability condition of the standardized baseline are met	For all the three generic CPAs: Generic CPA does not use standardised baseline. Hence not applicable.
(h) Conditions to ensure the compliance with other requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;	For all three generic CPAs: The compliance with the applicability of methodologies would be demonstrated at the CPA level. The compliance with the applied methodologies for each generic CPA is reported in Appendix 5 of this report.
(i) The PoA-specific requirements, including any conditions related to undertaking local stakeholder consultation and environmental impact analysis;	Environmental impact analysis: Demonstration of whether EIA is required or not for the project is conducted at PoA level. The validation team has reviewed the Schedule 1 of the EIA notification ^{6/} 2006, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986. As per this notification, the PoA doesn't fall under the list of activities requiring EIA. The validation team concludes that the environmental impact by the project activity need not be assessed by the PP/CME. The project activity does not cause adverse environmental impacts and there are no regulations in the host country, India to conduct the EIA for the project activity. The same is confirmed from the EIA notification 2006. (http://moef.nic.in/legis/eia/so1533.pdf). Since it is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted. Local stakeholder consultation: As per PoA-DD ^{12/} , LSC would be conducted for each CPA. LSC would be conducted before the start date of the CPA. . The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted. Since LSC is verifiable,

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted.
(j) Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance;	For all three generic CPAs: This would be demonstrated at the CPA level. CPA implementer would confirm there is no public funding. Since this is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted
(k) Target group (e.g. domestic/ commercial/ industrial, rural/ urban, grid-connected/off-grid), and where applicable, distribution mechanisms (e.g. direct installation)	For all three generic CPA: The validation team has reviewed the PoA-DD ^{/2/} wherein it is observed that project cook stoves are sold at a subsidised price to households in rural area. The CME is signing an agreement with end users. The validation team has reviewed one agreement where stove unique id, date of sale, Name and address of the enduser with GPS are recorded. Since this agreement is verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of the CPA in the PoA, the validation team has accepted
(l) If the generic CPA applies sampling for the determination of parameter values for calculating GHG emission reductions or net anthropogenic GHG removals, conditions related to sampling requirements for the PoA in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities";	For all three generic CPA: The calculation of CER is demonstrated at the CPA level. Hence sampling requirements would be demonstrated at the time of inclusion of CPA.
(m) If the generic CPA is small-scale or microscale, conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs. However, if the generic CPA consists solely of units that qualify as "microscale CDM units" as defined in the "Methodological tool: Demonstration of additionality of microscale project activities", these conditions are not required;	For all three generic CPA: It is already validated under additionality section as above
(n) If the generic CPA is small-scale or microscale, conditions for the debundling check based on the "Methodological tool: Assessment of debundling for small-scale project activities". However, if the generic CPA consists solely of units that qualify as "microscale CDM units", these conditions are not required.	For all three generic CPA: Since generic CPA consists of solely of units that that qualify as "microscale CDM units, debundling requirement is not required to be demonstrated.
Compliance with microscale CDM units of energy efficiency units: AMS-II.G. ver. 10 paragraph 46, and Microscale additionality tool, version 9.0 paragraphs 12(a) and 12 (b)(i) along with footnote 15-Penetration rate	For all three generic CPA: The validation team has observed that the technology in question is biomass based micro-gasifier cook stoves (with portable or in-situ cook stoves with rated efficiency of more than 20% with charcoal as by-product) and services in question is distribution of such cook stoves for cooking purpose to the intended beneficiaries. The validation team has accepted the argument of CME that CME would demonstrate the technology penetration in the host country is equal to or less than 5% at the CPA level at the time of inclusion of each CPA. The validation team has understood that penetration refers to proportion of stock of functional equipment at the

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	user end. The validation team has accepted the type of documents such as official reports, literature, industry reports or survey results (Type of sampling: stratified random sampling; Parameter in interest being proportion (yes or no), confidence/precision being 90/10) to be used for demonstrating the penetration rate. The validation team has accepted the timing of data used that CME would use the most recent data available at the time of submission of the CPA inclusion, and the data vintage used would not include data older than three years prior to (a) the start date of the PoA or (b) the start of validation/inclusion of CPAs, whichever is earlier. The validation team has accepted the final PoA-DD as it now in line with para 12 of Tool- "Demonstration of additionality of microscale project activities" v9.0. Hence the validation team has accepted that energy efficiency unit can be treated as microscale units upon demonstration of technology penetration rate by the CME as above.
7.12.7. Specific design requirements for small-scale component project activities 7.12.7.1. General requirements 125. The coordinating/managing entity designing a generic CPA for small-scale CPAs following the CDM SSC M&Ps and other CDM rules and requirements for small-scale project activities (hereinafter referred to as generic small-scale CPA) shall only use small-scale methodologies. However, the coordinating/managing entity may use large-scale methodologies for a generic CPA that is within the small-scale project activity thresholds if the CPA follows the CDM M&Ps and other CDM rules and requirements for large-scale project activities	Generic CPA no 1: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0^{/3/}. Generic CPA no 2: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}.

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
	In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. Generic CPA no 3: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}.
7.12.7.2. Project type and eligibility 126. The coordinating/managing entity shall indicate, from the following, the small-scale project type applicable to the generic small-scale CPA: (a) Type I: Renewable energy project activities with a maximum output capacity of 15 MW (or an appropriate equivalent). In this context: (i) "Output" is the installed/rated capacity as indicated by the manufacturer of the equipment or plant, irrespective of the actual load factor of the plant. The installed/rated capacity of renewable electricity generating units that involve turbine generator systems shall be based on the installed/rated capacity of the generator; (ii) Regarding the "appropriate equivalent" of 15 MW, decision 17/CP.7, paragraph 6(c)(i) refers to MW, but the coordinating/managing entity may refer to MW(p), MW(e) or MW(th). As MW(e) is the most common denomination, MW is defined as MW(e), and otherwise an appropriate conversion factor shall be applied; (iii) For biomass, biofuel and biogas project activities, the maximal limit of 15 MW(e) is equivalent to a 45 MW thermal output of the equipment or the plant (e.g. boilers). For thermal applications of biomass, biofuels or biogas (e.g. cookstoves), the limit of 45 MW(th) is the installed/rated capacity of the thermal	Generic CPA no 1: (3 components) This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. This component falls under Type II. The output capacity of each device is 7.34 kW_{th}/year. As per para 2 of the microscale additionality tool v9.0, threshold limit for microscale project for type 2 is 60 GW_{th}/year. As per para 46 of AMS.II.G v10.0, since the generic CPA consists solely of units that qualify as "microscale CDM units" as defined in the microscale additionality tool v9.0^{/14/}, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. This component falls under Type III. The output capacity of each device is 1.82 tCO₂e/year As per

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
application equipment or device(s) (e.g. biogas stoves). For electrical or mechanical applications, the limit of a 15 MW installed/rated output shall be used. In the case of co-firing renewable and fossil fuels, the rated capacity of the system when using fossil fuel shall apply; (iv) For thermal applications of solar energy project activities, "maximum output" shall be calculated using a conversion factor of 700 W(th)/m² of aperture area of glazed flat plate or evacuated tubular collector, that is, the eligibility limit in terms of aperture area is 64,000 m² of the collector. The coordinating/managing entity may also use other conversion factors determined as per the requirements in paragraph 110 above, but shall then justify why the chosen conversion factor is more appropriate to the generic CPA; (b) Type II: Energy efficiency improvement project activities that reduce energy consumption, on the supply and/or demand side, with a maximum energy saving of 60 GWh per year (or an appropriate equivalent) in any year of the crediting period. In this context, for project activities that improve thermal energy efficiency, the maximum energy saving of 60 GWh(e) per year is equivalent to 180 GWh(th) per year saving; or (c) Type III: Other project activities not included in Type I or Type II that result in GHG emission reductions not exceeding 60 kt CO₂e per year in any year of the crediting period.	para 2 of the microscale additionality tool v9.0^{/14/}, threshold limit for microscale project for type III is 20ktCo₂e/year. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0^{/3/}. This component falls under Type I. This component falls under Type I. The output capacity of each device is 1.516 kW_{th}. As per para 2 of the microscale additionality tool v9.0^{/14/}, threshold limit for microscale project for type I is 15 MW_{th}. As per para 36 of AMS.I.E v9.0^{/3/}, since the generic CPA consists solely of units that qualify as "microscale CDM units" as defined in the microscale additionality tool v9.0^{/14/}, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required. Generic CPA no 2: (Two components) This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. This component falls under Type II. The output capacity of each device is 7.34 kW_{th}/year. As per para 2 of the microscale additionality tool v9.0^{/14/}, threshold limit for microscale project for type 2 is 60 GW_{th}/year. As per para 46 of AMS.II.G v10.0^{/3/}, since the generic CPA consists solely of units that qualify as "microscale CDM units" as defined in the microscale additionality tool v9.0^{/14/}, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. This component falls under Type III. The output capacity of each device is 1.82 tCO₂e/year As per para 2 of the microscale

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.			
	additionality tool v9.0, threshold limit for microscale project for type III is 20ktCo2e/year. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. Generic CPA no 3: (one component) This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. This component falls under Type II. The output capacity of each device is 7.34 kW_{th}/year. As per para 2 of the microscale additionality tool v9.0^{/14/}, threshold limit for microscale project for type 2 is 60 GW_{th}/year. As per para 46 of AMS.II.G v10.0, since the generic CPA consists solely of units that qualify as “microscale CDM units” as defined in the microscale additionality tool v9.0^{/14/}, the conditions to ensure that CPAs that will be included meet the small-scale or microscale thresholds and remain within those thresholds throughout the crediting period of the CPAs are not required. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}.			
127. In selecting a small-scale project type for the generic CPA, the coordinating/managing entity shall consider that: (a) The three project types referred to in paragraph 126 above are mutually exclusive; (b) A small-scale CPA may contain more than one component, each belonging to one of the three project types referred to in paragraph 126 above. In this case, the sum of the scale of components belonging to the same project type shall not exceed the limit of that project type	For all the three generic CPAs: CME has considered the three types as mutually exclusive.			
128. Within each small-scale project type referred to in paragraph 126 above, if the scale of the generic small-scale CPA is under the corresponding	Generic CPA no 1: <table><tr><td>Type</td><td>Thresold capacity</td><td>Oouput capacity</td></tr></table>	Type	Thresold capacity	Oouput capacity
Type	Thresold capacity	Oouput capacity		

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.																											
threshold below, the coordinating/managing entity may benefit from simplified CDM rules and requirements for microscale project activities. In order to do so, the coordinating/managing entity shall indicate and demonstrate that the generic CPA qualifies for the microscale project type: (a) Type I: project activities with up to 5 MW output capacity that employ renewable energy as their primary technology; (b) Type II: project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year; or (c) Type III: Other project activities not included in Type I or Type II that aim to achieve GHG emission reductions at a scale of no more than 20 kt CO₂e per year	<table border="1"> <tr> <td></td><td>as per para 2 of microscale additionality tool v12.0^{/14/}</td><td>of each device</td></tr> <tr> <td>Type II</td><td>20 GWh_e per year or 60 GWh_{th} per year</td><td>7.34 kW_{th} per year</td></tr> <tr> <td>Type III</td><td>20 ktCO₂e per year</td><td>1.82 tCO₂e per year</td></tr> <tr> <td>Type I</td><td>5 MW_e or 15 MW_{th}</td><td>1.516 kW_{th}</td></tr> </table> Generic CPA no 2: <table border="1"> <tr> <td>Type</td><td>Thresold capacity as per para 2 of microscale additionality tool v12.0^{/14/}</td><td>Ouput capacity of each device</td></tr> <tr> <td>Type II</td><td>20 GWh_e per year or 60 GWh_{th} per year</td><td>7.34 kW_{th} per year</td></tr> <tr> <td>Type III</td><td>20 ktCO₂e per year</td><td>1.82 tCO₂e per year</td></tr> </table> Generic CPA no 3: <table border="1"> <tr> <td>Type</td><td>Thresold capacity as per para 2 of microscale additionality tool v12.0^{/14/}</td><td>Ouput capacity of each device</td></tr> <tr> <td>Type II</td><td>20 GWh_e per year or 60 GWh_{th} per year</td><td>7.34 kWh_{th} per year</td></tr> </table>		as per para 2 of microscale additionality tool v12.0 ^{/14/}	of each device	Type II	20 GWh _e per year or 60 GWh _{th} per year	7.34 kW _{th} per year	Type III	20 ktCO ₂ e per year	1.82 tCO ₂ e per year	Type I	5 MW _e or 15 MW _{th}	1.516 kW _{th}	Type	Thresold capacity as per para 2 of microscale additionality tool v12.0 ^{/14/}	Ouput capacity of each device	Type II	20 GWh _e per year or 60 GWh _{th} per year	7.34 kW _{th} per year	Type III	20 ktCO ₂ e per year	1.82 tCO ₂ e per year	Type	Thresold capacity as per para 2 of microscale additionality tool v12.0 ^{/14/}	Ouput capacity of each device	Type II	20 GWh _e per year or 60 GWh _{th} per year	7.34 kWh _{th} per year
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Type II	20 GWh _e per year or 60 GWh _{th} per year	7.34 kWh _{th} per year																										
7.12.7.3. General description of component project activity 129. If the coordinating/managing entity wishes to include more than one component in the generic small-scale CPA, it shall provide information on the small-scale project type (i.e. Type I, II and/or III), technologies/measures and applied methodologies separately for each component.	Generic CPA no 1: (3 components) <table border="1"> <tr> <th>Component</th><th>Type</th><th>Methodology applied</th></tr> <tr> <td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td></tr> <tr> <td>Sustainable Charcoal production</td><td>Type III</td><td>AMS.III.BG v3.0</td></tr> <tr> <td>Replacing NRB to RB</td><td>Type I</td><td>AMS.I.E v9.0</td></tr> </table> Generic CPA no 2: (2 components) <table border="1"> <tr> <th>Component</th><th>Type</th><th>Methodology applied</th></tr> <tr> <td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td></tr> <tr> <td>Sustainable Charcoal production</td><td>Type III</td><td>AMS.III.BG v3.0</td></tr> </table> Generic CPA no 3: (1 component) <table border="1"> <tr> <th>Component</th><th>Type</th><th>Methodology applied</th></tr> </table>	Component	Type	Methodology applied	Improved cookstove	Type II	AMS.II.G v10.0	Sustainable Charcoal production	Type III	AMS.III.BG v3.0	Replacing NRB to RB	Type I	AMS.I.E v9.0	Component	Type	Methodology applied	Improved cookstove	Type II	AMS.II.G v10.0	Sustainable Charcoal production	Type III	AMS.III.BG v3.0	Component	Type	Methodology applied			
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Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.																																							
	Improved cookstove	Type II	AMS.II.G v10.0																																					
7.12.7.4. Application of methodologies and standardized baselines 130. If leakage is to be considered, the coordinating/managing entity shall consider leakage only within the boundaries of non-Annex I Parties, unless otherwise required by the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents.	For all the generic CPAs: Leakage emissions are considered within the host country which is a non-Annex I party. The validation team checked the leakage calculations are as per applied corresponding methodologies.																																							
7.13. Validation for registration of programme of activities 149. The coordinating/managing entity or the project participants shall select a DOE, accredited for the validation function and in the sectoral scopes linked to the applied methodologies and relevant to the proposed CDM PoA, for validation of the PoA for registration. The coordinating/managing entity or the project participants shall have a contractual arrangement with the DOE for the validation.	Generic CPA no 1: (3 components) <table><tr><th>Component</th><th>Type</th><th>Methodology applied</th><th>Sector</th></tr><tr><td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td><td>3</td></tr><tr><td>Sustainable Charcoal production</td><td>Type III</td><td>AMS.III.BG v3.0</td><td>4</td></tr><tr><td>Replacing NRB to RB</td><td>Type I</td><td>AMS.I.E v9.0</td><td>1</td></tr></table> Generic CPA no 2: (2 components) <table><tr><th>Component</th><th>Type</th><th>Methodology applied</th><th>Sector</th></tr><tr><td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td><td>3</td></tr><tr><td>Sustainable Charcoal production</td><td>Type III</td><td>AMS.III.BG v3.0</td><td>4</td></tr></table> Generic CPA no 3: (1 component) <table><tr><th>Component</th><th>Type</th><th>Methodology applied</th><th>Sector</th></tr><tr><td>Improved cookstove</td><td>Type II</td><td>AMS.II.G v10.0</td><td>3</td></tr></table> As per this link https://cdm.unfccc.int/DOE/list/index.html , EPIC is accredited for all sectors including sectors 3,5,1. EPIC is signed an agreement for conducting the scope of PoA validation with atmosfair, the PP.				Component	Type	Methodology applied	Sector	Improved cookstove	Type II	AMS.II.G v10.0	3	Sustainable Charcoal production	Type III	AMS.III.BG v3.0	4	Replacing NRB to RB	Type I	AMS.I.E v9.0	1	Component	Type	Methodology applied	Sector	Improved cookstove	Type II	AMS.II.G v10.0	3	Sustainable Charcoal production	Type III	AMS.III.BG v3.0	4	Component	Type	Methodology applied	Sector	Improved cookstove	Type II	AMS.II.G v10.0	3
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150. The coordinating/managing entity shall submit to the selected DOE the completed PoA-DD, together with supporting documentation, for validation and publication for global stakeholder consultation. If the coordinating/managing entity developed a document for voluntary monitoring of sustainable development co-benefits in accordance with paragraph 68 above, they may also submit it to the selected DOE for publication	CME submitted POA-DD and supporting documents for GSCP. The validation team has published the PoA-DD on 22 nd June 2019. But there is no comment. CME did not develop any document for voluntary monitoring of sustainable development co-benefits.																																							
151. If the PoA-DD contains confidential or proprietary information, the coordinating/managing entity shall submit documentation in the following two versions:	No part is confidential.																																							

Requirements of project Standard for PoA v2.0	Validation opinion of how requirement of each para of Project Standard for PoA is satisfied.
(a) A version in which all parts containing confidential/proprietary information are redacted (e.g. by covering those parts with black ink) so that the version can be made publicly available without displaying confidential/proprietary information; (b) A version containing all information that is to be treated as confidential /proprietary by all parties handling this documentation (DOEs; Board members and alternate members; CDM panel and working group members; external experts requested to consider such documents in support of the work of the Board; and the secretariat).	
152. Information used to demonstrate additionality, to describe the application of the selected methodologies, the selected standardized baselines and the other methodological regulatory documents, and to support an environmental impact assessment shall not be considered proprietary or confidential. Any data, values and formulae included in electronic spreadsheets provided shall be made accessible and verifiable	No part is confidential.
153. Before publishing the PoA-DD for global stakeholder consultation in accordance with the “CDM project cycle procedure for programmes of activities”, the coordinating/managing entity may request the DOE to seek guidance from the Board on the acceptability of deviation from: (a) A selected methodology or methodological tool; or (b) Sections in the selected methodology or methodological tool that are not standardized by the selected standardized baselines, if the proposed CDM PoA applies standardized baselines	There is no deviation involved.
154. If, after the publication of the PoA-DD for global stakeholder consultation, the coordinating/managing entity has changed any of the applied methodologies or the combination thereof for the proposed CDM PoA, the coordinating/managing entity shall prepare a revised PoA-DD and submit it to any DOE for publication for a new global stakeholder consultation in accordance with the “CDM project cycle procedure for programmes of activities”, and request the DOE to restart validation	There was no such changes after GSCP.
155. The coordinating/managing entity may request the DOE to withdraw the published PoA-DD before the submission of a request for registration of the proposed CDM PoA in accordance with the “CDM project cycle procedure for programmes of activities	Not applicable
156. The coordinating/managing entity may request the DOE to withdraw the request for registration in accordance with the “CDM project cycle procedure for programmes of activities”.	Not applicable
157. The coordinating/managing entity or the project participants may change the DOE after the publication of the PoA-DD in accordance with the “CDM project cycle procedure for programmes of activities”.	Not applicable

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
6. General validation and verification requirements 6.1. General validation and verification approach 18. The DOE shall select a competent team to perform the validation or verification for the CDM PoA or CPA	Appendix 2 of this report describes about the competency of the validation team.
19. In carrying out its validation or verification work, the DOE shall: (a) Follow this standard and integrate its provisions into the DOE's own quality management systems; (b) Apply the most recent applicable decisions and guidance provided by the Board; (c) Determine whether each CDM PoA or CPA meets all applicable CDM rules and requirements, including those specified in the "CDM project standard for programmes of activities", the selected methodologies, the selected standardized baselines and any other standards, methodologies, methodological tools and guidelines applied in accordance with the selected methodologies (hereinafter "any other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the selected(applied) methodologies" are collectively referred to as the other (applied) methodological regulatory documents); (d) Assess the accuracy, conservativeness, relevance, completeness, consistency and transparency of the information provided by the coordinating/managing entity; (e) Determine whether information provided by the coordinating/managing entity is reliable and credible (f) Apply consistent validation/verification criteria: (i) To the requirements of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents throughout the crediting period(s); (ii) To CDM PoAs with similar characteristics such as a similar application of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, use of technology, time period or region; (iii) To expert judgements, over time and among CDM PoAs or CPAs; (g) Base its findings and conclusions on objective evidence and conduct all validation or verification activities in accordance with CDM rules and requirements; (h) Not omit evidence that is likely to alter the validation or verification opinion	The validation team has referred the latest versions of PS-PoA^{/1/} v2.0, PCP-PoA^{/1/} v2.0 and VVS-PoA^{/1/} v2.0. The validation team determined checked if POA meeting all the applicable CDM rules. The validation team checked if the information provided by the CME is reliable and credible based crosschecking of the documents with independent third party documents. The validation team applied consistent validation criteria throughout the validation of POA. The team members of the validation team is bound by confidentiality clause.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
(i) Present information in the validation report or verification and certification report in a factual, neutral and coherent manner and document all assumptions, provide references to background material, and identify changes made to the documentation; (j) Safeguard the confidentiality of all information obtained or created during the validation or verification	
6.2. Use of and compliance with applicable standards 20. In carrying out its validation and verification work, the DOE shall use and determine the compliance with the valid version of applicable standards, methodologies, standardized baselines, methodological tools, guidelines and other regulatory documents adopted by the CMP or the Board	The validation team has referred the latest versions of PS-PoA ^{/1/} v2.0, PCP-PoA ^{/1/} v2.0, VVS-PoA ^{/1/} v2.0, applied methodology and its associated tools. The validation team determined checked if POA meeting all the applicable CDM rules.
6.3. Use of applicable forms 21. The DOE contracted to conduct validation for registration of a proposed CDM PoA, post-registration changes, renewal of PoA period of a registered CDM PoA, or inclusion of CPAs in a registered CDM PoA shall prepare a validation report using the valid version of the relevant validation report form.	Atmosfair (PP) has signed an agreement with EPIC, the scope being validation of PoA. The validation team has used the latest validation report form (version 3.0).
22. The DOE contracted to conduct verification and certification for the implementation of the registered CDM PoA or included CPAs and monitored greenhouse gas (GHG) emission reductions or net anthropogenic GHG removals shall prepare a verification and certification report using the valid version of the relevant verification and certification report form.	Atmosfair (PP) has signed an agreement with EPIC, the scope being validation of PoA. Hence this is not applicable.
23. When completing a validation or verification and certification report form, the DOE shall follow the instructions therein	The validation team has followed the instructions therein the validation report form template v3.0.
6.4. Use of applicable global warming potentials 24. The DOE shall determine whether the global warming potentials (GWPs) were correctly applied in the PoA-DD, the CPA-DD and in the monitoring report in accordance with relevant requirements in the "CDM project standard for programmes of activities	GWP of CO ₂ /CH ₄ is 1 and 25 respectively. This is true as per decision 4/CMP.7. No other GHG gases are applicable for this POA.
7. Validation for registration of programmes of activities 7.1. General validation requirements 7.1.1. Objectives of validation 25. The DOE shall conduct a thorough and independent assessment of a proposed CDM PoA against the applicable CDM rules and requirements.	This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to the Kyoto Protocol, the CDM rules and modalities as agreed in the Bonn Agreement, the Marrakech Accords and the CDM Executive Board's decisions. The assessment is objective and independent.
7.1.2. Validation approach 26. In carrying out its validation work, the DOE shall: (a) Determine whether the proposed CDM PoA complies with the requirements in paragraph 37 of the CDM M&Ps (with the exception of paragraph 37(c) for CCS CDM project activities), the applicability conditions of the selected	The validation team has confirmed that the PoA is meeting all the applicable conditions of the applied methodology and its associated tools. Refer Appendix 5 of this report for details.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
methodologies, the selected standardized baselines, the other applied methodological regulatory documents and guidance provided by the Board; (b) Assess the claims and assumptions in the PoA-DD. The evidence used in this assessment shall not be limited to that provided by the coordinating/managing entity.	
27. The DOE shall make publicly available the PoA-DD received from the coordinating/ managing entity in accordance with the “CDM project cycle procedure for programme of activities	PoA-DD is published for GSCP on 22nd June 2019, but there is no comments.
7.1.3. Means of validation 7.1.3.1. Standard auditing techniques 28. The DOE shall assess the information provided by the coordinating/managing entity	The validation assessment is based on the information provided by CME. The validation team has also considered third party information for crosschecking.
29. In assessing the information, the DOE shall apply the means of validation specified throughout this standard and, where appropriate, standard auditing techniques, including, but not limited to: (a) Document review, involving: (i) A review of data and information; (ii) Cross checks between information provided in the PoA-DD and information from sources other than those used; if available, the DOE's sectoral or local expertise; and, if necessary, independent background investigations; (b) Follow-up actions (e.g. on-site inspection and telephone or e-mail interviews), including: (i) Interviews with relevant stakeholders in the host country, such as personnel with knowledge of the PoA design and implementation; (ii) Cross checks between the information provided by interviewed personnel (i.e. by checking sources or other interviews) to ensure that no relevant information has been omitted; (c) Reference to available information relating to programme, projects or technologies similar to the proposed CDM PoA under validation; (d) Review, based on the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, of the appropriateness of formulae and accuracy of calculations (e) Sampling approach in accordance with the “Standard: Sampling and surveys for CDM project activities and programme of activities”, including: (i) A random sampling for cases where the coordinating/managing entity did not apply a sampling approach; (ii) An acceptance sampling or another sampling	The validation assessment is based on document review, cross checks with third party information, interviews, and similar CDM POA projects. The validation team did not use Sampling standard as it was not required for the validation.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
approach for cases where the coordinating/managing entity applied a sampling approach	
30. Where no specific means of validation is specified, the DOE shall apply the standard auditing techniques described in paragraph 29 above	The validation team has used standard auditing principles and used professional judgment for the assessment.
7.1.3.2. Corrective action requests, clarification requests and forward action requests 31. If the DOE identifies issues that require further elaboration, research or expansion in order to determine whether the PoA meets the CDM rules and requirements and can achieve credible GHG emission reductions or net anthropogenic GHG removals, the DOE shall ensure that these issues are accurately identified, formulated, discussed and concluded in the validation report	The validation team has identified issues and these are concluded (Refer Appendix 4 of this report).
32. The DOE shall raise a corrective action request (CAR) if one of the following situations occurs: (a) The coordinating/managing entity have made mistakes that will influence the ability of the proposed CDM PoA to achieve real, measurable, verifiable and additional GHG emission reductions or net anthropogenic GHG removals; (b) The applicable CDM rules and requirements have not been met; (c) There is a risk that GHG emission reductions or net anthropogenic GHG removals cannot be monitored or calculated	The validation team has identified CARs and these are concluded (Refer Appendix 4 of this report).
33. The DOE shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM rules and requirements have been met	The validation team has identified CLs and these are concluded (Refer Appendix 4 of this report).
34. The DOE shall raise a forward action request (FAR) during validation to identify issues related to programme implementation that require review during the first verification of the proposed CDM PoA. The DOE shall not raise a FAR that relates to the CDM rules and requirements for registration of the PoA	The validation team has not identified FARs for this validation. (Refer Appendix 4 of this report).
35. The DOE shall resolve or “close out” CARs and CLs only if the coordinating/managing entity modifies the PoA design, rectifies the PoA-DD, or provides additional explanations or evidence that satisfy the DOE’s concerns. If this is not done, the DOE shall not submit a request for registration of the proposed CDM PoA	The validation team has identified CARs and these are concluded (Refer Appendix 4 of this report).
36. The DOE shall report on all CARs, CLs and FARs in its validation report. This reporting shall explain the issues raised, the responses provided by the coordinating/managing entity, the means of validation of such responses and references to any resulting changes in the PoA-DD or supporting annexes	The validation team has identified CARs/CLs/FARs and these are concluded (Refer Appendix 4 of this report).
7.2. Identification of programme type 37. The DOE shall determine and state its opinion on whether the proposed CDM PoA will include only non-A/R CPAs or A/R CPAs	CME used small scale non-A/R CPAs. A/R CPAs are not applicable.
7.3. Description of programme of activities	The validation team has checked the section A.1 of

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
38. The DOE shall assess the PoA-DD submitted by the coordinating/managing entity and shall confirm: (a) The framework developed for the implementation of the proposed CDM PoA; (b) The policy/measure or stated goal that the PoA seeks to promote; (c) That the PoA is a voluntary action by the coordinating/managing entity	PoA-DD and wherein framework developed for the implementation of the PoA, policy/stated goals of POA is specified. Hence accepted by the validation team
39. The DOE shall assess the boundary of the proposed CDM PoA in terms of geographical area (e.g. municipality, region within a country, country or several countries) within which all CPAs to be included in the PoA will be implemented	Host country is India. All CPA will confine to India (host country) only.
40. The DOE shall determine whether, in establishing the boundary of the proposed CDM PoA, the coordinating/managing entity has taken into consideration all applicable national and/or sectoral policies and regulations within the chosen boundary	Each CPA will confine to India (host country) only. The validation team has considered all applicable rules to establish the boundary.
41. The DOE shall confirm that a generic CPA part of the PoA-DD (hereinafter referred to as generic CPA-DD) has been prepared for each technology/measure, each methodology and each combination thereof, or that technologies/measures have been combined in one generic CPA-DD in accordance with the relevant requirements in the "CDM project standard for programmes of activities	The validation team based on the review of PoA-DD, has confirmed the PoA contains 3 generic CPAs. The description of the same is briefed below. Generic CPA no 1: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{3/}. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.I.E v9.0^{3/}. Generic CPA no 2: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
	and consumption of conventional charcoal. The emission reduction from this activity is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. Generic CPA no 3: This aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this activity is calculated using the applied methodology AMS.II. G v10.0^{/3/}. In this generic CPA, the charcoal may or may not be generated from the improved cook stoves. Even charcoal is generated, it would not be supplied to the charcoal users/ retailers. So no emission reduction would be claimed under AMS.III.BG. v3.0^{/3/}. In this generic CPA, the households may or may not be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. So no emission reduction would be claimed under AMS.I.E v9.0^{/3/}. The validation team has mentioned the technologies to be employed in the each generic CPAs under corresponding sections (part II) of generic CPA.
42. The DOE shall determine whether the description of the proposed CDM PoA in the PoA-DD is accurate and complete and whether it provides an understanding of the PoA.	The description of the PoA is accurate and complete. There are 3 generic CPAs defined by the CME in the PoA-DD.
43. The DOE shall: (a) Describe the process undertaken to validate the accuracy and completeness of the description in the PoA-DD; (b) State its opinion on the accuracy and completeness of the description in the PoA-DD.	The validation team has reviewed the section A.1 and A.3 of the POA-DD and therefore confirming its accuracy and completeness.
7.4. Management system 44. The DOE shall assess and state its opinion on whether the management system described in the PoA-DD is in accordance with the "CDM project standard for programmes of activities"	Role of Nature Club of Rajasthan (CME), atmosphere (specified as PP) and Sapient Infotech (stove maker/distributor) is mentioned in the POA-DD.
7.5. Demonstration of additionality of programme of activities 45. The DOE shall assess and state its opinion on whether the additionality of the proposed CDM PoA was demonstrated in accordance with the "CDM project standard for programme of activities"	In the absence of the PoA, no CPA that is planned to be included would occur as CME/PP is responsible for the funding. CME has defined conditions for demonstrating additionality of CPAs under eligibility criteria for inclusion of the CPAs. Refer Appendix 6 and 7 of this report for details.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
7.6. Start date and duration of programme of activities 46. The DOE shall determine whether the start date and duration of a proposed CDM PoA comply with the relevant provisions in the "CDM project standard for programmes of activities"	The validation team notified to the CDM secretariat about the intention to seek CDM status of the POA on 7th June 2018. The review of CDM website^{/5/} confirms the same. https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html The validation team notified to the host country DNA CDM secretariat on the same day. The validation team has checked the email confirmation^{/5/}.
47. If the coordinating/managing entity, for the purpose of determining the start date of the proposed CDM PoA, has chosen to notify the DNA(s) of the host Party(ies) of the PoA and the secretariat in writing of the intention to seek the CDM status of the PoA, the DOE shall confirm whether the start date indicated in the PoA-DD is the date of the notification of the intention by referring to the list of prior consideration notifications from the UNFCCC CDM website and communication between the coordinating/managing entity, the secretariat and the host Party DNA(s), if the DNA(s) exist(s).	The validation team has observed that the CME notified to the secretariat about the intention to seek CDM status of the PoA.. The validation team has checked the website and confirmed that prior consideration letter has been sent by the CME. https://cdm.unfccc.int/Projects/PriorCDM/notifications/index_html
48. If the coordinating/managing entity has chosen the date of publication of the PoA-DD for global stakeholder consultation as the start date of the proposed CDM PoA, the DOE shall confirm whether the start date indicated in the PoA-DD is the date of the publication of the PoA-DD by referring to the UNFCCC CDM website.	As per PoA-DD, CME has notified about intention to seek CDM status. As per Glossary of CDM terms^{/4/} v10.0, this is taken as start date (7th June 2018).
49. The DOE shall confirm that the duration of the proposed CDM PoA as specified in the PoA-DD does not exceed 28 years (60 years for the proposed CDM A/R PoA).	Duration of the PoA is 28 years. The validation team reviewed the PoA-DD and accepted the same.
50. The DOE shall describe the steps taken to assess and state its opinion on the compliance of the start date and duration specified in the PoA-DD with the relevant requirements in the "CDM project standard for programmes of activities"	As per PoA-DD, CME has notified about intention to seek CDM status. As per Glossary of CDM terms v10.0^{/4/}, this is taken as start date (7th June 2018). Since this is non A/R PoA, duration is 28 years only.
7.7. Environmental impacts 51. The DOE shall determine whether the coordinating/managing entity conducted an analysis of the environmental impacts of the proposed CDM PoA for the whole PoA or will be carried out at the CPA level, including transboundary impacts, and whether those impacts are considered significant by the coordinating/managing entity or by the host Party	As per PoA-DD^{/2/}, it would be demonstrated at the PoA level. Hence accepted.
52. If the analysis of environmental impacts and, if applicable, the environmental impact assessment was(were) undertaken for the whole PoA, the DOE shall determine whether: (a) The analysis and, if applicable, the assessment was(were) conducted as described in the PoA-DD; (b) The coordinating/managing entity conducted an environmental impact assessment, if considered significant by the coordinating/managing entity or by the host Party, in accordance with the host Party's procedures	Demonstration of whether EIA is required or not for the project is conducted at PoA level. The validation team has reviewed the Schedule 1 of the EIA notification^{/6/} 2006, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986. As per this notification, the PoA doesn't fall under the list of activities requiring EIA. The validation team concludes that the environmental impact by the project activity need not be assessed by the PP/CME. The project activity does not cause adverse environmental impacts and there are no regulations in the host country, India to conduct the EIA for the project activity. The same is confirmed from the EIA notification 2006. (http://moef.nic.in/legis/eia/so1533.pdf).

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
53. The DOE shall assess the above requirements by means of a document review and/or using local official sources and expertise.	The validation team has reviewed the EIA notification 2006 and accepted that EIA is not required for cookstove projects.
54. The DOE shall state whether the analysis of environmental impacts and if applicable an environmental impact assessment was conducted for the whole PoA or will be conducted at the CPA level.	The validation team has reviewed the EIA notification 2006 and accepted that EIA is not required for a cookstove projects.
55. If the DOE determines that the analysis of environmental impacts was conducted for the whole PoA, and, if considered significant by the coordinating/managing entity or by the host Party, it shall state whether the analysis was conducted as described in the PoA-DD and if applicable, an environmental impact assessment was conducted in accordance with procedures as required by the host Party	As per POA-DD, it would be demonstrated at the POA level. Hence accepted.
7.8. Socio-economic impacts 56. For a proposed A/R CDM PoA, the DOE shall state whether the analysis of socio-economic impacts and, if applicable, a socio-economic impact assessment was conducted for the whole PoA or will be conducted at the CPA level	As per POA-DD, it would be demonstrated at the PoA level. There is no negative impact on social or economic aspect from the PoA. Hence accepted.
57. If the DOE determines that the analysis of socio-economic impacts was conducted for the whole PoA, and, if considered significant by the coordinating/managing entity or by the host Party, it shall state whether the analysis was conducted as described in the PoA-DD, and if applicable, a socio-economic impact assessment was conducted in accordance with the relevant procedures of the host Party.	As per POA-DD, it would be demonstrated at the POA level. Hence accepted.
7.9. Local stakeholder consultation 58. The DOE shall determine whether the local stakeholder consultation was carried out for the whole PoA or at the CPA level.	As per PoA-DD, it would be demonstrated at the CPA level. Hence not applicable. The validation team has reviewed the relevant section in the PoA, where the modalities of local stakeholder consultation meeting is detailed briefly. Hence accepted.
59. The DOE shall determine whether the consultation was carried out in accordance with the relevant requirements in the "CDM project standard for programmes of activities	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
60. The DOE shall determine whether there are applicable host Party rules on local stakeholder consultation. Where such rules exist, the DOE shall, by means of document review and interviews with local stakeholders and/or the DNA, as appropriate, determine whether the local stakeholder consultation was conducted in accordance with the rules	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
61. If applicable host Party rules on local stakeholder consultation do not exist, the DOE shall, by means of document review and interviews with local stakeholders and/or the DNA as appropriate, determine whether the local stakeholder consultation was conducted in accordance with the requirements in the "CDM project standard for programmes of activities" related to: (a) Scope of local stakeholder consultation; (b) Minimum group of stakeholders to be involved;	As per POA-DD, it would be demonstrated at the CPA level. LSC of each CPA would be conducted before its start date. Hence accepted.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
(c) Means for inviting stakeholders' participation; (d) Information to be made available to stakeholders; (e) Conduct of consultation; (f) Summary of comments received; (g) Consideration of comments received; (h) Timing of local stakeholder consultation.	
62. If the DOE used interviews with local stakeholders and/or the DNA as a means of validation as referred to in paragraphs 60 and 61 above, and if the local stakeholders and/or the DNA provided no response to the DOE's request for an interview within 14 days of the request being made, the DOE may proceed with the information available	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
63. If the DOE, after the completion of the local stakeholder consultation, receives complaints from local stakeholders on the handling of the outcome of the consultation forwarded by the DNA in accordance with the "CDM project cycle procedure for programme of activities", it shall promptly forward them to the coordinating/managing entity and thereafter determine whether the coordinating/managing entity have duly taken them into account. The DOE may proceed with the validation with the complaints received within 14 days of the request for forwarding, if any	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
64. The DOE shall determine whether changes to the PoA-DD are made after the local stakeholder consultation. If the DOE identifies such changes, it shall assess whether: (a) The comments received through the local stakeholder consultation are still valid; (b) The scope of the local stakeholders engaged is still valid	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
65. If significant changes to the PoA design occurs after the local stakeholder consultation, the DOE shall determine whether a new local stakeholder consultation was conducted with relevant stakeholders in accordance with paragraphs 60 and 61 above	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
66. The DOE shall: (a) Describe the steps taken to assess the adequacy of the local stakeholder consultation; (b) State its opinion on the adequacy of the local stakeholder consultation	As per POA-DD, it would be demonstrated at the CPA level. Hence accepted.
7.10. Sustainable development co-benefits 67. The DOE shall state whether a document describing how the coordinating/managing entity intends to monitor the sustainable development co-benefits of the proposed CDM PoA was developed by the coordinating/managing entity separately from the monitoring plan	CME mentioned the environmental and social – economic benefits of the POA in the section A.1 of PoA-DD. But it intends not to monitor separately. Since this is not a mandatory requirement, the validation team has accepted it.
7.11. Approval and authorization 7.11.1. Approval 68. The DOE shall determine whether the	There are two parties involved in this PoA. Host party is India and other party involved is Germany. Nature Club of Rajasthan, the CME, has obtained

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
designated national authority (DNA) of each Party indicated in the PoA-DD as being involved in the proposed CDM PoA has provided a written letter of approval.	LOA letters ^{/8/} from both the parties.
69. The DOE shall determine whether each letter provided by the DNA of each Party involved in the proposed CDM PoA confirms that: (a) The Party is a Party to the Kyoto Protocol; (b) The participation in the PoA is voluntary; (c) In the case of the host Party, the PoA contributes to achieving the sustainable development of the country; (d) It refers to the precise title of the PoA in the PoA-DD being submitted for registration (i.e. there shall be no difference between the title in the letter and that in the PoA-DD).	There are two parties involved in this PoA. Host party is India and other party involved is Germany. Nature Club of Rajasthan, the CME, has obtained LOA letters ^{/8/} from both the parties as below. Indian DNA: Ministry of Environment, Forest and Climate Change (DNA of India) issued LoA (Ref no: 13008/81/2017-CC dated on 15 th April 2019 wherein the following was confirmed. 1. India is party to the Kyoto protocol. India ratified the protocol in August 2002. 2. The participation of the DNA in the proposed CDM PoA is voluntary 3. The LoA refers to the precise title of the proposed PoA. German DNA: The Federal Environment Agency (DNA of Germany) issued LoA ^{/8/} dated on 19 th August 2019 wherein the following was confirmed. 1. Germany is party to the Kyoto protocol. 2. The participation of the DNA in the proposed CDM PoA is voluntary 3. The LoA refers to the precise title of the proposed PoA.
70. The DOE shall determine whether the letter of approval is unconditional with respect to paragraph 69(a)–(d) above	The validation team has reviewed the LOAs ^{/8/} and all clauses are found to be unconditional.
71. The DOE shall determine whether the letter of approval has been issued by the respective Party's DNA and is valid for the proposed CDM PoA under validation	Indian DNA, in its LoA letter ^{/8/} as above, has authorised Nature Club of Rajasthan, the CME to participate in the PoA. German DNA, in its LoA letter ^{/8/} as above, has authorised the CME to participate in the PoA. German DNA, in its LoA letter ^{/8/} as above, has authorised Atmosfair, the PP to participate in the PoA.
72. If the DOE doubts the authenticity of the letter of approval, it shall verify with the DNA that the letter of approval is authentic	The validation team has checked the original LOAs and found to be authentic.
73. The DOE shall, for each Party involved: (a) Indicate whether a letter of approval has been received, referencing the letter itself and any supporting documentation; (b) Indicate whether the DOE received the letter of approval from the coordinating/managing entity or directly from the DNA; (c) Indicate the means of validation employed to assess the authenticity of the letter of approval if paragraph 72 above applies;	There are two parties involved in this PoA. Host party is India and other party involved is Germany. Nature Club of Rajasthan, the CME, has obtained LOA letters from both the parties as below. Indian DNA: Ministry of Environment, Forest and Climate Change (DNA of India) issued LoA (Ref no: 13008/81/2017-CC dated on 15 th April 2019 German DNA: The Federal Environment Agency (DNA of Germany)

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
(d) Include a statement on whether the letter of approval meets the requirements referred to in paragraphs 69–72 above, as applicable	issued LoA dated on 19th August 2019 The validation team has received the LOAs from Atmosfair, the PP. Based on the review of LoAs, the validation team confirms that LoAs meets the requirements of referred to in paragraphs 69–72 of VVS-PoA v2.0.
74. If the letter of approval refers to a specific version of the validation report and the DOE therefore is unable to submit this precise version of the validation report, the DOE shall: (a) Insert a statement in the validation report to indicate that the final letter of approval has not been received and that a request for registration will not be submitted until it has been received; or (b) Update the validation report to reflect the receipt of the letter of approval. If this option is selected, the whole number of the version number of the validation report shall remain unchanged and the tens decimal place shall be increased (e.g. from 1.0 to 1.1). The DOE shall confirm in the validation report that the confirmation of the receipt of the letter of approval is the only change that has been made to the version referred to in the letter of approval	LoAs did not specify any version of validation report. Hence the condition not applicable.
7.11.2. Authorization 75. The DOE shall determine whether each project participant of the proposed CDM PoA has been authorized to participate in the PoA by at least one Party involved in the letter of approval referred to in paragraph 68 above, or in a separate authorization letter	German DNA, in its LoA letter ^{/8/} as above, has authorised Atmosfair, the PP to participate in the PoA.
76. The DOE shall determine whether the coordinating/managing entity has been authorized to coordinate the proposed CDM PoA by each host Party involved in the PoA	There are two parties involved in this PoA. Host party is India and other party involved is Germany Indian DNA, in its LoA letter^{/8/} as above, has authorised Nature Club of Rajasthan, the CME to participate in the PoA. German DNA, in its LoA letter^{/8/} as above, has authorised the CME to participate in the PoA.
77. The DOE shall confirm that the coordinating/managing entity and the project participants of the proposed CDM PoA are listed in the PoA-DD and that this information is consistent with the information provided in the section that contains the contact information of the coordinating/managing entity	The validation team has reviewed the PoA-DD ^{/2/} wherein CME and PP are listed in the PoA-DD and that this information is consistent with the information provided in the section that contains the contact information of the CME.
78. The DOE shall confirm that no entities other than those authorized as the coordinating/managing entity and the project participants of the proposed CDM PoA are included in these sections of the PoA-DD	Only authorised entities (the CME and the PP) are included in the PoA-DD.
79. The DOE shall confirm that the authorization has been issued from the relevant DNA, and if in doubt, shall verify with the DNA that the authorization is valid for the coordinating/managing entity and the project participants of the proposed CDM PoA	The validation team has reviewed the CDM website ^{/8/} https://cdm.unfccc.int/DNA/index.html and confirmed that DNA of parties giving approval is correct.
80. The DOE shall, for the coordinating/managing entity and each project participant of the proposed CDM PoA:	Indian DNA, in its LoA letter^{/8/} as above, has authorised Nature Club of Rajasthan, the CME to participate in the PoA. German DNA, in its LoA letter^{/8/} as above, has

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
(a) Indicate whether the participation has been authorized by a Party to the Kyoto Protocol;	authorised the CME to participate in the PoA.
(b) Describe the means of validation used to support the conclusions	German DNA, in its LoA letter ^{/8/} as above, has authorised Atmosfair, the PP to participate in the PoA.
7.12. Modalities of communication 7.12.1. General 81. The DOE shall validate the corporate identity of all project participants, the coordinating/managing entity and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories	The validation team has reviewed the MOC ^{/9/} and observed the following. The title in matching with that of the PoA-DD. The MoC ^{/9/} was signed on 3 rd Sep 2019. The validation team has reviewed the MoC wherein designation of a focal point for each scope of authority, contact details and specimen signatures of the authorized signatories of each focal point entity is observed. The signature of an authorized signatory of the CME confirming its agreement with the MoC statement.
82. The DOE shall validate the identities referred to in paragraph 81 above through: (a) Directly checking evidence of corporate and personal identities and other relevant documentation; (b) Notarized documentation; or (c) Written confirmation from the coordinating/managing entity that submits the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate	The validation team has validated the identities through written confirmation ^{/9/} from the CME and atmosfair.
83. When the DOE validates the identities by applying paragraph 82(c) above, the DOE shall ensure that the MoC statement is received from the coordinating/managing entity	The validation team has received the MOC ^{/9/} from the CME and atmosfair.
84. When the DOE validates the identities by applying paragraph 82(c) above, the DOE shall ensure that the official who submits the MoC statement to the DOE and the official who signed the written confirmation (if a different person) are duly authorized to do so on behalf of the coordinating/managing entity	The validation team has confirmed that officials who signed the MOC are duly authorised by the respective entities.
85. If the DOE is unable to validate the requirements by applying paragraph 82(a), (b) or (c) above, the DOE may perform further validation activities in order to confirm that the corporate and personal details, employment status and specimen signatures included in the MoC statement are valid and accurate, and comply with the requirements in this section	The validation team has confirmed that officials who signed the MOC are duly authorised by the respective entities.
86. The DOE shall state that it has performed due diligence on the MoC statement in accordance with the requirements in this section	The validation team has confirmed that officials who signed the MOC are duly authorised by the respective entities.
7.12.2. Modalities of the communication statement 87. The DOE shall validate that the MoC statement has been correctly completed and duly authorized	The validation team has confirmed that MOC is correctly filled in and duly signed by the authorised officials
88. The DOE shall check that: (a) The valid version of the form "Modalities of Communication statement" (CDM-MOC-FORM) has been used;	CME has used valid version and all sections are duly filled in.

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(b) The information required as per the CDM-MOC-FORM, including its annex 1, is correctly completed; (c) The project participants' authorized signatories signing the CDM-MOC-FORM correspond to the project participants' authorized signatories included in the CDM-MOC-FORM, annex 1.	
89. The DOE shall state that the MoC statement was completed and duly authorized in accordance with the valid version of the form and the information required therein	The validation team has confirmed that MOC is correctly filled in and duly signed by the authorised officials
7.13. Generic component project activity 7.13.1. General description of generic component project activity 90. The DOE shall determine whether the description of the generic CPA(s) in the PoA-DD is accurate, complete, and provides an understanding of the generic CPA(s).	For all the three generic CPAs: The validation team has reviewed the PoA-DD and accepted the description as accurate, complete and provides an understanding of the generic CPAs.
91. The DOE shall: (a) Describe the process undertaken to validate the accuracy and completeness of the description of the generic CPA(s); (b) Provide an opinion on the accuracy and completeness of the generic CPA(s) description	The validation team has interviewed the CME, PP and Sapient Infotech (project cookstove assembler) and reviewed the section A.1 and A.3 of the PoA-DD and therefore confirming its accuracy and completeness.
7.13.2. Selection of methodologies and standardized baselines 7.13.2.1. General 92. The DOE shall apply specific guidance and/or clarifications provided by the Board with respect to the approved methodologies, standardized baselines and other methodological regulatory documents that are selected by the coordinating/managing entity	The validation team has referred all the clarifications provided by the board applicable to the methodology.
7.13.2.2. Deviation from methodologies and/or methodological tools 93. The DOE may seek guidance from the Board on the acceptability of a deviation from a selected approved methodology or methodological tool prior to the submission of a request for registration or publication of the PoA-DD, if the DOE, when performing validation for the proposed CDM PoA, or upon request from the coordinating/managing entity before the publication of the PoA-DD, finds that, due to a PoA-specific⁷ issue implying that a revision of the methodology and/or methodological tool would not be required to address the issue, the coordinating/managing entity deviated from: (a) The selected methodology or methodological tool; or (b) Sections in the selected methodology or methodological tool that are not standardized by the selected standardized baselines, if the proposed generic CPA applies standardized baselines	There is not request for deviation. Hence this is not relevant.
94. The DOE shall submit to the Board an assessment of the case including demonstration that the deviation does not require revision of the selected methodology or methodological tool, and shall include a description of the impact of the deviation on GHG emission reductions or net anthropogenic GHG removals by the proposed	There is not request for deviation. Hence this is not relevant.

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generic CPA in accordance with the "CDM project cycle procedure for programmes of activities"	
95. Alternatively, if the DOE considers that a revision of the selected methodology or methodological tool would be required to address the programme situation, then the DOE shall request the coordinating/managing entity to submit a request for revision in accordance with the "CDM project cycle procedure for programmes of activities".	There is not request for deviation. Hence this is not relevant.
7.13.2.3. Clarification on applicability of methodology, tool and/or standardized baseline 96. If the DOE cannot determine the applicability of a selected methodology, methodological tool and/or standardized baseline to the proposed generic CPA, the DOE shall request a clarification on the applicability in accordance with the "Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools" and/or the "Procedure: Development, revision, clarification and update of standardized baselines". The DOE shall conduct an assessment to ensure that the request is not submitted with the intention of revising the selected methodology, methodological tool and/or standardized baseline to expand their applicability	There is not request for clarification. Hence this is not relevant.
7.13.3. Application of methodologies and standardized baselines 7.13.3.1. General 97. The DOE shall validate that the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents are applicable to the design of the proposed generic CPA and that the selected versions are valid at the time of submission of the proposed CDM PoA for registration	Generic CPA 1: CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100 (latest). AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79 (latest) AMS-I.E.Switch from non-renewable biomass for thermal applications by the user --- Version 9.0 adopted at EB100.(latest) Generic CPA 2: CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100(latest). AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79 (latest). Generic CPA 3: CME used methodology AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100 (latest). Hence accepted by the validation team. Refer Appendix 5 of this report for how each applicable conditions of the methodologies are satisfied in detail. The selected methodology is correctly applied.

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98. The DOE shall determine whether the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents were correctly applied with respect to the following: (a) Project boundary; (b) Baseline identification; (c) Algorithms and/or formulae used to determine emission reductions; (d) Additionality; (e) Monitoring methodology	<u>a.Project boundary</u> For all the three generic CPAs: The validated team has reviewed the PoA-DD^{/2/} under relevant section project boundary and accepted the source and sink of the CPAs. Scenario mentioned in the relevant sections (under project boundary section and baseline section for each generic CPA) is consistent. <u>b.Baseline identification:</u> For all the three generic CPAs: The baseline was pre-defined the applied methodologies. Generic CPA no 1: This CPA involves three components namely Type 2 (energy efficiency), type 3 (sustainable charcoal production and consumption) and Type 1 (replacing non-renewable biomass with renewable biomass). The baselines for each component is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0, It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households use fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario. Type 3 component: As per para 19 & 20 of AMS.III.BG v3.0, for the charcoal portion produced from non-renewable biomass in the baseline, it is assumed that in the absence of the project activity, the baseline scenario would be the future use of fossil fuels for meeting similar thermal energy needs. For the charcoal portion produced from renewable biomass in the baseline, traditional open-ended methods resulting in methane emitted to the atmosphere forms the baseline scenario. The component aims at replacing conventional charcoal used by different consumers who use conventional charcoal produced from unsustainably harvested fuelwood. Hence forms the baseline. CER

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	will only be claimed for charcoal generated as a by-product in cooking in project cookstove for which ER are also claimed under AMS-II.G. Another element of the baseline scenario of this component consists in methane generation from traditional open-ended charcoal production methods for conventional charcoal replaced by the CPA. As per para 20 and 21 of AMS.III.BG v3.0, methane generation is considered for the portion of charcoal produced from the fraction of biomass deemed renewable only. Hence accepted by the validation team. Type 1 component: As per para 19 of AMS.I.E v9.0, It is assumed that in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs. The baseline consists in the use of conventional fuelwood in the project cookstoves. ER will only be claimed for the use of renewable biomass in project cookstove that are distributed under the PoA. Generic CPA no 2: This CPA involves two components namely Type 2 (energy efficiency), type 3 (sustainable charcoal production and consumption). The baselines for each component is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0, It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households uses fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario. Type 3 component: As per para 19 & 20 of AMS.III.BG v3.0, for the charcoal portion produced from non-renewable biomass in the baseline, it is assumed that in the absence of the project activity, the baseline scenario would be the future use of fossil fuels for meeting similar thermal energy needs. For the charcoal portion produced from renewable biomass in the baseline, traditional open-ended methods resulting in methane emitted to the atmosphere forms the baseline scenario. The component aims at replacing conventional

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	charcoal used by different consumers who use conventional charcoal produced from unsustainably harvested fuelwood. Hence forms the baseline. CER will only be claimed for charcoal generated as a by-product in cooking in project cookstove for which ER are also claimed under AMS-II.G. Another element of the baseline scenario of this component consists in methane generation from traditional open-ended charcoal production methods for conventional charcoal replaced by the CPA. As per para 20 and 21 of AMS.III.BG v3.0, methane generation is considered for the portion of charcoal produced from the fraction of biomass deemed renewable only. Hence accepted by the validation team. Generic CPA no 3: This CPA involves one component namely Type 2 (energy efficiency). The baseline for the component involved is validated below. Type 2 component: As per para 21 of AMS.II.G v10.0, It is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. The validation team has confirmed that targeted baseline households uses fuelwood using in traditional stoves (efficiency being 10%) without proper combustion air supply, grate or chimney. Hence the baseline therefore forms the consumption of fuel wood using traditional stoves. Since performance of LPG stoves and kerosene stoves are superior to traditional cook stoves, these cannot be part of baseline scenario. <u>c.Emission reduction and monitoring plan:</u> This requirements of emission reduction calculation and monitoring plan for each generic CPA is detailed Appendix 8 of this report <u>d.Additionality:</u> CME has defined conditions for demonstrating additionality of CPAs under eligibility criteria for inclusion of the CPAs. Refer D.2.5 of this report for details. <u>e.Monitoring plan</u> This requirements of emission reduction calculation and monitoring plan for each generic CPA is detailed Appendix 8 of this report
99. The DOE shall determine whether the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents are correctly quoted and applied by comparing them with the actual text of the valid version of these documents, and relevant requirements in the "CDM project standard for	The selected methodology/tools are correctly quoted and applied for each CPA.

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programmes of activities”.	
100. If the generic CPA is based on a previous versions of a methodology or a standardized baseline and the PoA-DD was published for global stakeholder consultation but was not submitted for registration within the grace period for applying the later version, the DOE shall request the coordinating/managing entity to provide a revised PoA-DD in accordance with the “CDM project cycle procedure for programmes of activities”.	CME has used the latest and valid version of the applied methodology in the webhosted PoA-DD.
101. The DOE shall request the coordinating/managing entity to provide a revised PoA-DD in accordance with the “CDM project cycle procedure for programmes of activities” if: (a) The PoA-DD has been published for global stakeholder consultation when no applicable approved standardized baseline was valid; (b) An applicable approved standardized baseline whose selection is mandatory has become valid after the publication of the PoA-DD for global stakeholder consultation but before the submission of a request for registration of the proposed CDM PoA; (c) The request for registration has not been submitted within 240 days after the standardized baseline became valid	No standardised baseline was used in the PoA-DD. Hence the condition is not applicable.
102. The DOE shall determine whether the proposed generic CPA meets all the applicability conditions of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents. This shall be done by validating the documentation referred to in the PoA-DD and by verifying that the documentation content is correctly quoted and interpreted in the PoA-DD. If the DOE, based on local and sectoral knowledge, is aware that comparable information is available from credible sources other than that used in the PoA-DD, then the DOE shall cross-check the PoA-DD against other sources to confirm that the generic CPA meets the applicability conditions of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents.	Refer Appendix 5 of this report for details. The selected methodology is correctly applied. But other conditions from tools referred are demonstrated in the POA-DD.
103. For each applicability condition listed in the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, the DOE shall describe the steps taken to assess the relevant information contained in the PoA-DD against these criteria. The DOE shall state its opinion regarding the applicability of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents to the proposed generic CPA.	Refer Appendix 5 of this report for details. The selected methodology is correctly applied. But other conditions from tools referred are demonstrated in the POA-DD.
104. If the generic CPA in the proposed CDM PoA applies multiple methodologies, the DOE shall assess and state its opinion on whether the methodologies were applied in accordance with the	Generic CPA 1: CME used methodologies AMS.II.G v10.0, AMS-III.BG v3.0 and AMS-I.E v9.0.

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"CDM project standard for programme of activities".	Generic CPA 2: CME used methodologies AMS.II.G v10.0, AMS-III.BG v3.0. Generic CPA 3: CME used methodologies AMS.II.G v10.0. The validation team has reviewed the PoA-DD and confirmed that methodologies are correctly applied. The generic CPAs are mutually exclusive.
7.13.3.2. Project boundary, sources and greenhouse gases 105. The DOE shall determine whether the description of how to define the project boundary of each of the corresponding CPAs, including which sources and GHGs are to be included in the project boundary under which conditions or circumstances in accordance with the applied methodologies and the applied standardized baselines	The validated team has reviewed the PoA DD under relevant section project boundary and accepted the source and sink of the CPAs. Scenario mentioned in the relevant sections (under project boundary section and baseline section for each generic CPA) is consistent.
106. The DOE shall confirm the description of defining project boundary based on documented evidence and, where conducted, by an on-site inspection	Scenario mentioned in section A.3 of the POA-DD and the diagrams mentioned in section of I.4 is consistent.
107. If the applied methodologies and the applied standardized baselines allow the coordinating/managing entity to choose whether a source or gas is to be included within the project boundary, the DOE shall determine whether the coordinating/managing entity has justified that choice. The DOE shall determine whether the justification provided is reasonable, based on an assessment of supporting documented evidence provided by the coordinating/managing entity and corroborated by observations if required	Scenario mentioned in section A.3 of the POA-DD and the diagrams mentioned in section of I.4 is consistent. The validated team has reviewed the PoA-DD ^[2] under relevant section project boundary and accepted the source and sink of the CPAs. Scenario mentioned in the relevant sections (under project boundary section and baseline section for each generic CPA) is consistent.
108. For the proposed generic CPA that has both A/R and non-A/R components, in order to avoid double counting of emission sources, the DOE shall confirm that the emissions associated with the A/R activity will be accounted for and documented by the A/R CPAs	The POA contains only non A/R component. Hence not applicable.
109. The DOE shall describe how the validation of the project boundary has been performed by detailing the documentation assessed (e.g. a commissioning report) and, where conducted, by describing its observations during any on-site inspection undertaken (i.e. observations of the physical site or equipment used in the process).	Scenario mentioned in the POA-DD ^[2] and the diagrams mentioned is consistent.
110. The DOE shall state whether the description of how to define project boundary of each of the corresponding CPAs and the selected sources and gases are justified for the proposed generic CPA. Should the DOE identify emission sources that will be affected by the implementation of corresponding CPAs and which are expected to contribute more than 1 per cent of the overall expected average annual GHG emission reductions or net anthropogenic GHG removals, and are not addressed by the applied methodologies or the applied standardized baselines, the DOE shall request a clarification of, revision to, or deviation	For all the generic CPAs: The project boundary is defined in the respective methodologies. The validation did not find any emission sources other than specified in the methodologies.

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from the methodologies or the standardized baselines, as appropriate	
7.13.3.3. Baseline scenario 111. The DOE shall determine whether the description of how to establish the baseline scenario for each of the corresponding CPAs is in accordance with the applied methodologies	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
112. The following applies to a proposed generic CPA using an approved standardized baseline that standardizes the baseline scenario instead of paragraph 111 above: The DOE shall determine whether the description of how to establish the baseline scenario for each of the corresponding CPAs is in accordance with the applied standardized baseline	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
113. The DOE shall determine whether any procedure contained in the applied methodologies to identify the most reasonable baseline scenario has been correctly applied. If the applied methodologies require the use of methodological tools (such as the “Tool for the demonstration and assessment of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario, the DOE shall consult the methodologies on the application of these methodological tools. In such cases, the specific guidance in the methodologies shall supersede the corresponding requirements of the methodological tools	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
114. If the applied methodologies require several alternative scenarios to be considered in the identification of the most plausible baseline scenario, the DOE shall, based on financial expertise and local and sectoral knowledge, determine whether all scenarios that are considered by the coordinating/managing entity and any scenarios that are supplementary to those required by the methodologies, are realistic and credible in the context of the proposed generic CPA and that no alternative scenario has been excluded	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
115. The DOE shall determine whether the identification of the most plausible baseline scenario is reasonable by validating the assumptions, calculations and rationales used in the generic CPA-DD. It shall determine whether documents and sources referred to in the generic CPA-DD are correctly quoted and interpreted. The DOE shall cross-check the information provided in the generic CPA-DD with other verifiable and credible sources, such as local expert opinion, if available	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
116. The DOE shall determine whether the generic CPA-DD provides a description of the technology that would be employed and/or the activities that would take place in the absence of each of the corresponding CPAs	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.
117. The DOE shall determine whether, drawing on its knowledge of the sector and/or advice from local experts, all applicable CDM rules and requirements have been taken into account in describing the identification of the baseline scenario for each of the	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.

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corresponding CPAs, as well as relevant national and/or sectoral policies, regulations and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. Two types of national and/or sectoral policies or regulations have to be taken into account: (a) National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels, otherwise known as policies that increase GHG emissions, and are called type E+ policies. For this type of national and/or sectoral policies or regulations, only those that have been implemented before the adoption of the Kyoto Protocol by the Conference of the Parties (COP) (decision 1/CP.3, 11 December 1997) shall be taken into account when identifying a baseline scenario. If such national and/or sectoral policies or regulations were implemented since the adoption of the Kyoto Protocol, the baseline scenario shall refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place; (b) National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes), otherwise known as policies that decrease GHG emissions, and are called type E-policies. For this type of national and/or sectoral policies or regulations, those that have been implemented since the adoption by the COP of the modalities and procedures for the CDM9 need not be taken into account in identifying a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).	
118. The following applies to a proposed generic CPA using an approved standardized baseline that standardizes the baseline scenario instead of paragraphs 113–117 above: The DOE shall describe whether the description of the identification of the baseline scenario in the generic CPA-DD is in accordance with the selected standardized baseline	No standardised baseline is used.
119. The DOE shall describe the steps taken to assess the requirements and state its opinion on whether: (a) All the assumptions and data used by the coordinating/managing entity are listed in the generic CPA-DD, including their references and sources; (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the generic CPA-DD; (c) Assumptions and data used in the identification of	Baseline for each scenario as per methodology is demonstrated. Baseline for each CPA is demonstrated.

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the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable; (d) Relevant national and/or sectoral policies, regulations and circumstances are considered and listed in the generic CPA-DD; (e) The applied methodologies have been correctly followed to describe identification of the most plausible baseline scenario and the description reasonably represents what would occur in the absence of corresponding CPAs.	
120. The DOE shall describe other steps taken and sources of information used to cross-check the information contained in the generic CPA-DD	The validation team has independently used the third party documents to assess the information.
121. The following applies to a proposed generic CPA using an approved standardized baseline that standardizes the baseline scenario instead of paragraphs 119 and 120 above: The DOE shall state its opinion on whether the description of the identification of baseline scenario in the generic CPA-DD is in accordance with the selected standardized baseline.	No standardised baseline is used.
7.13.3.4. Estimation of emission reductions or net anthropogenic removals 122. The DOE shall determine whether the description of how to undertake the ex ante and ex post calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions to be achieved by each of the corresponding CPAs is in accordance with the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents and, where applicable, the "Standard: Sampling and surveys for CDM project activities and programme of activities"	The validation team has reviewed the PoA-DD ^[2] where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
123. Where the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents allow for selection between options for equations or parameters, the DOE shall determine whether adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed generic CPA and other evidence provided) and that the correct equations and parameters have been used, in accordance with the applied methodologies, ¹⁰ the applied standardized baselines and the other applied methodological regulatory documents	The validation team has reviewed the PoA-DD ^[2] where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
124. The DOE shall verify the justification given in the generic CPA-DD for the choice of data and parameters used in the equations: (a) Data and parameters fixed ex ante: If data and parameters will not be monitored throughout the crediting period of the proposed generic CPA but have already been determined and will remain fixed throughout the crediting period, the DOE shall determine whether all data sources and assumptions are appropriate and calculations are correct as applicable to the proposed generic CPA, and will result in an accurate or otherwise conservative	The validation team has reviewed the PoA-DD ^[2] where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, expost parameters, monitoring plan, QA/QC procedure) are detailed in Appendix of this report.

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estimate of GHG emission reductions. If the applied methodologies require that any of these data and parameters be determined in accordance with the “Standard: Sampling and surveys for CDM project activities and programme of activities”, the DOE shall determine whether the sampling efforts were undertaken in accordance with this standard (b) Data and parameters to be monitored: If data and parameters will be monitored or estimated on implementation and hence become available only after validation of the proposed CDM PoA, the DOE shall determine whether the estimates provided in the generic CPA-DD for these data and parameters are reasonable. If the applied methodologies require that any of these estimates be determined in accordance with the “Standard: Sampling and surveys for CDM project activities and programme of activities”, the DOE shall determine whether the sampling efforts were undertaken in accordance with this standard	
125. The DOE shall describe the steps taken to assess the requirements and state its opinion on whether: (a) All assumptions and data used by the coordinating/managing entity are listed in the generic CPA-DD, including their references and sources; (b) All documentation used by the coordinating/managing entity as the basis for assumptions and source of data is correctly quoted and interpreted in the generic CPA-DD; (c) All values used in the generic CPA-DD including GWPs are considered reasonable in the context of the proposed generic CPA; (d) The methodologies, the standardized baselines and the other methodological regulatory documents have been applied correctly to calculate baseline, project and leakage GHG emissions as well as GHG emission reductions; (e) All estimates of the baseline GHG emissions can be replicated using the data and parameter values provided in the generic CPA-DD; (f) The sampling efforts were undertaken in accordance with the “Standard: Sampling and surveys for CDM project activities and programme of activities”, where the applied methodologies require that the data and parameters be determined in accordance with this standard.	The validation team has reviewed the PoA-DD^{12/} where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
126. The DOE shall describe how it has verified the data and parameters used in the equations, including references to any other data sources used	The validation team has reviewed the PoA-DD^{12/} where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
7.13.3.5. Monitoring plan 7.13.3.5.1. General	The validation team has reviewed the PoA-DD^{12/} where baseline, project and leakage emission

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127. If the coordinating/managing entity has included a description of how to develop a monitoring plan in the generic CPA-DD for validation for registration of the proposed CDM PoA, the DOE shall apply the requirements in section 7.13.3.5.2 below	calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
128. If the coordinating/managing entity has chosen to delay the submission of the monitoring plan for the proposed generic CPA, the DOE shall apply the requirements in section 7.13.3.5.3 below	CME did not opt for delayed submission of the monitoring plan.
7.13.3.5.2. Validation of the monitoring plan 129. The DOE shall determine whether the description of how to develop a monitoring plan for each of the corresponding CPAs complies with the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents and, where applicable, the "Standard: Sampling and surveys for CDM project activities and programme of activities".	The validation team has reviewed the PoA-DD ^{12/} where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
130. The DOE shall apply a three-step process to meet the above requirement: (a) To assess compliance of the description of how to develop a monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, the DOE shall: (i) Identify the list of parameters required by the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents by means of document review; (ii) Confirm that the description of how to develop a monitoring plan contains all necessary parameters, that they are described, and that the means of monitoring described in the monitoring plan comply with the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents; (b) To assess the feasibility of the monitoring plan, the DOE shall, by means of review of the documented procedures, interviews with relevant personnel, project plans and, where conducted, any on-site inspection of the proposed CDM PoA, assess whether: (i) The monitoring arrangements described in the monitoring plan are feasible within the project design; (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that GHG emission reductions achieved by/resulting from corresponding CPAs can be reported ex post and verified; (c) To determine whether the proposed sampling plan provides parameter value estimates in an unbiased and reliable manner, where the	The validation team has reviewed the PoA-DD ^{12/} where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
coordinating/managing entity applied a sampling approach to determine data and parameters, the DOE shall assess the proposed sampling plan in accordance with the “Standard: Sampling and surveys for CDM project activities and programme of activities	
131. The DOE shall: (a) State its opinion on the compliance of the description of how to develop a monitoring plan with the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents and, where applicable, the “Standard: Sampling and surveys for CDM project activities and programme of activities”; (b) Describe the steps undertaken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design; (c) State its opinion on the coordinating/managing entity’s ability to implement the monitoring plan	The validation team has reviewed the PoA-DD ²⁷ where baseline, project and leakage emission calculation is demonstrated. The validation of calculation of ER for each generic CPA (ex-ante, ex-post parameters, monitoring plan, QA/QC procedure) are detailed in Appendix 8 of this report.
7.13.3.5.3. Delayed validation of monitoring plan 132. The DOE shall confirm whether the coordinating/managing entity has chosen to delay the submission of the description of how to develop the monitoring plan	Delayed monitoring plan is not opted by the CME.
133. The DOE shall determine whether the relevant sections in the generic CPA-DD do not contain the information related to the development of the monitoring plan and clearly state that the delayed submission of the description of how to develop the monitoring plan has been chosen by the coordinating/managing entity	Delayed monitoring plan is not opted by the CME.
134. The DOE shall document the decision taken by the coordinating/managing entity to delay the submission of the description of how to develop the monitoring plan	Delayed monitoring plan is not opted by the CME.
7.13.4. Crediting period type and duration 135. The DOE shall determine whether the coordinating/managing entity defined the type and duration of the crediting period applicable to all corresponding CPAs in accordance with the relevant requirements in the “CDM project standard for programmes of activities	Each CPA has renewable crediting period of 7 years.
7.13.5. Eligibility criteria for inclusion of component project activities 136. The DOE shall assess whether the eligibility criteria for inclusion of corresponding CPAs in the proposed CDM PoA are defined in accordance with the “CDM project standard for programmes of activities”.	Refer Appendix 6 and 7 of this report for details.
137. The DOE shall assess how each eligibility criterion, including the conditions that corresponding CPAs meet the requirement pertaining to the demonstration of additionality, is defined in accordance with the applicable requirements in the “CDM project standard for programme of activities”, and is verifiable as well as sufficiently objective and comprehensive to permit the assessment of the	Refer Appendix 6 and 7 of this report for details.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
inclusion of corresponding CPAs in the PoA.	
7.13.6. Specific validation requirements for small-scale generic component project activities 7.13.6.1. General 138. The DOE shall determine whether the proposed generic CPA for small-scale CPAs (hereinafter referred to as generic small-scale CPA) that follows the CDM SSC M&Ps and other CDM rules and requirements for small-scale project activities applies only small-scale approved methodologies. However, for a proposed generic small-scale CPA that is within the small-scale activity threshold but applies a large-scale approved methodology, the DOE shall determine whether this generic CPA follows the CDM M&Ps and other CDM rules and requirements for large-scale project activities.	CME used methodologies AMS.II.G Energy efficiency measures in thermal applications of non-renewable biomass --- Version 10.0 adopted at EB100. AMS-III.BG. Emission reduction through sustainable charcoal production and consumption --- Version 3.0 adopted at EB79 AMS-I.E.Switch from non-renewable biomass for thermal applications by the user --- Version 9.0 adopted at EB100.
139. If the coordinating/managing entity developed a CPA inclusion template to include automatically additional CPAs without validation by a DOE in accordance with the "CDM project standard for programme of activities", the DOE shall determine whether: (a) The generic CPA defines the corresponding CPAs to be deemed automatically additional in accordance with the "Methodological tool: Demonstration of additionality of microscale project activities"; (b) The CPA inclusion template has been correctly completed using the valid version the "Component project activity inclusion (CME inclusion) form" (CDM-CPA-INC-CME-FORM).	This is PoA validation only. Hence not applicable.
7.13.6.2. Project activity type and eligibility 140. The DOE shall determine whether: (a) The proposed generic small-scale CPA is within the thresholds of the three possible types of small-scale activities, as defined in the "CDM project standard for programmes of activities"; (b) The proposed generic small-scale CPA conforms to one or more of the approved small-scale methodologies applied in conjunction with the "Guideline: General guidelines for SSC CDM methodologies".	CME has indicated the type I,II,III applicable to the generic CPA correctly in the PoA-DD. Threshold limit for small scale project is satisfied.
141. The DOE shall state its opinion on whether the proposed generic small-scale CPA is within the thresholds for small-scale project activities	CME has indicated the type I applicable to the generic CPA correctly in the PoA-DD. Threshold limit for small scale project is satisfied.
7.13.6.3. Description of generic small-scale component project activities 142. The DOE shall: (a) Describe the process undertaken to validate the accuracy and completeness of the generic small-scale CPA description; (b) State its opinion on the accuracy and completeness of the generic small-scale CPA description	The validation team has reviewed the section A.1 and A.3 of the PoA-DD and therefore confirming its accuracy and completeness.
7.13.6.4. Application of methodologies and standardized baselines 7.13.6.4.1. General	There are 3 generic CPAs defined by the CME in the PoA-DD ^{/2/} .

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
143. If the generic small-scale CPA involves more than one component of small-scale project activity, the DOE shall determine whether the generic CPA-DD describes, for each component separately, how to undertake the ex ante and ex post calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions in accordance with the "CDM project standard for programme of activities"	
7.13.6.4.2. Monitoring plan 144. The DOE shall: (a) Describe the process undertaken to validate the accuracy and completeness of the description of how to develop the monitoring plan; (b) State its opinion on the accuracy and completeness of the description	The validation team has reviewed the PoA-DD ^{/2/} and therefore confirming its accuracy and completeness.
7.14. Global stakeholder consultation 159. The DOE shall determine whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PoA-DD of the proposed CDM PoA.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
160. The DOE shall acknowledge receipt of all submitted comments on the PoA-DD of the proposed CDM PoA.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
161. In case of doubt, the DOE shall determine the authenticity of the name and contact details of the individual or organization on whose behalf the comments have been submitted	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
162. Once the DOE has determined which submitted comments are authentic, it shall contact the secretariat to make them publicly available.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
163. The DOE shall determine whether the authentic comments are relevant to the following defined scope of comments: (a) The comment discusses issues specific to the proposed CDM PoA; (b) The comment discusses issues related to compliance with the relevant CDM rules and requirements.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
164. The DOE shall request the coordinating/managing entity to address all the comments that it determined to be authentic and relevant in accordance with paragraphs 161 and 163 above.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
165. If a comment indicates that the proposed CDM PoA does not comply with the CDM rules and requirements but are not substantiated, the DOE shall request a clarification from the entity that provided the comment. Upon receiving the clarification, the DOE shall determine whether a further clarification request is required. If no additional information or substantiation is provided within 14 days of the request for clarification being made, the DOE shall request the coordinating/managing entity to address the comments as originally provided.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
166. The DOE shall determine whether changes to	POA-DD is published for GSCP ^{/2/} on 22 nd June

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
the PoA-DD have been made after the publication of the PoA-DD for global stakeholder consultation	2019. But there was no comments.
167. A DOE shall make the revised PoA-DD publicly available for global stakeholder consultation in accordance with the "CDM project cycle procedure for programmes of activities" if it determines that: (a) The project participants or the coordinating/managing entity that have a contractual relationship with the DOE have been replaced; (b) Significant changes have been made to the PoA design; or (c) The selected methodologies, the selected standardized baselines and/or the combination thereof have been changed by the coordinating/managing entity, unless the change only involves the removal and no addition of methodologies and/or standardized baselines, and the removal of the methodologies and/or the standardized baselines does not affect the physical design of, and the end-use services provided by, CPAs corresponding to the generic CPAs that apply the methodologies and the standardized baselines that remain (i.e. the methodologies and, where applicable, the standardized baselines that were not removed).	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
168. If the DOE determines that significant changes have been made to the PoA design, the DOE may seek guidance from the Board on whether the revised PoA-DD shall be published for global stakeholder consultation in accordance with the "CDM project cycle procedure for programmes of activities"	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
169. The DOE shall report the details of the actions taken to: (a) Authenticate the information on the submitters of the comments in case of doubt; (b) Determine the relevance of the authentic comments to the defined scope of comments; (c) Take due account of the authentic and relevant comments, including dates of receipt, responses by the coordinating/managing entity and responses by the DOE.	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
170. If the DOE identifies changes to the PoA-DD after its publication for global stakeholder consultation, the DOE shall state its opinion on whether the publication of the revised PoA-DD for global stakeholder consultation was necessary in accordance with paragraph 167 above	POA-DD is published for GSCP ^{/2/} on 22 nd June 2019. But there was no comments.
7.15. Validation status, outcomes, opinion and report 7.15.1. Validation status and outcomes 171. The DOE shall provide an update of the status of its validation activity in accordance with the "CDM project cycle procedure for programmes of activities"	The validation team has confirmed that the proposed CDM PoA would achieve the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the generic CPA-DDs.
7.15.2. Validation opinion	The validation team has confirmed that the proposed

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
172. The DOE shall include a statement on the likelihood of the proposed CDM PoA achieving the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the generic CPA-DDs.	CDM PoA would achieve the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the generic CPA-DDs.
173. The DOE shall notify the coordinating/managing entity of the validation outcome. The notification to the coordinating/managing entity shall include: (a) A confirmation of validation and date of submission of the validation report as part of the request for registration of the proposed CDM PoA to the Board; or (b) An explanation of reasons for non-acceptance if the proposed CDM PoA, as documented, is determined not to fulfil the requirements for validation	The validation team has notified the CME and atmosfair the positive outcome of the validation of the PoA.
174. The DOE shall provide either: (a) A positive validation opinion in its validation report if the DOE determines that the proposed CDM PoA complies with the applicable CDM rules and requirements; or (b) A negative validation opinion in its validation report explaining the reason for its opinion if the DOE determines that the proposed CDM PoA does not fulfil the applicable CDM rules and requirements	The validation team has notified the CME and atmosfair the positive outcome of the validation of the PoA.
175. The DOE shall include the following in its opinion: (a) A summary of the validation method and process used and the validation criteria applied; (b) A description of programme components or issues not covered by the validation process (c) A summary of the validation conclusions; (d) A statement on whether the proposed CDM PoA meets the applicable CDM rules and requirements.	The validation report contains summary of the validation method and process used and the validation criteria applied, statement on whether the proposed CDM PoA meets the applicable CDM rules and requirements and validation conclusions.
7.15.3. Validation report 176. The DOE shall report the results of its assessment in the validation report	The validation report contains summary of the validation method and process used and the validation criteria applied, statement on whether the proposed CDM PoA meets the applicable CDM rules and requirements and validation conclusions.
177. In its validation report, the DOE shall provide the following: (a) A summary of the validation process and its conclusions; (b) Results of the dialogue between the DOE and the coordinating/managing entity, as well as any adjustments made to the PoA design following the stakeholder consultation. It shall reflect the responses to CARs and CLs, identification of FARs, and discussions on and revisions to the programme documentation;	The validation report contains summary of the validation method and process used and the validation criteria applied, statement on whether the proposed CDM PoA meets the applicable CDM rules and requirements and validation conclusions. Other details such as name of the interviewees, documents reviewed, details of validation team/TR team, quality control procedure is mentioned.

Requirements of Validation and Verification Standard for PoA v2.0	Validation opinion of how requirement of each para of VVS-PoA is satisfied
(c) All its applied approaches, findings and conclusions on: (i) The completion of the PoA-DD, using the valid version of the applicable form and following instructions therein; (ii) The requirements set out in sections 7.2–7.14 above; (d) A validation opinion; (e) A list of interviewees, documents reviewed, sampling approaches used by the DOE and, where conducted, outline of on-site inspections. Where the DOE applied a sampling approach to the on-site inspection, the DOE shall include a description of how the sample size was determined and how the field check was carried out; (f) Details of the validation team, technical experts and internal technical reviewers involved, together with their roles in the validation activity and, where conducted, details of who conducted the on-site inspection; (g) Information on quality control within the team and in the validation process; (h) Appointment certificates or curricula vitae of the DOE's validation team members, technical experts and internal technical reviewers for the proposed CDM PoA.	
178. If the DNA has forwarded complaints from local stakeholders to the DOE during the validation in accordance with paragraph 63 above, the DOE shall, once the request for registration is published on the UNFCCC CDM website, inform the DNA and the complainants of the publication of the validation report.	PoA-DD is published for GSCP on 22 nd June 2019. But there was no comments.

Appendix 8: Calculation of Emission reduction

Generic CPA no 1:

Emission reduction achieved by the generic CPA 1 ($ER_{CPA1,y}$)	Generic CPA no 1: This CPA aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this component is calculated using the applied methodology AMS.II. G v10.0^{3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The
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	emission reduction from this component is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. The households may also be provided with renewable biomass such as waste wood, pellets to operate the improved cook stoves. The emission reduction from this component is calculated using the applied methodology AMS.I.E v9.0^{/3/}. Hence, $ER_{CPA1,y} = ER_{AMS.II.G} + ER_{AMS.III.BG} + ER_{AMS.I.E}$ Where $ER_{AMS.II.G}$ - Emission reduction from AMS.II.G component $ER_{AMS.III.BG}$ - Emission reduction from AMS.III. BG v3.0 component $ER_{AMS.I.E}$ - Emission reduction from AMS.I.E v9.0 component. The validation of emission reduction calculation for this CPA is detailed below.
Emission reduction from AMS.II.G component ($ER_{AMS.II.G}$)	As per para 21 of AMS.II.G v10.0, it is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. As per para 22/equation 1 of AMS.II.G v10.0, emission reduction is calculated as below $ER_{AMS.II.G,y} = \sum \sum ER_{y,i,j} - LE_y$ Where i-Indices for the situation where more than one type of project device is introduced to replace the pre-project devices j-Indices for the situation where there is more than one batch of project device $ER_{y,i,j}$ -Emission reductions by project device of type i and batch j during year y LE_y -Leakage emissions in the year y The validation of each is detailed below
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{yi,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$ Where $B_{y,savings,i,y}$ -Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y $N_{yi,j}$ -Number of project devices of type i and batch j operating during year y μ_y -Adjustment to account for any continued use of pre-project devices during the year y $f_{NRB,y}$ -Fraction of woody biomass that can be established as non-renewable biomass $NCV_{biomass}$ -Net calorific value of the non-renewable woody biomass that is substituted $EF_{projected\ fossil\ fuel}$ -Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers The validation of each is detailed below.
Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y ($B_{y,savings,i,y}$)	As per para 23 of AMS.II.G, $B_{y,savings,i,y}$ due to implementation of efficient thermal devices is estimated as per the four options. The validation team has checked the PoA-DD wherein CME has opted for option 3 (Water boiling

	test). As per para 27 of AMS.II.G v10.0, Under option 3, there are two equations (equation 6 and equation 7). CME considered equation 7. As per equation 7, $B_{y,savings,i,y} = B_{y=1,new,i,j,survey} \times (\eta_{new,i,j} / \eta_{old,i,j} - 1)$ Where $B_{y=1,new,i,j,survey}$ -Quantity of woody biomass used by project devices in tonnes per device of type i and batch j $\eta_{new,i,j}$ -Efficiency of the project device i and batch j $\eta_{old,i,j}$ -Efficiency of the old devices being replaced by project devices of type i and batch j The monitoring approach is valid for the PoA level which is in line with para 45 of AMS.II.G v10.0. The validation of each is detailed below.
Quantity of woody biomass used by project devices in tonnes per device of type i and batch j ($B_{y=1,new,i,j,survey}$) (monitored parameter)	As per para 29 of AMS.II.G v10.0, the calculations in the equations above assume that there is only one device per household. Since the CME is planned to disseminate project cookstove to households at a subsidised price, as a matter of policy, it would provide one project cookstove only to a household. However, if future CME decided to provide project cook stoves to community or schools, then the same would be adjusted accordingly as per the methodology. No charcoal would be used in the baseline or project cookstove, so para 30 is not applicable. The lifetime of the project cookstove is 7 years as per the manufacturer specification. As per table 15 of AMS.II.G v10.0, the parameter shall be calculated in the first year of the introduction of the devices (e.g. during the first year of the crediting period, $y=1$) through sample measurement campaigns at representative households and/or sample survey. As per the PoA-DD, it would be calculated through sample survey based on number of canisters used per week (fillings) and weight of each canister(load). $B_{y=1,new,i,j,survey}$ = number of canisters used per week x weight of each canister or $B_{y=1,new,i,j,survey} = fillings_{y=1} * load_{y=1}$ Number of canisters would be determined by monitoring survey and weight of canister would be determined during WBT test. Only calibrated equipments would be used for measurements.
Efficiency of the project device i and batch j ($\eta_{new,i,j}$) (monitoring parameter) Loss of efficiency is determined from one of the options a,b,c,d	As per table 11 of AMS.II.G v10.0, Efficiency shall be measured/estimated as per the following: 1.The efficiency of the project devices shall be based on certification by a national standards body or an appropriate certifying agent recognized by that body As per the PoA-DD, the efficiency is tested and confirmed by the testing center of the Ministry of Micro, Small & Medium Enterprises. As per table 11 of AMS.II.G v10.0, the sampling test of stoves by such certification bodies/agents or manufacturers shall be conducted following a 90/10 precision in accordance with the "Standard for

	sampling and surveys for CDM project activities and programme of activities. However, the following simplified approach may be used, when the efficient cookstoves are produced by a manufacturer with a good quality management system in place to ensure that the individual equipment produced do not vary beyond the range of acceptance limits (e.g. characteristics such as materials, critical dimensions): (i) Conduct a sample test on three cookstoves with three tests conducted for each stove. The test can be carried out by project proponents by themselves or stove manufacturers; (ii) If the standard deviation of the nine test results indicated above is very small and 90/10 precision requirement is met (in this case, the value of the t-distribution for 90 per cent confidence shall be used instead of Z value), the efficiency determined is acceptable, otherwise more sample tests would be required until 90/10 precision is met. The loss of efficiency will be determined as per one of the 4 options as specified in para 32a,b,c,d. , The parameter is measured by dedicated trained monitoring team based on WBT test under field conditions if option c is chosen. The efficiency of the project devices of the first batch will be monitored annually following the Water Boiling Test protocol version 4.2.3^{/15/}. WBT would not account of quantity of charcoal generated. WBTs will be conducted on randomly selected project cookstoves; the sample size of project cookstove testes will be large enough to meet the 90/10 requirements of the methodology. The validation team has interviewed the CME and accepted the monitoring approach as robust/feasible. As per para 32 of AMS.II.G, the loss in efficiency of the project devices <i>i</i> in each batch <i>j</i> due to aging shall be accounted during the monitoring period <i>y</i>. As option 3 was selected, the CME may choose any option mentioned in para 32 to account for the loss in efficiency. The option shall be identified and fixed ex ante in the PDD at the time of registration. As per the PoA-DD, CME has opted for option C i.e Determination of the rate of efficiency drop for a representative sample of the first batch of project device <i>i</i> in year <i>y</i> and assume that same rate of loss in efficiency applies to all other batches. In other words, it may be assumed that the degradation of efficiency measured in a representative sample of the first batch of project devices <i>i</i> apply to all subsequent batches. The efficiency of the project devices in the first batch has to be monitored annually through representative samples and this rate of loss in efficiency may be applied correspondingly to all batches.
Efficiency of the old devices being replaced by project devices of type <i>i</i> and batch <i>j</i> ($\eta_{old,i,j}$) = 10% (monitored parameter)	As per table 17 of AMS.II.G v10.0, it can be fixed for each individual household as default value. The validation team has interviewed the CME and accepted the value as correct.
Number of project devices of type <i>i</i> and batch <i>j</i> operating during year <i>y</i> ($N_{y,i,j}$) (monitored parameter)	As per table 8 of AMS.II.G v10.0, it shall be determined measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve

Statistically adjusted drop out from total population of ICS in period y ($DO_{II,G,y}$) (monitored parameter)	90/10 confidence precision. If the survey shows 10% as non-operating, then an adjustment factor of 0.9 shall be applied to number of project devices commissioned in a particular batch. As per the PoA-DD, $N_{y,i,j} = N_{soldtotaly,i,j} \times d_{average,y} / mlength_y$ Where $N_{soldtotaly,i,j}$ -total number of ICS type i and batch j sold within monitoring period y It will be measured number of sales contracts stored and the corresponding number of entries of ICS sold in the database $d_{average,y}$ - average number of days the ICS sold in period y were operational in period y, derived from sales dates on sales contracts $mlength_y$ - length of monitoring period y Statistically adjusted drop out from total population of ICS in period y ($DO_{II,G,y}$) will be determined through sampling survey by dedicated monitoring team. This will be measured every two years as per the PoA-DD. The validation team has specified the sampling plan for this parameter which is correct, feasible.
Adjustment to account for any continued use of pre-project devices during the year y (μ_y) =1 (monitored parameter)	As per table 9 of AMS.II.G v10.0, as equation 7 is used for calculating $B_{y,savings}$, $\mu_y=1$. Hence accepted by the validation team.
Fraction of woody biomass that can be established as non-renewable biomass ($f_{NRB,y}$) (ex-ante parameter)	It will be determined as per the requirements of tool "Calculation of the fraction of non-renewable biomass" v2.0.^{/16/} As per para 8 of the tool, f_{NRB} is calculated as follows. $f_{NRB} = NRB / (NRB + RB)$ where NRB -Quantity of non-renewable biomass in the country/region or project area RB - Quantity of renewable biomass in the country/region or project area As per para 16 of the tool, the value of f_{NRB} for the country/region or project area shall be calculated ex ante i.e f_{NRB} value is determined once at the validation stage, thus no monitoring and recalculation of the f_{NRB} value during the crediting period is required. As per the PoA-DD, it will be determined for every CPA before validation. This is in line with para 44&para 45 of AMS.II.G v10.0.
Net calorific value of the non-renewable woody biomass that is substituted ($NCV_{biomass}$) =0.0156 TJ/tonne of wood (ex-ante parameter)	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers ($EF_{projected_fossil\ fuel}$) =63.7 tCO₂/TJ	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil\ fuel}$
Leakage emissions per year (LE_y)	As per para 34 of AMS.II.G v10.0, Leakage related

	to the non-renewable woody biomass saved by the project activity shall be assessed based on ex post surveys of users and the areas from which this woody biomass is sourced. Alternatively, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. As per para 43 of AMS.II.G v10.0, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages. As per para 35, Project activities switching from baseline device using firewood to efficient project device using charcoal or switching from firewood to efficient project device using processed biomass (briquette, pellets, and woodchips) shall take into account the leakage effects related to the charcoal or processed biomass production. Since this is not the case in this PoA, leakage from this source is zero.
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0 can be written as $ER_{y,i,j} = B_{y,savings,i,y} \times 0.95 \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times \frac{NCV_{biomass}}{NCV_{projected\ fossil\ fuel}}$
Rated thermal capacity as per manufacturer specification (ex-ante parameter)	This is sourced from technical specification of project cookstove. Hence accepted.
Number of hours of utilization of the device during the year y (monitoring parameter)	As per table 10 of AMS.II.G v10.0, this parameter is monitored at least once in every two years. The biennial survey shall follow a 95 per cent confidence interval and a 10 per cent margin of error.
Life span	As per table 18 of AMS.II.G v10.0, since option 3 is chosen by the CME for determining $B_{y,savings,y}$, the operating life time of the project device. should be monitored. Hence accepted.
Date of commissioning of batch j	As per table 19 of AMS.II.G v10.0, to establish the date of commissioning, the CME may opt to group the devices in "batches" and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch. Hence accepted.
Date of commissioning of project device i	It is determined at the time of sale of project cookstove. It is fixed and recorded at the time of distribution of project cookstove.
Emission reduction from AMS.III. BG v3.0 component ($ER_{AMS.III. BG,y}$)	As per para 21 of AMS.III.BG v3.0, for the project technology equipped with capture and destruction of the pyrolysis gases, including micro-gasifier, emission reductions are calculated as follows. $ER_{AMS.III. BG,y} = \sum Q_{CCP,i,y} \times [(CF \times NCV_{wood} \times \frac{NCV_{charcoal,i}}{NCV_{charcoal,default}} \times f_{NRB,BL,wood} \times EF_{projected_fossil\ fuel}) + (SMG_{y,b} - M_d) \times (1 - f_{NRB,BL,wood}) \times GWP_{CH4}] - PE_{y,fugitive} - PE_{y,flaring} - PE_{FF,y} - PE_{EI,y} - PE_{BC,y}$ Where $Q_{CCP,i,y}$ -Quantity of charcoal type i produced and used in year y CF-Default wood to charcoal conversion factor NCV_{wood} -Net calorific value of wood $NCV_{charcoal,i}$ -Net calorific value of the charcoal type i produced during the project $NCV_{charcoal,default}$ -Default net calorific value of

	charcoal $f_{\text{NRB,BL,wood}}$ -Fraction of biomass of type i used in the absence of the project activity that can be established as non-renewable biomass $EF_{\text{projected_fossil fuel}}$ -Emission factor for the substitution of non-renewable woody biomass by similar consumers $SMG_{y,b}$ -Specific methane generation for the baseline charcoal generation process in the year y M_d -Factor to account for any legal requirement for capture and destruction of methane in the charcoal production facility GWP_{CH_4} -Global warming potential of methane applicable to the crediting period $PE_{y,\text{fugitive}}$ -Fugitive emissions from operation of charcoal producing facility $PE_{y,\text{flaring}}$ -Emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year y $PE_{\text{FF},y}$ -Project emissions due to fossil fuel consumption in charcoal production facilities in year y $PE_{\text{El},y}$ -Project emissions due to electricity consumption in charcoal production facilities in year y $PE_{\text{BC},y}$ -Project emissions due to biomass cultivation in year y The validation of the same is detailed below.
Quantity of charcoal type i produced and used in year y ($Q_{\text{CCP},i,y}$) (monitored parameter)	As per table 7 of AMS.III.BG v3.0, The parameter can be monitored according to one of the following options: Option1: Direct measurement (e.g. use of a scale) of the weight of charcoal products supplied; Option 2: Calculation of the total weight of charcoal supplied; based on the total number of bags supplied and the average weight of charcoal product per bag. The weight of charcoal products per bag is determined on sample basis in accordance with the sampling standard (e.g. using systematic sampling method). Option 2 can only be used if Option 1 is not available. Charcoal generated from only woody biomass is eligible for the case of micro-gasifier As per the PoA-DD, the parameter will be monitored according to one of the following options: Option1: Direct measurement (e.g. use of a scale) of the weight of charcoal products supplied; at the site of the charcoal users or retailers Option 2: Calculation of the total weight of charcoal supplied; based on the total number of bags supplied (e.g. using systematic sampling method). Option 2 will only be used if Option 1 is not available. $Q_{\text{CCP},i,y}$ will be derived from invoices/receipts of sales of charcoal generated in the CPA to charcoal users and retailers. If feasible, the weight of charcoal delivered will be indicated on invoices, requiring the availability of calibrated weighbridges or other scales. Where invoicing to charcoal buyers cannot based on

	the exact weight but on the number of bags delivered, the following formula will apply: $Q_{CCP,i,y} = \text{weightbags}_{y,i} * \text{nbags}_{y,i}$ Where: $\text{weightbags}_{y,i}$ - average weight of bags of charcoal type i in period y This will be determined on sample basis in accordance with the sampling standard $\text{nbags}_{y,i}$ - total number of bags of charcoal type i in period y This will be determined based on invoices/receipts of charcoal buyers. Charcoal is sold to households, SMEs, group of households served by a charcoal market.
Default wood to charcoal conversion factor (CF) =6 (ex-ante parameter)	It is sourced from table 1 of AMS.III.BG. It is fixed for the crediting period.
Net calorific value of wood (NCV_{wood})=0.015 TJ/tonne of wood	It is sourced from table 2 of AMS.III.BG. It is fixed for the crediting period.
Net calorific value of the charcoal type i produced during the project ($\text{NCV}_{\text{charcoal}}$)=29.5 GJ/tonne (monitored parameter)	As per table 8 of AMS.III.BG, it will be monitored through two options available to the CME. As per option 1, during the first year of the crediting period measurement on the charcoal calorific value of charcoal produced in the cookstove will be undertaken in laboratories according to relevant national/international standards. Samples will be taken monthly during one year from the stocks of charcoal collected from users before selling it to charcoal users/retailers. . As per the table, in case of charcoal generated from micro gasifier, Option 1 above or option 2 in 'appendix 1 of AMS.III.BG can be used. As per option 1-deemed value, equation 1 of appendix of AMS.III.BG, for For the charcoal from coconut husks, bamboo and other purely woody source of biomass, $\text{NCV}_{\text{charcoal}} = 29.5$ GJ/tonne. Since the monitoring procedure is deemed feasible, the validation team has accepted the same.
Default net calorific value of charcoal ($\text{NCV}_{\text{charcoal,default}}$)=29.5 GJ/tonne	As per table 3, it can be derermined based on appendix of AMS.III.BG. As per appendix, option 1, $\text{NCV}_{\text{charcoal,default}} = 29.5$ GJ/tonne
Fraction of woody biomass that can be established as non-renewable biomass ($f_{\text{NRB,BL,wood}}$) (ex-ante parameter)	As per equation 1 of AMS.III.BG, it will be determined as per procedure mentioned in AMS.I.E v9.0. As per table 10 of AMS.I.E, it will be determined as per the requirements of tool "Calculation of the fraction of non-renewable biomass" v2.0^{16/}. As per para 8 of the tool, f_{NRB} is calculated as follows. $f_{\text{NRB}} = \text{NRB} / (\text{NRB} + \text{RB})$ where NRB -Quantity of non-renewable biomass in the country/region or project area RB - Quantity of renewable biomass in the country/region or project area As per para 16 of the tool, the value of f_{NRB} for the country/region or project area shall be calculated ex ante i.e f_{NRB} value is determined once at the validation stage, thus no monitoring and recalculation of the f_{NRB} value during the crediting

	period is required. As per the PoA-DD, it will be determined for every CPA before validation. This is in line with para 35 of AMS.I.E v9.0.
Emission factor for the substitution of non-renewable woody biomass by similar consumers ($EF_{\text{projected_fossil fuel}} = 81.6 \text{ tCO}_2/\text{TJ}$) (ex-ante parameter)	It is sourced from table 4 of AMS.III.BG v3.0.
Specific methane generation for the baseline charcoal generation process in the year y ($SMG_{y,b} = 0.03 \text{ t}_{\text{CH}_4}/\text{t}_{\text{charcoal}}$) (ex-ante parameter)	It is sourced from equation 1 of AMS.III.BG v3.0.
Factor to account for any legal requirement for capture and destruction of methane in the charcoal production facility ($M_d = 0$) (ex-ante parameter)	As per table 6 of AMS.III.BG, for micro gasifier, it is zero.
Global warming potential of methane applicable to the crediting period ($GWP_{\text{CH}_4} = 25 \text{ tCO}_2\text{e}/\text{tCH}_4$) (ex-ante parameter)	CME has considered GWP of methane post 2012 as 25 which is accepted for the second commitment period which is in accordance with decision 4/CMP 7 as prescribed by the "Standard for application of the global warming potentials to CDM PA and PoA for the second commitment period of the Kyoto protocol" ^{17/n} Version 1.0 (EB 69 Annex 3). Decision 4/CMP 7 refers to table 2.14 of the errata to the contribution of Working Group I to the Fourth Assessment Report of the IPCC and time horizon of 100 years.
Fugitive emissions from operation of charcoal producing facility ($PE_{\text{fugitive},y}$)	As per para 22/equation 2 of AMS.III.BG, $PE_{\text{fugitive},y} = Q_{\text{CCP},i,y} \times GWP_{\text{CH}_4} \times SMG_{y,b} \times f$ Where $Q_{\text{CCP},i,y}$ - Quantity of charcoal type i produced and used in year y GWP_{CH_4} - Global warming potential of methane applicable to the crediting period $SMG_{y,b}$ - Specific methane generation for the baseline charcoal generation process in the year y f - fraction attributed to project charcoal production technology
Quantity of charcoal type i produced and used in year y ($Q_{\text{CCP},i,y}$)	It is already validated as above
Global warming potential of methane applicable to the crediting period ($GWP_{\text{CH}_4} = 25 \text{ tCO}_2\text{e}/\text{tCH}_4$)	It is already validated as above
Specific methane generation for the baseline charcoal generation process in the year y ($SMG_{y,b} = 0.03 \text{ t}_{\text{CH}_4}/\text{t}_{\text{charcoal}}$) (ex-ante parameter)	It is already validated as above
Fraction attributed to project charcoal production technology ($f = 0.1$) (ex-ante parameter)	As per para 22 of AMS.III.BG, $f = 0.1$
Emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year y ($PE_{\text{flaring},y} = 0 \text{ tCO}_2\text{e}/\text{year}$)	As per para 22 of AMS.III.BG v3.0, emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year y determined in accordance with the procedure provided in AMS-III.K. In case captured pyrolysis gas is gainfully used (e.g. as fuel for pre-heating the facility, or for wood drying, or used for production of heat and/or power

	as in the case of micro-gasifier), then it can be taken as zero.
Project emissions due to fossil fuel consumption in charcoal production facilities in year y ($PE_{FF,y}$)=0 tCO ₂ e/year	Since there will be no fossil fuel involved in the microgasifier, $PE_{FF,y}$ =0
Project emissions due to electricity consumption in charcoal production facilities in year y ($PE_{El,y}$)=0 tCO ₂ e/year	Since there will be no electricity involved in the microgasifier, $PE_{FF,y}$ =0
Project emissions due to biomass cultivation in year y ($PE_{BC,y}$)	$PE_{BC,y}$ is not applicable since no biomass will be cultivated for charcoal production since it is produced as a by-product of daily cooking
Leakage emissions (LE_y)=0 tCO ₂ e/year	As per para 25 of AMS.III.BG v3.0, General guidance on leakage in biomass project activities v3.0 shall be followed to quantify leakages pertaining to the use of biomass residues. As per the guidance on leakage in biomass project activities, CME assumed the following 1. Biomass type is biomass from forests. 2. Activity or source =New forest The validation team has accepted the same. For this category, there are two types of emission sources that are potentially significant attributable to the project. 1. Leakage emission due to shift of pre-project activities 2. Leakage emission related to the production of biomass. Since the land was not used or land use did not change due to the implementation of the project activity, the validation team accepted that leakage due to shifts in pre-project activities is zero. Since the project did not use biomass residues for production of biomass, leakage due to production of biomass is also zero. There is no competing use of biomass relevant to the project. Hence leakage is zero.
Emission reduction from AMS.I.E v9.0 component ($ER_{y,AMS.I.E}$)	As per para 27/equation 6 of AMS.I.E v9.0, emission reductions from the use of renewable biomass is calculated as follows $ER_y = BE_y - PE_y - LE_y$ Where BE_y-Baseline emissions PE_y-Project emissions LE_y- Leakage emissions The validation of the same is detailed below.
Baseline emissions (BE_y)	As per para 20/equation 1 of AMS.I.E v9.0, $BE_y = B_y \times f_{NRB} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$ Where B_y-Quantity of woody biomass that is substituted or displaced f_{NRB} -Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass $NCV_{biomass}$- Net calorific value of the non-renewable woody biomass that is substituted $EF_{projected\ fossil\ fuel}$-Emission factor for the substitution of non-renewable woody biomass by similar consumers

	The validation of the same is detailed below.
Quantity of woody biomass that is substituted or displaced (B_y)	As per the PoA-DD, if conventional fuel used in some or all of the project cook stoves distributed is replaced by renewable biomass, additional ER are possible. In a CPA it may also be specified that no ERs are claimed from the use of renewable biomass as fuel. As per para 21 of AMS.I.E, B_y is determined based on four options. CME has chosen equation 2. B_y is calculated as the product of the number of households multiplied by the estimate of average annual consumption of woody biomass per household that is displaced by the project activity. The average annual consumption of woody biomass per ICS is already monitored as per the requirements of AMS-II.G, as $B_{y=1,new,i,survey}$. Where RB is completely replacing fuelwood used in the ICS, $B_{i,E,y}$ can be determined as: As per equation 2, $B_y = B_{y=1,new,i,survey} \times N_{i,E,y}$ Where $B_{y=1,new,i,survey}$ -Quantity of woody biomass used by project devices in tonnes per device of type i and batch j $N_{i,E,y}$ - Number of appliances exclusively burning renewable biomass The validation of the same is detailed below.
Quantity of woody biomass used by project devices in tonnes per device of type i and batch j ($B_{y=1,new,i,survey}$)	It is already validated under AMS.II.G component.
(monitored parameter)	
Number of appliances exclusively burning renewable biomass ($N_{i,E,y}$)	As per the PoA-DD, $N_{i,E,y}$ will be determined from a database including all ICS users provided with RB during period y . $N_{i,E,y}$ will be a subset of $N_{y,i,j}$, i.e., only ICS users that are also considered for $ER_{II.G,y}$ will be considered for $ER_{i,E,y}$.
(monitored parameter)	
Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass (f_{NRB})	It is already validated as above
Net calorific value of the non-renewable woody biomass that is substituted ($NCV_{biomass}$) =0.0156 TJ/tonne	It is already validated as above
Emission factor for the substitution of non-renewable woody biomass by similar consumers ($EF_{projected fossil fuel}$)=63.7 tCO ₂ /TJ	It is already validated as above
Project emissions (PE _y)	As per para 22 of AMS.I.E v9.0, project emissions from cultivation, use and processing of biomass shall be calculated using the latest version of "TOOL16: Project and leakage emissions from biomass" v4.0^{18/}. The following sources to be considered. 1.CO₂ emissions from on-site consumption of fossil fuels due to the project activity ($PE_{FF,y}$) 2.CO₂ emissions from electricity consumption by the project activity ($PE_{EC,y}$) 3.Methane emission from solid waste disposal or waste water ($PE_{CH4,y}$) 4.Project emissions related to cultivation of feedstock ($PE_{feedstock,y}$) 5.Project emissions from transportation ($PE_{transportation,y}$)

CO2 emissions from on-site consumption of fossil fuels due to the project activity ($PE_{FF,y}$) =0 tCO2e/year	Since there is no fossil fuel used in the project cookstove, $PE_{FF,y}$ =0
CO2 emissions from electricity consumption by the project activity ($PE_{EC,y}$) =0 tCO2e/year	Since there is no electricity used in the project cookstove, $PE_{EC,y}$ =0
Methane emission from solid waste disposal or waste water ($PE_{CH4,y}$) =0 tCO2e/year	Since biomass is not stored for long time, $PE_{CH4,y}$ = 0 tCO2e
Project emissions related to cultivation of feedstock($PE_{feedstock,y}$) =0 tCO2e/year	Since there is no cultivation of feedstock, $PE_{feedstock,y}$ =0 tCO2e
Project emissions from transportation ($PE_{transporation,y}$) =0 tCO2e/year	Since the biomass is sourced locally, distance would be less than 200 km, hence $PE_{transporation,y}$ =0
Project emissions (PE_y) =0 tCO2e/year	As per para 22 of AMS.I.E v9.0, project emissions from cultivation, use and processing of biomass shall be calculated using the latest version of "TOOL16: Project and leakage emissions from biomass" v4.0 ^{/18/} .
Leakage emisisions (LE_y)=5% of BE_y	As per para 24 of AMS.I.E, the use/diversion of non-renewable woody biomass saved under the project activity by non-project households/users that previously used renewable energy sources. If this leakage assessment quantifies an increase in the use of non-renewable woody biomass used by the non-project households/users that is attributable to the project activity, then BE_y is adjusted to account for the quantified leakage. Alternatively, BE_y is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.
Emission reduction from AMS.I.E v9.0 component ($ER_{y,AMS.I.E}$)	As per para 27/equation 6 of AMS.I.E v9.0, emission reductions from the use of renewable biomass is calculated as follows $ER_y = BE_y - PE_y - LE_y$
Emission reduction achieved by the generic CPA 1 ($ER_{CPA1,y}$)	$ER_{CPA1,y} = ER_{AMS.II.G} + ER_{AMS.III.BG} + ER_{AMS.I.E}$

Generic CPA no 2:

Emission reduction achieved by the generic CPA 2 ($ER_{CPA2,y}$)	Generic CPA no 2: This CPA aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this component is calculated using the applied methodology AMS.II. G v10.0^{/3/}. The improved cook stoves would also generate charcoal as a by-product. The households would then supply/sale charcoal to the charcoal users/retailers. This would reduce the generation and consumption of conventional charcoal. The emission reduction from this component is calculated using the applied methodology AMS.III. BG v3.0^{/3/}. Hence, $ER_{CPA1,y} = ER_{AMS.II.G} + ER_{AMS.III.BG}$ Where $ER_{AMS.II.G}$ - Emission reduction from AMS.II.G component $ER_{AMS.III.BG}$ - Emission reduction from AMS.III. BG
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	v3.0 component The validation of emission reduction calculation for this CPA is detailed below.
Emission reduction from AMS.II.G component ($ER_{AMS.II.G}$)	As per para 21 of AMS.II.G v10.0, it is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. As per para 22/equation 1 of AMS.II.G v10.0, emission reduction is calculated as below $ER_{AMS.II.G,y} = \sum \sum ER_{y,i,j} - LE_y$ Where i-Indices for the situation where more than one type of project device is introduced to replace the pre-project devices j-Indices for the situation where there is more than one batch of project device $ER_{y,i,j}$ -Emission reductions by project device of type i and batch j during year y LE_y -Leakage emissions in the year y The validation of each is detailed below
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{\text{projected fossil fuel}}$ Where $B_{y,savings,i,y}$ -Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y $N_{y,i,j}$ -Number of project devices of type i and batch j operating during year y μ_y -Adjustment to account for any continued use of pre-project devices during the year y $f_{NRB,y}$ -Fraction of woody biomass that can be established as non-renewable biomass $NCV_{biomass}$ -Net calorific value of the non-renewable woody biomass that is substituted $EF_{\text{projected fossil fuel}}$ -Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers The validation of each is detailed below.
Quantity of woody biomass that is saved in tonnes per cookstove device of type i and batch j during year y ($B_{y,savings,i,y}$)	As per para 23 of AMS.II.G, $B_{y,savings,i,y}$ due to implementation of efficient thermal devices is estimated as per the four options. The validation team has checked the PoA-DD wherein CME has opted for option 3 (Water boiling test). As per para 27 of AMS.II.G v10.0, Under option 3, there are two equations (equation 6 and equation 7). CME considered equation 7. As per equation 7, $B_{y,savings,i,y} = B_{y=1,new,i,j,survey} \times (\eta_{new,i,j} / \eta_{old,i,j} - 1)$ Where $B_{y=1,new,i,j,survey}$ -Quantity of woody biomass used by project devices in tonnes per device of type i and batch j $\eta_{new,i,j}$ -Efficiency of the project device i and batch j $\eta_{old,i,j}$ -Efficiency of the old devices being replaced by project devices of type i and batch j The monitoring approach is valid for the PoA level which is in line with para 45 of AMS.II.G v10.0. The validation of each is detailed below.
Quantity of woody biomass used by project devices	As per para 29 of AMS.II.G v10.0, the calculations in

in tonnes per device of type i and batch j ($B_{y=1,new,i,j,survey}$) (monitored parameter)	the equations above assume that there is only one device per household. Since the CME is planned to disseminate project cookstove to households at a subsidised price, as a matter of policy, it would provide one project cookstove only to a household. However, if future CME decided to provide cook stoves to community or schools, the same would be adjusted according to the methodologies. No charcoal would be used in the baseline or project cookstove, so para 30 is not applicable. The lifetime of the project cookstove is 7 years as per the manufacturer specification. As per table 15 of AMS.II.G v10.0, the parameter shall be calculated in the first year of the introduction of the devices (e.g. during the first year of the crediting period, $y=1$) through sample measurement campaigns at representative households and/or sample survey. As per the PoA-DD, it would be calculated through sample survey based on number of canisters used per week (fillings) and weight of each canister(load). $B_{y=1,new,i,j,survey}$ = number of canisters used per week x weight of each canister or $B_{y=1,new,i,j,survey} = \text{fillings}_{y=1} * \text{load}_{y=1}$ Number of canisters would be determined by monitoring survey and weight of canister would be determined during WBT test. Only calibrated equipments would be used for measurements.
Efficiency of the project device i and batch j ($\eta_{new,i,j}$) (monitoring parameter) Loss of efficiency is determined from options a,b,c,d	As per table 11 of AMS.II.G v10.0, Efficiency shall be measured/estimated as per the following: 1.The efficiency of the project devices shall be based on certification by a national standards body or an appropriate certifying agent recognized by that body As per the PoA-DD, the efficiency is tested and confirmed by the testing center of the Ministry of Micro, Small & Medium Enterprises. As per table 11 of AMS.II.G v10.0, the sampling test of stoves by such certification bodies/agents or manufacturers shall be conducted following a 90/10 precision in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities"^{7/7} v7.0. However, the following simplified approach may be used, when the efficient cookstoves are produced by a manufacturer with a good quality management system in place to ensure that the individual equipment produced do not vary beyond the range of acceptance limits (e.g. characteristics such as materials, critical dimensions): (i) Conduct a sample test on three cookstoves with three tests conducted for each stove. The test can be carried out by project proponents by themselves or stove manufacturers; (ii) If the standard deviation of the nine test results indicated above is very small and 90/10 precision requirement is met (in this case, the value of the t-distribution for 90 per cent confidence shall be used instead of Z value), the efficiency determined is acceptable, otherwise more sample tests would be required until 90/10 precision is met.

	The loss of efficiency will be determined as per one of the 4 options as specified in para 32a,b,c,d. The parameter is measured by dedicated trained monitoring team based on WBT test under field conditions if option c is chosen. The efficiency of the project devices of the first batch will be monitored annually following the Water Boiling Test protocol version 4.2.3^{/15/}. WBT would not account of quantity of charcoal generated. WBTs will be conducted on randomly selected project cookstoves; the sample size of project cookstove testes will be large enough to meet the 90/10 requirements of the methodology. The validation team has interviewed the CME and accepted the monitoring approach as robust/feasible. As per para 32 of AMS.II.G, the loss in efficiency of the project devices i in each batch j due to aging shall be accounted during the monitoring period y. As option 3 was selected, the CME may choose any option mentioned in para 32 to account for the loss in efficiency. The option shall be identified and fixed ex ante in the PDD at the time of registration. As per the PoA-DD, CME has opted for option C i.e Determination of the rate of efficiency drop for a representative sample of the first batch of project device i in year y and assume that same rate of loss in efficiency applies to all other batches. In other words, it may be assumed that the degradation of efficiency measured in a representative sample of the first batch of project devices i apply to all subsequent batches. The efficiency of the project devices in the first batch has to be monitored annually through representative samples and this rate of loss in efficiency may be applied correspondingly to all batches.
Efficiency of the old devices being replaced by project devices of type i and batch j ($\eta_{old,i,j}$) = 10% (monitored parameter)	As per table 17 of AMS.II.G v10.0, it can be fixed for each individual household as default value. The validation team has interviewed the CME and accepted the value as correct.
Number of project devices of type i and batch j operating during year y ($N_{y,i,j}$) (monitored parameter) Statistically adjusted drop out from total population of ICS in period y ($DO_{II,G,y}$) (monitored parameter)	As per table 8 of AMS.II.G v10.0, it shall be determined measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision. If the survey shows 10% as non-operating, then an adjustment factor of 0.9 shall be applied to number of project devices commissioned in a particular batch. As per the PoA-DD, $N_{y,i,j} = N_{soldtotal,i,j} \times d_{average,y} / mlength_y$ Where $N_{soldtotal,i,j}$ -total number of ICS type i and batch j sold within monitoring period y It will be measured number of sales contracts stored and the corresponding number of entries of ICS sold in the database $d_{average,y}$ - average number of days the ICS sold in period y were operational in period y, derived from sales dates on sales contracts $mlength_y$ - length of monitoring period y

	Statistically adjusted drop out from total population of ICS in period y ($DO_{II.G,y}$) will be determined through sampling survey by dedicated monitoring team. This will be measured every two years as per the PoA-DD. The validation team has specified the sampling plan for this parameter which is correct, feasible.
Adjustment to account for any continued use of pre-project devices during the year y (μ_y) =1 (monitored parameter)	As per table 9 of AMS.II.G v10.0, as equation 7 is used for calculating $B_{y,savings}$, $\mu_y=1$. Hence accepted by the validation team.
Fraction of woody biomass that can be established as non-renewable biomass ($f_{NRB,y}$) (ex-ante parameter)	It will be determined as per the requirements of tool "Calculation of the fraction of non-renewable biomass" v2.0 ^{16/} . As per para 8 of the tool, f_{NRB} is calculated as follows. $f_{NRB} = NRB / (NRB + RB)$ where NRB - Quantity of non-renewable biomass in the country/region or project area RB - Quantity of renewable biomass in the country/region or project area As per para 16 of the tool, the value of f_{NRB} for the country/region or project area shall be calculated ex ante i.e f_{NRB} value is determined once at the validation stage, thus no monitoring and recalculation of the f_{NRB} value during the crediting period is required. As per the PoA-DD, it will be determined for every CPA before validation. This is in line with para 44¶ 45 of AMS.II.G v10.0.
Net calorific value of the non-renewable woody biomass that is substituted ($NCV_{biomass}$) =0.0156 TJ/tonne of wood (ex-ante parameter)	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers ($EF_{projected_fossil_fuel}$) =63.7 tCO2/TJ	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil_fuel}$
Leakage emissions per year (LE_y)	As per para 34 of AMS.II.G v10.0, Leakage related to the non-renewable woody biomass saved by the project activity shall be assessed based on ex post surveys of users and the areas from which this woody biomass is sourced. Alternatively, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. As per para 43 of AMS.II.G v10.0, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages. As per para 35, Project activities switching from baseline device using firewood to efficient project device using charcoal or switching from firewood to efficient project device using processed biomass (briquette, pellets, and woodchips) shall take into account the leakage effects related to the charcoal or

	processed biomass production. Since this is not the case in this PoA, leakage from this source is zero.
Emission reductions by project device of type <i>i</i> and batch <i>j</i> during year <i>y</i> ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0 can be written as $ER_{y,i,j} = B_{y,savings,i,y} \times 0.95 \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$
Rated thermal capacity as per manufacturer specification (ex-ante parameter)	This is sourced from technical specification of project cookstove. Hence accepted.
Number of hours of utilization of the device during the year <i>y</i> (monitoring parameter)	As per table 10 of AMS.II.G v10.0, this parameter is monitored at least once in every two years. The biennial survey shall follow a 95 per cent confidence interval and a 10 per cent margin of error.
Life span	As per table 18 of AMS.II.G v10.0, since option 3 is chosen by the CME for determining $B_{y,savings,y}$, the operating life time of the project device. should be monitored. Hence accepted.
Date of commissioning of batch <i>j</i>	As per table 19 of AMS.II.G v10.0, to establish the date of commissioning, the CME may opt to group the devices in "batches" and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch. Hence accepted.
Date of commissioning of project device <i>i</i>	It is determined at the time of sale of project cookstove. It is fixed and recorded at the time of distribution of project cookstove.
Emission reduction from AMS.III. BG v3.0 component ($ER_{AMS.III. BG,y}$)	As per para 21 of AMS.III.BG v3.0, for the project technology equipped with capture and destruction of the pyrolysis gases, including micro-gasifier, emission reductions are calculated as follows. $ER_{AMS.III. BG,y} = \sum Q_{CCP,i,y} \times [(CF \times NCV_{wood} \times NCV_{charcoal,i} / NCV_{charcoal,default} \times f_{NRB,BL,wood} \times EF_{projected_fossil\ fuel}) + (SMG_{y,b} - M_d) \times (1 - f_{NRB,BL,wood}) \times GWP_{CH4}] - PE_{y,fugitive} - PE_{y,flaring} - PE_{FF,y} - PE_{El,y} - PE_{BC,y}$ Where $Q_{CCP,i,y}$ -Quantity of charcoal type <i>i</i> produced and used in year <i>y</i> CF-Default wood to charcoal conversion factor NCV_{wood} -Net calorific value of wood $NCV_{charcoal,i}$ -Net calorific value of the charcoal type <i>i</i> produced during the project $NCV_{charcoal,default}$ -Default net calorific value of charcoal $f_{NRB,BL,wood}$ -Fraction of biomass of type <i>i</i> used in the absence of the project activity that can be established as non-renewable biomass $EF_{projected_fossil\ fuel}$ -Emission factor for the substitution of non-renewable woody biomass by similar consumers $SMG_{y,b}$ -Specific methane generation for the baseline charcoal generation process in the year <i>y</i> M_d -Factor to account for any legal requirement for capture and destruction of methane in the charcoal production facility GWP_{CH4} -Global warming potential of methane applicable to the crediting period $PE_{y,fugitive}$ -Fugitive emissions from operation of charcoal producing facility $PE_{y,flaring}$ -Emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year <i>y</i>

	PE_{FF,y} -Project emissions due to fossil fuel consumption in charcoal production facilities in year y PE_{EI,y} -Project emissions due to electricity consumption in charcoal production facilities in year y PE_{BC,y} -Project emissions due to biomass cultivation in year y The validation of the same is detailed below.
Quantity of charcoal type <i>i</i> produced and used in year <i>y</i> (Q_{CCP,i,y}) (monitored parameter)	As per table 7 of AMS.III.BG v3.0, The parameter can be monitored according to one of the following options: Option1: Direct measurement (e.g. use of a scale) of the weight of charcoal products supplied; Option 2: Calculation of the total weight of charcoal supplied; based on the total number of bags supplied and the average weight of charcoal product per bag. The weight of charcoal products per bag is determined on sample basis in accordance with the sampling standard (e.g. using systematic sampling method). Option 2 can only be used if Option 1 is not available. Charcoal generated from only woody biomass is eligible for the case of micro-gasifier As per the PoA-DD, the parameter will be monitored according to one of the following options: Option1: Direct measurement (e.g. use of a scale) of the weight of charcoal products supplied; at the site of the charcoal users or retailers Option 2: Calculation of the total weight of charcoal supplied; based on the total number of bags supplied (e.g. using systematic sampling method). Option 2 will only be used if Option 1 is not available. Q_{CCP,i,y} will be derived from invoices/receipts of sales of charcoal generated in the CPA to charcoal users and retailers. If feasible, the weight of charcoal delivered will be indicated on invoices, requiring the availability of calibrated weighbridges or other scales. Where invoicing to charcoal buyers cannot based on the exact weight but on the number of bags delivered, the following formula will apply: $Q_{CCP,i,y} = \text{weightbags}_{y,i} * \text{nbags}_{y,i}$ Where: weightbags_{y,i} - average weight of bags of charcoal type <i>i</i> in period <i>y</i> This will be determined on sample basis in accordance with the sampling standard nbags_{y,i} -total number of bags of charcoal type <i>i</i> in period <i>y</i> This will be determined based on invoices/receipts of charcoal buyers. Charcoal is sold to households, SMEs, group of households served by a charcoal market.
Default wood to charcoal conversion factor (CF) =6	It is sourced from table 1 of AMS.III.BG. It is fixed for the crediting period.

(ex-ante parameter)	
Net calorific value of wood (NCV_{wood})=0.015 TJ/tonne of wood	It is sourced from table 2 of AMS.III.BG. It is fixed for the crediting period.
Net calorific value of the charcoal type <i>i</i> produced during the project ($NCV_{charcoal}$)=29.5 GJ/tonne (monitored parameter)	As per table 8 of AMS.III.BG, it will be monitored through two options available to the CME. As per option 1, during the first year of the crediting period measurement on the charcoal calorific value of charcoal produced in the cookstove will be undertaken in laboratories according to relevant national/international standards. Samples will be taken monthly during one year from the stocks of charcoal collected from users before selling it to charcoal users/retailers. . As per the table, in case of charcoal generated from micro gasifier, Option 1 above or option 2 in 'appendix 1 of AMS.III.BG can be used. As per option 1-deemed value, equation 1 of appendix of AMS.III.BG, for For the charcoal from coconut husks, bamboo and other purely woody source of biomass, $NCV_{charcoal}$ =29.5 GJ/tonne. Since the monitoring procedure is deemed feasible, the validation team has accepted the same.
Default net calorific value of charcoal ($NCV_{charcoal, default}$)=29.5 GJ/tonne	As per table 3, it can be derermined based on appendix of AMS.III.BG. As per appendix, option 1, $NCV_{charcoal, default}$ =29.5 GJ/tonne
Fraction of woody biomass that can be established as non-renewable biomass ($f_{NRB, BL, wood}$) (ex-ante parameter)	As per equation 1 of AMS.III.BG, it will be determined as per procedure mentioned in AMS.I.E v9.0. As per table 10 of AMS.I.E, it will be determined as per the requirements of tool "Calculation of the fraction of non-renewable biomass" v2.0^{16/}. As per para 8 of the tool, fNRB is calculated as follows. $fNRB = NRB / (NRB + RB)$ where NRB -Quantity of non-renewable biomass in the country/region or project area RB - Quantity of renewable biomass in the country/region or project area As per para 16 of the tool, the value of fNRB for the country/region or project area shall be calculated ex ante i.e fNRB value is determined once at the validation stage, thus no monitoring and recalculation of the fNRB value during the crediting period is required. As per the PoA-DD, it will be determined for every CPA before validation. This is in line with para 35 of AMS.I.E v9.0.
Emission factor for the substitution of non-renewable woody biomass by similar consumers ($EF_{projected_fossil\ fuel}$) =81.6 tCO ₂ /TJ (ex-ante parameter)	It is sourced from table 4 of AMS.III.BG v3.0.
Specific methane generation for the baseline charcoal generation process in the year y ($SMG_{y,b}$) =0.03 t _{CH₄} /t _{charcoal} (ex-ante parameter)	It is sourced from equation 1 of AMS.III.BG v3.0.
Factor to account for any legal requirement for capture and destruction of methane in the charcoal production facility (M_d)=0	As per table 6 of AMS.III.BG, for micro gasifier, it is zero.

(ex-ante parameter)	
Global warming potential of methane applicable to the crediting period (GWP_{CH_4}) =25 tCO ₂ e/tCH ₄	CME has considered GWP of methane post 2012 as 25 which is accepted for the second commitment period which is in accordance with decision 4/CMP 7 as prescribed by the "Standard for application of the global warming potentials to CDM PA and PoA for the second commitment period of the Kyoto protocol" ^{17/n} Version 1.0 (EB 69 Annex 3). Decision 4/CMP 7 refers to table 2.14 of the errata to the contribution of Working Group I to the Fourth Assessment Report of the IPCC and time horizon of 100 years.
(ex-ante parameter)	
Fugitive emissions from operation of charcoal producing facility ($PE_{fugitive,y}$)	As per para 22/equation 2 of AMS.III.BG, $PE_{fugitive,y} = Q_{CCP,i,y} \times GWP_{CH_4} \times SMG_{y,b} \times f$ Where $Q_{CCP,i,y}$ - Quantity of charcoal type i produced and used in year y GWP_{CH_4} - Global warming potential of methane applicable to the crediting period $SMG_{y,b}$ - Specific methane generation for the baseline charcoal generation process in the year y f -fraction attributed to project charcoal production technology
Quantity of charcoal type i produced and used in year y ($Q_{CCP,i,y}$)	It is already validated as above
Global warming potential of methane applicable to the crediting period (GWP_{CH_4}) =25 tCO ₂ e/tCH ₄	It is already validated as above
Specific methane generation for the baseline charcoal generation process in the year y ($SMG_{y,b}$) =0.03 t _{CH₄} /t _{charcoal}	It is already validated as above
(ex-ante parameter)	
Fraction attributed to project charcoal production technology (f) =0.1	As per para 22 of AMS.III.BG, f =0.1
(ex-ante parameter)	
Emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year y ($PE_{flaring,y}$) =0 tCO ₂ e/ year	As per para 22 of AMS.III.BG v3.0, emissions due to the flare inefficiency in the project charcoal manufacturing plant in the year y determined in accordance with the procedure provided in AMS-III.K. In case captured pyrolysis gas is gainfully used (e.g. as fuel for pre-heating the facility, or for wood drying, or used for production of heat and/or power as in the case of micro-gasifier), then it can be taken as zero.
Project emissions due to fossil fuel consumption in charcoal production facilities in year y ($PE_{FF,y}$)=0 tCO ₂ e/year	Since there will be no fossil fuel involved in the microgasifier, $PE_{FF,y}$ =0
Project emissions due to electricity consumption in charcoal production facilities in year y ($PE_{EI,y}$)=0 tCO ₂ e/year	Since there will be no electricity involved in the microgasifier, $PE_{FF,y}$ =0
Project emissions due to biomass cultivation in year y ($PE_{BC,y}$)	$PE_{BC,y}$ is not applicable since no biomass will be cultivated for charcoal production since it is produced as a by-product of daily cooking
Leakage emissions (LE_y)=0 tCO ₂ e/year	As per para 25 of AMS.III.BG v3.0, General guidance on leakage in biomass project activities v3.0 shall be followed to quantify leakages pertaining to the use of biomass residues. As per the guidance on leakage in biomass project activities, CME assumed the following

	1. Biomass type is biomass from forests. 2. Activity or source = New forest The validation team has accepted the same. For this category, there are two types of emission sources that are potentially significant attributable to the project. 1. Leakage emission due to shift of pre-project activities 2. Leakage emission related to the production of biomass. Since the land was not used or land use did not change due to the implementation of the project activity, the validation team accepted that leakage due to shifts in pre-project activities is zero. Since the project did not use biomass residues for production of biomass, leakage due to production of biomass is also zero. There is no competing use of biomass relevant to the project. Hence leakage is zero.
Emission reduction achieved by the generic CPA 1 ($ER_{CPA2,y}$)	$ER_{CPA2,y} = ER_{AMS.II.G} + ER_{AMS.III.BG}$

Generic CPA no 3:

Emission reduction achieved by the generic CPA 3 ($ER_{CPA3,y}$)	Generic CPA no 3: This CPA aims at reducing the fuel wood consumption by supplying improved cook stoves to the targeted households replacing the traditional cook stoves. The emission reduction from this component is calculated using the applied methodology AMS.II. G v10.0. Hence, $ER_{CPA3,y} = ER_{AMS.II.G}$ Where $ER_{AMS.II.G}$ - Emission reduction from AMS.II.G component The validation of emission reduction calculation for this CPA is detailed below.
Emission reduction from AMS.II.G component ($ER_{AMS.II.G}$)	As per para 21 of AMS.II.G v10.0, it is assumed that in the absence of the project activity, the baseline scenario would be the projected use of fossil fuels to meet similar thermal energy needs as those provided by the project devices. As per para 22/equation 1 of AMS.II.G v10.0, emission reduction is calculated as below $ER_{AMS.II.G,y} = \sum \sum ER_{y,i,j} - LE_y$ Where i-Indices for the situation where more than one type of project device is introduced to replace the pre-project devices j-Indices for the situation where there is more than one batch of project device $ER_{y,i,j}$ - Emission reductions by project device of type i and batch j during year y

	LE_y -Leakage emissions in the year y The validation of each is detailed below
Emission reductions by project device of type <i>i</i> and batch <i>j</i> during year <i>y</i> (ER _{y,i,j})	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$ Where B_{y,savings,i,y} -Quantity of woody biomass that is saved in tonnes per cookstove device of type <i>i</i> and batch <i>j</i> during year <i>y</i> N_{y,i,j} -Number of project devices of type <i>i</i> and batch <i>j</i> operating during year <i>y</i> μ_y -Adjustment to account for any continued use of pre-project devices during the year <i>y</i> f_{NRB,y} -Fraction of woody biomass that can be established as non-renewable biomass NCV_{biomass} -Net calorific value of the non-renewable woody biomass that is substituted EF_{projected fossil fuel} -Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers The validation of each is detailed below.
Quantity of woody biomass that is saved in tonnes per cookstove device of type <i>i</i> and batch <i>j</i> during year <i>y</i> (B _{y,savings,i,y})	As per para 23 of AMS.II.G, B_{y,savings,i,y} due to implementation of efficient thermal devices is estimated as per the four options. The validation team has checked the PoA-DD wherein CME has opted for option 3 (Water boiling test). As per para 27 of AMS.II.G v10.0, Under option 3, there are two equations (equation 6 and equation 7). CME considered equation 7. As per equation 7, $B_{y,savings,i,y} = B_{y=1,new,i,j,survey} \times (\eta_{new,i,j} / \eta_{old,i,j} - 1)$ Where B_{y=1,new,i,j,survey} -Quantity of woody biomass used by project devices in tonnes per device of type <i>i</i> and batch <i>j</i> η_{new,i,j} -Efficiency of the project device <i>i</i> and batch <i>j</i> η_{old,i,j} -Efficiency of the old devices being replaced by project devices of type <i>i</i> and batch <i>j</i> The monitoring approach is valid for the PoA level which is in line with para 45 of AMS.II.G v10.0. The validation of each is detailed below.
Quantity of woody biomass used by project devices in tonnes per device of type <i>i</i> and batch <i>j</i> (B _{y=1,new,i,j,survey}) (monitored parameter)	As per para 29 of AMS.II.G v10.0, the calculations in the equations above assume that there is only one device per household. Since the CME is planned to disseminate project cookstove to households at a subsidised price, as a matter of policy, it would provide one project cookstove only to a household. However, if future CME decided to provide project cook stoves to community or schools, the same would be adjusted accordingly as per the methodology. No charcoal would be used in the baseline or project cookstove, so para 30 is not applicable. The lifetime of the project cookstove is 7 years as per the manufacturer specification. As per table 15 of AMS.II.G v10.0, the parameter shall be calculated in the first year of the introduction of the devices (e.g. during the first year of the crediting period, y=1) through sample measurement campaigns at representative

	households and/or sample survey. As per the PoA-DD, it would be calculated through sample survey based on number of canisters used per week (fillings) and weight of each canister(load). $B_{y=1,new,i,j,survey}$ = number of canisters used per week x weight of each canister or $B_{y=1,new,i,j,survey} = fillings_{y=1} * load_{y=1}$ Number of canisters would be determined by monitoring survey and weight of canister would be determined during WBT test. Only calibrated equipments would be used for measurements.
Efficiency of the project device i and batch j ($\eta_{new,i,j}$) (monitoring parameter) Loss of efficiency is determined from options a,b,c,d	As per table 11 of AMS.II.G v10.0, Efficiency shall be measured/estimated as per the following: 1.The efficiency of the project devices shall be based on certification by a national standards body or an appropriate certifying agent recognized by that body As per the PoA-DD, the efficiency is tested and confirmed by the testing center of the Ministry of Micro, Small & Medium Enterprises. As per table 11 of AMS.II.G v10.0, the sampling test of stoves by such certification bodies/agents or manufacturers shall be conducted following a 90/10 precision in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities. However, the following simplified approach may be used, when the efficient cookstoves are produced by a manufacturer with a good quality management system in place to ensure that the individual equipment produced do not vary beyond the range of acceptance limits (e.g. characteristics such as materials, critical dimensions): (i) Conduct a sample test on three cookstoves with three tests conducted for each stove. The test can be carried out by project proponents by themselves or stove manufacturers; (ii) If the standard deviation of the nine test results indicated above is very small and 90/10 precision requirement is met (in this case, the value of the t-distribution for 90 per cent confidence shall be used instead of Z value), the efficiency determined is acceptable, otherwise more sample tests would be required until 90/10 precision is met. The loss of efficiency will be determined as per one of the 4 options as specified in para 32a,b,c,d. The parameter is measured by dedicated trained monitoring team based on WBT test under field conditions if option c is chosen.. The efficiency of the project devices of the first batch will be monitored annually following the Water Boiling Test protocol version 4.2.3. WBT would not account of quantity of charcoal generated. WBTs will be conducted on randomly selected project cookstoves; the sample size of project cookstove testes will be large enough to meet the 90/10 requirements of the methodology. The validation team has interviewed the CME and accepted the monitoring approach as robust/feasible. As per para 32 of AMS.II.G, the loss in efficiency of the project devices i in each batch j due to aging shall be accounted during the monitoring period y.

	As option 3 was selected, the CME may choose any option mentioned in para 32 to account for the loss in efficiency. The option shall be identified and fixed ex ante in the PDD at the time of registration. As per the PoA-DD, CME has opted for option C i.e Determination of the rate of efficiency drop for a representative sample of the first batch of project device i in year y and assume that same rate of loss in efficiency applies to all other batches. In other words, it may be assumed that the degradation of efficiency measured in a representative sample of the first batch of project devices i apply to all subsequent batches. The efficiency of the project devices in the first batch has to be monitored annually through representative samples and this rate of loss in efficiency may be applied correspondingly to all batches.
Efficiency of the old devices being replaced by project devices of type i and batch j ($\eta_{old,i,j}$) = 10% (monitored parameter)	As per table 17 of AMS.II.G v10.0, it can be fixed for each individual household as default value. The validation team has interviewed the CME and accepted the value as correct.
Number of project devices of type i and batch j operating during year y ($N_{y,i,j}$) (monitored parameter) Statistically adjusted drop out from total population of ICS in period y ($DO_{II,G,y}$) (monitored parameter)	As per table 8 of AMS.II.G v10.0, it shall be determined measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision. If the survey shows 10% as non-operating, then an adjustment factor of 0.9 shall be applied to number of project devices commissioned in a particular batch. As per the PoA-DD, $N_{y,i,j} = N_{soldtotaly,i,j} \times d_{average,y} / mlength_y$ Where $N_{soldtotaly,i,j}$ -total number of ICS type i and batch j sold within monitoring period y It will be measured number of sales contracts stored and the corresponding number of entries of ICS sold in the database $d_{average,y}$ - average number of days the ICS sold in period y were operational in period y, derived from sales dates on sales contracts $mlength_y$ - length of monitoring period y Statistically adjusted drop out from total population of ICS in period y ($DO_{II,G,y}$) will be determined through sampling survey by dedicated monitoring team. This will be measured every two years as per the PoA-DD. The validation team has specified the sampling plan for this parameter which is correct, feasible.
Adjustment to account for any continued use of pre-project devices during the year y (μ_y) =1 (monitored parameter)	As per table 9 of AMS.II.G v10.0, as equation 7 is used for calculating $B_{y,savings}$, $\mu_y=1$. Hence accepted by the validation team.
Fraction of woody biomass that can be established as non-renewable biomass ($f_{NRB,y}$) (ex-ante parameter)	It will be determined as per the requirements of tool "Calculation of the fraction of non-renewable biomass" v2.0^{16/}. As per para 8 of the tool, f_{NRB} is calculated as follows. $f_{NRB} = NRB / (NRB + RB)$ where NRB -Quantity of non-renewable biomass in the

	country/region or project area RB - Quantity of renewable biomass in the country/region or project area As per para 16 of the tool, the value of fNRB for the country/region or project area shall be calculated ex ante i.e fNRB value is determined once at the validation stage, thus no monitoring and recalculation of the fNRB value during the crediting period is required. As per the PoA-DD, it will be determined for every CPA before validation. This is in line with para 44&para 45 of AMS.II.G v10.0.
Net calorific value of the non-renewable woody biomass that is substituted ($NCV_{biomass}$) =0.0156 TJ/tonne of wood (ex-ante parameter)	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers ($EF_{projected_fossil\ fuel}$) =63.7 tCO₂/TJ	It is sourced from para 22/equation 2 of AMS.II.G. Hence accepted.
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0, $ER_{y,i,j} = B_{y,savings,i,y} \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$
Leakage emissions per year (LE_y)	As per para 34 of AMS.II.G v10.0, Leakage related to the non-renewable woody biomass saved by the project activity shall be assessed based on ex post surveys of users and the areas from which this woody biomass is sourced. Alternatively, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. As per para 43 of AMS.II.G v10.0, $B_{y,savings,i,y}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakages. As per para 35, Project activities switching from baseline device using firewood to efficient project device using charcoal or switching from firewood to efficient project device using processed biomass (briquette, pellets, and woodchips) shall take into account the leakage effects related to the charcoal or processed biomass production. Since this is not the case in this PoA, leakage from this source is zero.
Emission reductions by project device of type i and batch j during year y ($ER_{y,i,j}$)	As per equation 2 of AMS.II.G v10.0 can be written as $ER_{y,i,j} = B_{y,savings,i,y} \times 0.95 \times N_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\ fossil\ fuel}$
Rated thermal capacity as per manufacturer specification (ex-ante parameter)	This is sourced from technical specification of project cookstove. Hence accepted.
Number of hours of utilization of the device during the year y (monitoring parameter)	As per table 10 of AMS.II.G v10.0, this parameter is monitored at least once in every two years. The biennial survey shall follow a 95 per cent confidence interval and a 10 per cent margin of error.
Life span	As per table 18 of AMS.II.G v10.0, since option 3 is chosen by the CME for determining $B_{y,savings,y}$, the operating life time of the project device. should be monitored. Hence accepted.
Date of commissioning of batch j	As per table 19 of AMS.II.G v10.0, to establish the

	date of commissioning, the CME may opt to group the devices in “batches” and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch. Hence accepted.
Date of commissioning of project device i	It is determined at the time of sale of project cookstove. It is fixed and recorded at the time of distribution of project cookstove.
Emission reduction achieved by the generic CPA 3 ($ER_{CPA3,y}$)	$ER_{CPA3,y} = ER_{AMS,II,G}$

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Document information

Version	Date	Description
03.0	31 May 2019	Revision to: •Ensure consistency with version 02.0 of the “CDM validation and verification standard for programmes of activities” (CDM-EB93-A08-STAN); •Make editorial improvements.
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).
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