

PoA Title	Paradigm Sub Saharan Africa Cook Stove Programme
Real Case CPA Title(s)	Paradigm Cook Stove Programme: Ethiopia 01 (TPP-CPA-01-ETH) Paradigm Cook Stove Programme: Rwanda 01 (TPP-CPA-01-RWN)
ERM CVS Project Reference	2431.V1
Client Name	The Paradigm Project
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CDM Validation Report

ERM Certification and Verification Services

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Version Control	Date
Version 1.0	15 February 2013 (draft report)
Version 2.0	01 July 2013 (final report)

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Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CH ₄	Methane
CL	Clarification request
CME	Coordinating/Managing Entity
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COP	Conference of the Parties
CPA	Component PoA
CPA-DD	CPA Design Document
DNA	Designated National Authority
FAR	Forward Action Request
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
FSR	Feasibility Study Report
GHG	Greenhouse Gas
GSC	Global Stakeholder Consultation
GWP	Global Warming Potential
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
LoA	Letter of approval
MOP	Meeting of the Parties
MP	Monitoring Plan
MW/MWh	Mega Watt/Mega Watt hour
NCV	Net Calorific Value
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OM	Operating Margin
PCP	Project Cycle Procedure
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added tax
VVS	CDM Validation and Verification Standard

PoA/Party specific abbreviations

ICS	Improved Cooking Stove
TPP	The Paradigm Project
WBT	Water Boiling Test

1 PoA Information

1.1 Key PoA information

PoA Title	Paradigm Sub Saharan Africa Cook Stove Programme
PoA Location(s)	The Republic of Rwanda and The Federal Democratic Republic of Ethiopia
Host Parties	The Republic of Rwanda The Federal Democratic Republic of Ethiopia
Other Party(ies)	None
CME	The Paradigm Project
Other Project Participants	Not applicable

Methodology(ies) used	AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass - Version 5.0 Methodology is valid from 07 December 2012 onwards
Methodological tool(s) used	Not applicable
Sectoral Scope(s) (as per http://cdm.unfccc.int/DOE/scopes.html)	3: Energy demand


PoA Design Document GSC Version	Date: 18 March 2012	PoA Design Document Final Version	Date: 26 June 2013
	Version Number: 01		Version Number: 08

Starting date of the PoA	30 October 2012
Lifetime of the PoA	28 years

Dates of GSC	30 October 2012 - 28 November 2012
Date(s) of validation site visit	21-25 January 2013

1.2 Summary and Validation Opinion

PoA Title	Paradigm Sub Saharan Africa Cook Stove Programme
Name of Client	The Paradigm Project
Basis of validation	<p>ERM CVS based its validation work on:</p> <ul style="list-style-type: none"> • CDM approved monitoring methodology AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass - Version 5.0 • CDM Validation and Verification Standard (version 03.0) • ERM CVS's internal CDM validation methodologies and templates • CDM decisions and guidance issued by the CDM Executive Board • UNFCCC criteria for the Clean Development Mechanism • Host Country criteria for the Clean Development Mechanism
Responsibilities of ERM CVS	ERM CVS is responsible to provide a thorough independent third party assessment of the proposed CDM programme of activities (PoA) to ensure that the proposed CDM PoA meets all the identified and applicable criteria for registration of PoA under the CDM.
Responsibilities of Project participants	The Project Participants (PPs) are responsible for preparing the PoA-DD (covered in this validation report), two real case CPA-DDs (covered in separate validation reports), supporting documentation and providing all necessary evidences to support the information included in the PoA-DD and real case CPA-DDs.
Activities performed	<p>ERM CVS conducted its activities in accordance with the CDM Validation and Verification Standard. The validation consisted of a review of project documentation, a site visit, interviews with relevant personnel, cross checking information through other reliable sources and reporting. Validation work was based on a validation report template that sets out relevant CDM requirements. Where necessary, Clarification Requests and Corrective Action Requests were raised and closed out with the Project participants. The validation work was subject to detailed Technical Review and assessment prior to submission.</p> <p>No component of the PoA was excluded from the validation.</p>
ERM CVS Conclusion	<p>ERM Certification and Verification Services (ERM CVS) has performed the validation of the programme of activities proposed to be registered as a single CDM PoA against the criteria for the Clean Development Mechanism as set out by the Conference of the Parties and the UNFCCC CDM Executive Board, and host country criteria. The validation employed standard auditing techniques, and addressed the requirements of the CDM Validation and Verification Standard.</p> <p>The Parties involved in the project fulfil the criteria for participation in the CDM, and have issued a letter of approval (LoA) for the PoA and authorised the CME and the Project Participants. The LoA of the host Party confirms the contribution of the PoA towards sustainable development.</p> <p>The validation has provided sufficient evidence to demonstrate that the PoA is not the baseline scenario, and that emission reductions would be additional to what would have taken place in the absence of the CDM PoA.</p> <p>The PoA meets the applicability criteria and correctly applies methodology AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass - Version 5.0, and is therefore expected to result in real, measurable and long term reductions in greenhouse gas emissions.</p> <p>The monitoring plan provides for the collection and archiving of data sufficient to ensure that emission reductions can be verified. The DNA of the host Party has confirmed that the PoA assists in meeting sustainable development criteria.</p> <p>The description of the programme of activities includes verifiable eligibility criteria for inclusion of project activities as CDM programme activities (CPAs) under this PoA, and appropriate operational and</p>

	<p>management arrangements have been established for the implementation of the PoA.</p> <p>In summary, it is the opinion of ERM CVS that the PoA as described in the PoA-DD Version 08 of 26 June 2013, meets all stated criteria of the CDM, correctly applies the methodology, and is expected to result in real, measurable and long term emission reductions.</p> <p>ERM CVS therefore requests the CDM Executive Board approves registration of the programme of activities.</p>
Signed on behalf of ERM CVS	
Name:	Melanie Eddis
Date:	01 July 2013

2 Introduction

2.1 Validation Objectives

The purpose of validation is to ensure a thorough, independent assessment of activities submitted for registration as a proposed CDM Programme of Activities (PoA) against the applicable CDM requirements.

The DOE is responsible for reporting the results of its assessment in a validation report and submitting this validation report, along with the supporting documents to the CDM Executive Board as part of the request for registration of a proposed CDM programme of activities.

The DOE also presents its opinion on the compliance of the proposed CDM PoA with the applicable CDM requirements, and only requests registration if this is a positive opinion.

In the course of validation, ERM CVS assesses additionality of the PoA; eligibility criteria for inclusion of a proposed CPA in the registered PoA; operational and management arrangements established by the coordinating/managing entity (CME) for the implementation of the PoA; applicability of an approved CDM methodology; monitoring plan (MP); compliance with the relevant host country criteria.

2.1.1.1 Validation Criteria

ERM CVS applies the following principles in performing its validation:

- Consistency
- Transparency
- Impartiality, independence and safeguarding against conflicts of interest
- Confidentiality

In all aspects of its work, ERM CVS ensures that the information and data reported are accurate, conservative, relevant, credible, reliable and complete.

2.2 Scope

The validation scope addresses the Programme of Activities as described in the Programme of Activities design document (PoA-DD), first real case CPA-DD(s) and associated documentation. The PoA-DD and associated documentation are reviewed against the criteria and requirements stated in the CDM Validation and Verification Standard (VVS) and Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, as well as relevant decisions made by the CDM Executive Board.

The validation scope also included an assessment of completeness and accuracy of documentation, evaluation of evidences, information and assumptions made in the PoA-DD and supporting documentation.

2.3 Contract Review

Prior to contracting with the client, a full review of the project and the validation requirements was made. This addressed both commercial risk and project risks associated with conducting the validation activities and confirmed the availability of an appropriately qualified team to conduct the validation.

2.4 Validation Personnel

Based on ERM CVS's review of the project, a validation team was established that takes into account the coverage of the technical area(s), sectoral scope(s) and relevant host country experience.

Personnel who were involved in the validation of this PoA were:

Validation Team

Name	Role	CDM Requirements	Technical area	Financial Expertise	Participated in site visit?
Jonathan Avis	Team Leader	Yes	Partially competent	Not applicable	Yes
Neringa Pumputyte	Support validator	Yes	Fully competent	Not applicable	Yes

DOE Head Office

Name	Role	CDM Requirements	Knowledge relevant to the technical area
Miguel Cortes	Technical Reviewer	Yes	Yes

2.5 Summary of CVs of the validation personnel

Jonathan Avis is CDM Business Manager for ERM CVS, and a GHG Assessor and Technical Reviewer with over 6 years' experience in the CDM. Since joining ERM CVS Jonathan has worked as a Technical Reviewer or GHG Assessor on more than 30 CDM validations in Renewable Energy (scope 1), more than 10 CDM validations in Manufacturing Industries (scope 04), 6 CDM validations in Mining (scope 8), and 5 CDM validations in Waste Handling and Disposal (scope 13). Jonathan's previous work experience involved screening and due diligence of carbon projects, Project Design Document (PDD) development, quality assurance and technical review of CDM project documentation, the development of carbon monitoring plans, and management of carbon projects through the validation, registration and verification stages. Jonathan has completed the ERM CVS CDM training as well as the GHGMI Renewable Energy training and Gold Standard training. Jonathan holds a BA in Geography and an MSc in Environmental Change and Management from the University of Oxford.

Neringa Pumputyte has been working with CDM and Gold Standard for the past 4 years, initially as a consultant and project developer and now as a validator and verifier. Neringa has carried out 15 validations and verifications for CDM and Gold Standard as an assessor in the sectors of energy efficiency, renewable energy, LFG, and fugitive emissions (oil and gas). Before joining ERM CVS, Neringa worked on hydro and cook stove projects as well as numerous waste handling projects as a CDM project developer. Neringa has completed the ERM CVS CDM training, as well as gold standard methodology training. Neringa also has a BSc and MSc in Geography, and an MSc in Environmental Change and Management from the University of Oxford.

Miguel Cortes has 8 years of CDM experience, 5 of which was spent working as a project developer and 3 as a Technical Reviewer and Lead Assessor for ERM CVS. Miguel has 9 years direct experience in the Cement industry, which included cement operations and mineral extraction/mining related activities. Miguel also has 5 years experience as a consultant for GHG emission reduction projects in the sectoral scopes of manufacturing, mining, and metal production, including WHR, Biofuels, Biomass Production and Hydro Power CDM projects. Miguel has completed the ERM CVS CDM training and Gold Standard training. Miguel holds a BSc and MSc in Civil Engineering.

3 Validation Approach

In carrying out its validation work, ERM CVS has:

- (a) Determined whether the proposed PoA complies with the requirements of paragraph 37 of the CDM Modalities and Procedures (M&Ps), the applicability conditions of the selected methodology and guidance issued by the Board;
- (b) Assessed the claims and assumptions made in the PoA design document (PoA-DD). The evidence used in this assessment has not been limited to that provided by the project participants.

The validation was carried out in accordance with the most recent version of the VVS. The validation process employed standard auditing techniques and undertook necessary cross-checks and follow-up actions to ascertain the correctness of the information. The validation team included staff with experience in the relevant technical areas within the sectoral scope, and financial expertise where relevant. The validation report and associated documents have undergone a thorough technical review by ERM CVS before being submitted to the CDM Executive Board for registration. The validation consisted of the following key stages:

- Upload of the PoA-DD and 1st real case CPA-DD for Global Stakeholder Consultation (GSC), receipt of any comments from stakeholders
- Review of documentation including PoA-DD, first real case CPA-DD, methodology and key supporting documents and references
- A visit to the site of the 1st real case CPA proposed to be included in the PoA, interviews with the CME and personnel responsible for developing the PoA
- Development of a draft validation report, identifying non-compliances including Corrective Action Requests (CARs) and Clarification Requests (CLs), taking into account findings of the GSC, desk review and site visit / interviews
- Resolution of outstanding issues (CARs and CLs) and development of a final validation report and validation opinion
- Independent technical review and report approval

3.1 Document Review

A detailed document review of the PoA-DD, methodology and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the site visit. The document review includes:

- A review of data and information to verify the correctness, credibility and interpretation of presented information;
- Cross checks between information provided in the PoA-DD and information from other sources, not limited to those provided by the PPs, applying ERM CVS's sectoral or local expertise and, if necessary, with independent background investigations
- Reference to available information relating to PoAs, projects or technologies similar to the proposed PoA
- Review, based on the approved methodology being applied, of the appropriateness of formulae and accuracy of calculations

Where the review of the PoA-DD at the document review stage raised issues, these were further reviewed and validated through supporting documentation and cross-checking from other sources and interviewing the CME and relevant personnel involved in the PoA during the site visit. During the document review the project team also compared the proposed PoA with available information relating to PoAs, projects or technologies similar to the proposed CDM PoA under validation. Where appropriate, the validation team assessed the appropriateness of formulae and the correctness of calculations presented by the PPs. A list of all documents reviewed or referred to in the course of this validation is included in Appendix A.

3.2 Site visit and Interviews

The site visit included a visit to Rwanda and Ethiopia, the host countries for the first two CPAs to be included in the PoA, as well as discussions with the CME and other implementing partners, and review of documentation.

Site visits and interviews provide additional background to the PoA as well as cross checks with PoA documentation. Interviews were undertaken with relevant stakeholders in the host country, as well as personnel with knowledge of the PoA design and implementation. A list of interviewees, and the main topics discussed with each person can be found in appendix A.

The site visit was designed to enable the validation team to

- undertake a detailed review of additional PoA documentation and verify the supporting documentation;
- inspect the site of the proposed first two real case CPAs and confirm the validity of the PoA description in the PoA-DD;
- assess the validity of the PoA boundary;
- cross-check the validity of the PoA information with other sources of information, including cross checks between information provided by interviewed personnel (i.e. by checking sources or other interviews) to ensure that no relevant information has been omitted; and
- interview relevant stakeholders in the host country, and personnel with knowledge of the PoA design and implementation.

3.3 Preparation of Draft Validation Report

Based on the findings of the desk review and site visit, ERM CVS prepared a draft validation report including a list of CARs and CLs, and provided this to the PPs. Where issues are identified that need to be further elaborated, researched or added to in order to confirm that the PoA meets the CDM requirements and can achieve credible emission reductions, ERM CVS identified these issues in the DVR so that they could be discussed with the PPs and concluded upon in the final validation report (FVR).

Remediation requests

Where issues were identified, ERM CVS raised one of the following remediation requests:

Clarification Request (CL): where information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Corrective Action Request (CAR): where:

- Mistakes have been made that will influence the ability of the PoA to achieve real, measurable additional emission reductions;
- The CDM requirements have not been met; or
- There is a risk that emission reductions cannot be monitored or calculated.

Forward Action Requests (FAR): where it was necessary to highlight issues related to project implementation that require review during the first verification of the PoA. FARs shall not relate to the CDM requirements for registration.

CARs and CLs must be 'closed out' before the validation can be concluded. Close out is only possible where the PPs modify the PoA design, rectify the PoA-DD or provide adequate additional explanation or evidence that satisfies ERM CVS's concerns. The validation process may be halted until the CARs and CLs are addressed to the validation team's satisfaction.

3.4 Final Validation Report and Validation Opinion

The final validation report (FVR) is completed when the CARs and CLs have been closed out to the satisfaction of ERM CVS. The FVR includes the validation opinion that sets out the validation conclusion regarding the compliance of the PoA with CDM requirements.

3.5 Internal Quality Control

The process of validation and decision of the validation team has been subject to an independent Technical Review. The scope of the Technical Review process is to independently assess that all procedures have been followed, necessary requirements have been met, and all conclusions are justified. The final validation decision is based on the findings and conclusions of the validation team, assessing the compliance of the PoA with the CDM requirements, and the technical evaluation of the independent technical reviewer. The final report is then reviewed and approved by the qualified signatory / final decision maker within ERM CVS.

4 Validation findings – Approval & Participation, Authorisation, Contribution to Sustainable Development, and Modalities of Communication

4.1 Approval & Participation

As per VVS section 7.6, ERM CVS assessed whether the DNA of each Party indicated as being involved in the PoA has provided an appropriate letter of approval (LoA).

	ERM CVS has confirmed that the LoA has been issued and provides confirmation of:			
Party	Ratified Kyoto Protocol?	Voluntary Participation	Contribution to Sustainable Development	Exact PoA title
Rwanda (Host Party)	Yes	Yes	Yes	Yes
Ethiopia (Host Party)	Yes	Yes	Yes	Yes

ERM CVS received the LoAs from the PP. The authenticity is not doubted.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/CL	Final OK/ NOT OK
4.1.1	Are LoAs in place for every PP that confirm <ul style="list-style-type: none"> Ratification of the Kyoto Protocol Voluntary Participation Reference to the precise project title in the PoA-DD Contribution to sustainable development (host party only) 	<p>The host party LoA for Rwanda was reviewed and confirms that Rwanda ratified the Kyoto protocol on 22 July 2004, confirms voluntary participation in the proposed PoA, references the precise PoA title as written in the POA-DD, and confirms the contribution of the project to the sustainable development of the host party.</p> <p>The host party LoA for Ethiopia was reviewed and confirms that Ethiopia ratified the Kyoto protocol on February 2005, confirms voluntary participation in the proposed PoA, references the precise PoA title as written in the POA-DD, and confirms the contribution of the project to the sustainable development of the host party.</p>	OK	OK
4.1.2	Is the information in the LoAs consistent with the other PoA documentation, including PP names, etc	<p>Both LoAs authorise 'The Paradigm Project' as the PP and CME. This is slightly different to the name of the CME/PP stated in the PoA-DDs and CPA-DDs ('The Paradigm Project L3C'). Please refer to CAR 01.</p> <p>The documents have been updated to read "The Paradigm Project" rather than "The Paradigm Project L3C". All mention of company name is now consistent throughout the documentation and government approval letters. CAR 01 was closed.</p>	CAR 01	OK

ERM CVS also reviewed whether the LoAs contain any additional specifications:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/CL	Final OK/ NOT OK
4.1.3	Does any LoA contain additional specification or conditions of the PoA? If so,	ERM CVS can confirm that the LOAs do not contain any additional specification	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
	are these conditions fully complied with?	or conditions relevant to the validation requirements,		
4.1.4	<p>If the LoA references a specific version of the Validation Report and this version cannot be submitted, then has either of the following been submitted?</p> <ul style="list-style-type: none"> a statement indicating final LoA has not been received or an updated Validation Report 	The LOAs do not reference a specific version of the validation report.	OK	OK

Conclusion

ERM CVS confirmed that LoAs have been received from all parties involved in the PoA.

ERM CVS's validation of the approval status of the PoA confirmed that:

- Each Party is a Party to the Kyoto Protocol
- Participation is voluntary
- In the case of the Host Party, the PoA contributes to the sustainable development of the country
- The title of the PoA is identical in the LoAs and the POA-DD.

ERM CVS therefore confirms that the LoAs are in accordance with paragraphs 38-44 of the VVS.

4.2 Authorisation

As per VVS section 7.7, ERM CVS evaluated whether all PPs are listed in a consistent manner in sections A.3 and A.4 of the POA-DD and have been appropriately authorised by a Party to the Kyoto Protocol. ERM CVS also checked the consistency of information between the POA-DD, Letters of Approval (LoAs) and the Modalities of Communication (MoC).

PPs (list all)	Is the CME or PP listed in Section A.4 of POA-DD?	Are contact details given in Appendix 1 of POA-DD?	Does the LoA name the authorised PP and the CME?	Is information in the MoC consistent with POA-DD and LoA?
The Paradigm Project	Yes	Yes	<p>Please see CAR 01</p> <p>The documents were updated. CAR 01 was closed. Please refer to appendix B for details.</p>	<p>The MoC also refers to "The Paradigm Project L3C". Please refer to CAR 01.</p> <p>The documents were updated. CAR 01 was closed.</p>

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
4.2.1	Is the correct information provided on PPs, and consistently applied in A.3, A.4 and Appendix 1 of the POA-DD and other PoA documentation (Letters of Approval and Modalities of Communication)?	The PoA only has one PP, which is also the CME. However, the name of the CME is inconsistent throughout the PoA-DD, with the acronym "L3C" being inconsistently applied. Please see CAR 01 The documents were updated. CAR 01 was closed. Please refer to appendix B for details.	CAR 01	OK
	Can it be confirmed that there are no entities other than those approved as PPs or CME included in sections A.3, A.4 or Appendix 1 of the POA-DD.	Yes	OK	OK
	Does the host party wish to be considered a Project Participant? If so, is this correctly presented in the POA-DD?	No. Neither Party (Rwanda or Ethiopia) wish to be considered as project participants.	N/a	N/a

Conclusion

All PPs to the PoA have been authorised by a party to the Kyoto Protocol and the CME has been authorised by the Host Party, and ERM CVS has reviewed the letters of approval to confirm this. The PPs and CME are listed in a consistent manner in the POA-DD and all related PoA documentation, including the LoAs and Modalities of Communication. No entities other than the CME and those approved as PPs are included in sections A.3, A.4 or Appendix 1 of the POA-DD.

4.3 Contribution to Sustainable Development

As per VVS section 7.8, ERM CVS evaluated whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM PoA to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
4.3.1	Does the LoA from the Host Party confirm that the PoA contributes to the sustainable development of that country?	The LOAs by the DNAs of both the host Parties confirm the contribution of the proposed CDM PoA to the sustainable development of the host Parties.	OK	OK

4.4 Modalities of Communication

As per VVS section 7.9, ERM CVS validated that the MoC statement has been correctly completed and duly authorised. ERM CVS also, validated the corporate identity of all project participants 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.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
4.4.1	Are all corporate and personal details in the MoC, including	In accordance with the VVS, corporate and personal details in the MoC have	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
	specimen signatures, correct?	<p>been confirmed through:</p> <p>(a) Directly checking evidence for corporate, personal identity and other relevant documentation: ERM CVS reviewed the articles of organisation which officially established 'The Paradigm Project' as an organisation, where Mr Neil Bellefeuille is named as the manager of the company, and is also the official registered agent of the company and is the official signatory of the articles of organisation /04/. ERM CVS checked the signature in the MoC against the signature in the articles of organisation and confirmed it to be the same. ERM CVS also reviewed a letter from Mr Neil Bellefeuille confirming the status of the alternate authorised signatory, Ms Johanna Matocha /05/. ERM CVS also interviewed Ms Johanna Matocha during the site visit and was able to confirm that her signature matches that contained in the MoC form.</p>		
	<p>Has the MoC statement been correctly completed, including:</p> <ul style="list-style-type: none"> Using the latest form? All information, including Appendix 1, has been correctly provided? Listing all PPs? 	<p>The MoC has not been correctly completed. Section 3 has been signed twice by the same PP. Please see CAR 02</p> <p>The MOC has been updated to remove the second signature from Section 3. All signature dates have been updated to reflect most recent signing. CAR 02 was closed.</p>	CAR 02	OK
	<p>Has the MoC been signed by the authorised signatories of the PP?</p> <p>Are the signatories consistent with the names given in Appendix 1 of the MoC?</p>	<p>Yes, the MoC has been signed by the authorised signatories of the PP, and the signatories are consistent with the names given in Appendix 1 of the MoC.</p>	OK	OK

Conclusion

ERM CVS has performed due diligence on the MoC statement in accordance with the requirements established in the VVS. ERM CVS can confirm that the MoC statement complies with all relevant forms and requirements.

5 Validation findings – GSC, POA-DD and PoA Description

5.1 Main changes between the POA-DD version published for GSC and the final version submitted for registration:

- Changes related to the CARs and CLs, as identified in Appendix B of this report

5.2 Global Stakeholder Consultation

At the start of the validation, in accordance with the latest version of the Project Cycle Procedure, the unvalidated POA-DD and first two real case CPA-DDs of CPAs to be included in the PoA, supplied by the client was uploaded on the UNFCCC website for global stakeholder review for a period of 30 days. The global stakeholder consultation (GSC) period was from 30 October 2012 - 28 November 2012 .

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/XKDQLUWSV7TUTU0ZGXBVQPWBK6807A/view.html>

No comments were received.

5.3 Project Design Document (POA-DD)

As per VVS section 7.10, ERM CVS reviewed the POA-DD to determine whether it has been prepared in accordance with the latest POA-DD form (template) and guidance from the CDM Executive Board available on the UNFCCC website.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.3.1	Is the POA-DD prepared in accordance with the latest forms and guidance required by the CDM EB?	ERM CVS can Confirm that the POA-DD has been checked against the latest "Guidelines for completing the programme design document form for small-scale CDM programmes of activities" (Ver02.1, EB67 Annex30), and the latest template for the simplified PoA Design Document (version 02.0) available on the CDM website. The final POA-DD is in compliance with the template and guidelines.	OK	OK

Conclusion

ERM CVS has confirmed that the POA-DD has been prepared in accordance with the latest relevant forms and guidance.

5.4 PoA Description

As per VVS sections 7.11, 8.4.3 and 8.4.5, ERM CVS reviewed the description of the PoA in the PoA-DD in order to confirm the framework developed for the implementation of the PoA, and for defining a CPA under the PoA, and to evaluate whether it provides a clear and accurate description of the proposed CDM PoA and generic CPA. Validation of the PoA description was based on review of documentation, a physical inspection of the site of the first real case CPA, and interviews.

Description of the PoA

Policy/measure or stated goal of the PoA:

The proposed PoA will disseminate improved cooking stoves to reduce the use of non-renewable biomass, and hence reduce greenhouse gas emissions.

Description of the PoA:

The proposed PoA aims to abate GHG emissions by reducing domestic non-renewable biomass consumption used for thermal energy needs by introducing improved, higher efficiency cook stoves to replace traditional low efficiency cook stoves. The PoA covers two countries, Rwanda and Ethiopia. CPAs will be categorised by the make and model of the improved cook stoves

along with the number distributed as defined by the thermal energy savings limit for type II project activities rather than a geographical boundary defined by administrative boundaries.

The findings of our validation of the project description in the PoA-DD are set out below.

PoA Boundary, Location and Status

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
5.4.1	Boundary: Is the definition of the boundary for the PoA correctly stated in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented, taking into consideration all applicable national and/or sectoral policies and regulations? How was this validated?	The boundary of the PoA is the two host countries of Rwanda and Ethiopia. This is correctly stated in the PoA-DD.	OK	OK
5.4.2	Policy/measure or stated goal of the PoA: Does the PoA-DD describe the policy/measure or stated goal that the PoA seeks to promote? How was this validated?	The PoA-DD states the policy/measure or stated goal to be the reduction of GHG emissions, reduction in non-renewable biomass consumption and reduction in indoor air pollution. However the statement included in the PoA-DD does not mention the measures that will be taken to achieve this. Please refer to CL 01. The policy/measure or stated goal of the PoA has been stated more clearly in the PoA-DD: "Improved cook stoves will be distributed under this PoA with the primary objective of abating GHG emissions and reducing consumption of non-renewable woody biomass and reducing indoor air pollution". CL 01 was closed.	CL 01	OK
5.4.3	Confirmation of voluntary action: Does the POA-DD provide confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity? How was this validated?	The PoA-DD affirms that the proposed PoA is a voluntary action. ERM CVS has confirmed, by means of the site visits to Rwanda and Ethiopia and review of relevant national policies /06-10/ that there are no laws or policies making improved stoves mandatory or any government initiatives requiring the proposed programme to take place.	OK	OK

Conclusion

The process undertaken to validate the accuracy and completeness of the PoA description is set out in detail above. ERM CVS has confirmed that the description in the PoA-DD provides a clear, accurate and complete understanding of the nature of the proposed CDM PoA.

Description of a generic CPA

A generic CPA will distribute improved cook stoves (ICS) to households within the defined project boundary for the purpose of abating GHG emissions and reducing wood fuel consumption. CPAs implemented under this PoA shall displace the use of low efficiency cook stoves. Each SSC CPA will distribute a number of ICSs which is within the limit of 180 GWh thermal of energy savings per year in fuel input. The description of a generic CPA in the PoA-DD has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
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	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
5.4.4	<p>(i) Description: Generic CPA design</p> <p>Does the description of the generic CPA in the PoA-DD section A.1 of part II provide a clear, accurate and sufficiently detailed description of all relevant elements of a generic CPA? Specifically, does the CPA description provide clear indication of:</p> <ul style="list-style-type: none"> a) List of main technologies involved b) List of main equipment and installations c) The lifetime of the project equipment d) Monitoring equipment and its location e) Capacities and efficiencies f) Emissions sources and GHGs involved in the PoA g) Existing and forecast energy and mass flows and balances h) Interaction with processes/equipment outside the project boundary, if any, is stated. i) Description of technology transfer from Annex I countries (if applicable) 	<p>(a) to (c) and (e) to (g) The generic CPA description (Section A.1 of the generic CPA-DD) does not specifically address the main technologies and equipment to be involved, lifetime, capacities and efficiencies, emissions sources, and energy flows and balances. Please see CL 02.</p> <p>The generic CPA description has been updated to include:</p> <ul style="list-style-type: none"> • Description of the main technologies and equipment involved • The lifetime of different stove types • Capacities and efficiencies • Emissions sources • Energy flows and balances <p>CL 02 was closed. Please see appendix B for details.</p> <p>(d) Not applicable, since no monitoring meters will be used.</p> <p>(h) Not applicable.</p> <p>(i) The generic CPA description (Section A.1 of the generic CPA-DD) does not address technology transfer. Please see CL 02.</p> <p>The generic CPA description has been updated to include technology transfer. CL 02 was closed. Please see Appendix B for details.</p>	CL 02	OK
5.4.5	Is the description in the generic CPA-DD consistent with the validated description in the PoA DD as discussed above?	Yes, the description is consistent.	OK	OK

Conclusion

ERM CVS has confirmed that the description in the PoA-DD and generic CPA-DD provides a clear, accurate and complete understanding of the precise nature of the PoA and the technical aspects of its implementation. The description sufficiently covers all relevant elements, is accurate, and clearly states the differences resulting from the PoA compared to the pre-project situation.

Description of baseline scenario in generic CPA-DD

The generic CPA-DD description was evaluated to confirm whether or not it provides a clear and accurate summary of the baseline scenario for a generic CPA.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
5.4.6	Is there a clear description of the baseline scenario for a generic CPA?	<p>Section B.4 of the generic CPA-DD contains a description of the baseline scenario. The DD contains a general description of the types of cooking stoves and fuels used by low income households in the countries included in the PoA. ERM CVS has validated this description against third party reports /11/. In the baseline, most households use traditional three stone fires, or other unimproved stove designs. The methodology assumes that the emissions baseline is that the mix of present and future fuels used would consist of a solid fossil fuel (lowest in the ladder of fuel choices), a liquid fossil fuel (represents a progression over solid fuel in the ladder of fuel use choices) and a gaseous fuel (represents a progression over liquid fuel in the ladder of fuel use choices). Thus in the methodology a 50% weight is assigned to coal as the alternative solid fossil fuel (96 tCO₂/TJ) and a 25% weight is assigned to both liquid and gaseous fuels (71.5 tCO₂/TJ for kerosene and 63.0 tCO₂/TJ for liquefied petroleum gas (LPG). This has been applied in the PoA.</p> <p>More specific data on the baseline situation, including data on the types of stoves and fuels used in Rwanda and Ethiopia, will be provided at the level of the specific CPA.</p>	OK	OK

Conclusion

The description of a generic CPA provides the reader with a clear understanding of the nature of a generic CPA and its baseline.

6 Validation Findings - Eligibility Criteria for Inclusion of a CPA in a PoA

6.1 Description of Eligibility Criteria

As per VVS section 8.4.9 and following guidance from the Standard on Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), ERM CVS evaluated the eligibility criteria contained in section B.2 of the PoA-DD to evaluate whether they are verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.1.1	Do the eligibility criteria include the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA (for example, an emission factor for electricity generation is dependent on the boundaries of regional or state or sub-regional grids)? Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criterion in the GSP-PoA-DD does not clearly prescribe the conditions related to the geographical boundary. Please see CL 03.</p> <p>The eligibility criteria now clearly state that any CPA must be confined to the national boundaries of one of the host countries included in the PoA. Records of the location of the business and partnership agreements can be checked to verify this. CL 03 was closed.</p>	CL 03	OK
6.1.2	Do the criteria include conditions that avoid double counting of emission reductions, like unique identifications of product and end-user locations (e.g. programme logo)? Are the relevant criteria verifiable and sufficiently objective?	<p>The criterion states that 'To prevent double counting of ICSs distributed under the PoA, CPA operators shall ensure that ICS are uniquely marked...'. The GSP-PoA-DD states that the unique marking on each ICS will be checked against the Total Sales Record of the CPA which lists all the ICSs and unique identifications assigned to each under the CPA. However during the site visit it was observed that for the EzyStove model to be disseminated in the first two CPAs, the serial number will be marked only on the combustion chamber part of the stove, which is replaceable, and it may not be possible to add a serial number to the stove frame. The serial number will be on the underside of the combustion chamber, hence it may not be accessible if the stove is in use during a household survey visit, and furthermore the serial number could become obscured through use of the stove over time. Therefore the criterion related to double counting should be clarified. Please see CL 03.</p> <p>The eligibility criterion now states that CPA operators shall ensure that ICSs are uniquely marked (<i>such as</i> a serial number, batch number, or branding on the ICS which identifies it as part of the CPA) and shall provide written attestation that they are not included in any other CDM or Voluntary GHG offset schemes outside of this PoA. The criterion is sufficiently broad to include the EzyStove, but also sufficiently objective and verifiable. The CME assured that the design of stoves will ensure that all stoves will be able to be uniquely identified. The serial numbers, batch numbers, or branding will be checked by the verifying DOE. CL 03 was closed.</p>	CL 03	OK
6.1.3	Do the criteria include the specifications of technology/measure including the level and type of service, and performance specifications, including compliance with testing/certifications? Are the relevant criteria verifiable and sufficiently objective?	<p>The criterion in the GSP-PoA-DD does not clearly state the required technical specifications for stoves to be suitable for the PoA. It also does not stipulate that the CPA should demonstrate that each unit is less than 5% of the small scale CDM thresholds. Please see CL 03</p> <p>The eligibility criteria related to technical specifications have been revised. All technologies must be improved cookstoves, use wood as fuel, and have a thermal efficiency greater than 20%, which is in line with the methodology definition of improved cook stoves. This can be checked using independent third party lab testing certificates (using testing protocol WBT4.2.1 or a more recent protocol where available) and documents showing the product description and specifications. This is considered sufficiently verifiable and objective. The requirement that each unit is less than 5% of the small scale CDM thresholds is</p>	CL 03	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		included in the eligibility criterion related to additionality. CL 03 was closed.		
6.1.4	Do the criteria include conditions to check the start date of the CPA through documentary evidence? Are the relevant criteria verifiable and sufficiently objective?	<p>The criterion in the GSP-PoA-DD does not address the CDM requirement that the start date of the CPA shall not be before the starting date of the PoA. Please see CL 03</p> <p>The revised criterion states that the start date for each CPA is defined as the earliest date at which either the implementation or construction or real action of a programme activity begins, which is in line with the CDM glossary of terms. The criteria requires that the CPA start date cannot be prior to the 30th of October 2012, which is the date when the PoA DD was first published for Global Stakeholder Consultation – which is the correctly defined start date of the PoA in accordance with the CDM glossary of terms. The criterion is sufficiently objective and verifiable. CL 03 was closed.</p>	CL 03	OK
6.1.5	Do the eligibility criteria include conditions that ensure compliance with applicability and other requirements of single or multiple methodology/ies applied by CPAs? Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria address the methodology applicability conditions as follows:</p> <ul style="list-style-type: none"> The aggregate energy savings of a single project activity shall not exceed 180 GWh thermal per year in fuel input. The eligibility criteria state that 'Section D.2 of the CPA DD shall demonstrate that the total thermal energy savings are less than 180 GWh for the total number of ICSs projected to be distributed in the CPA DD'. The CME has adopted an approach whereby the maximum number of improved stoves that may be distributed is capped so as not to exceed the 180GWh energy saving threshold. AMS-II.G paragraph 2: 'This category comprises appliances involving the efficiency improvements in the thermal applications of non-renewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired cook stoves or ovens or dryers and/or energy efficiency improvements in existing biomass fired cook stoves or ovens or dryers': although the technology description in the generic CPA-DD makes it clear that CPAs would fulfil this requirement, it is not specifically addressed in the eligibility criteria. Please see CL 03. CL 03 was closed. The eligibility criteria require that the CPA operator (in this PoA) distributes improved cook stoves to reduce non-renewable biomass consumption. Criterion (c) (specifications of technology/measure) also requires that all technologies implemented in the PoA must demonstrate a minimum thermal efficiency of 20% and use wood-burning improved cookstoves. The criteria sufficiently address the requirements of the methodology (paragraphs 2, 3 and 4), and also the PoA specific requirements of the methodology (paragraphs 29-31), and are sufficiently objective and verifiable – please see appendix B for details. AMS-II.G paragraph 3: 'Project participants shall be able to show that 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 eligibility criteria include this condition, and the requirement that it be supported by a literature review. However the wording is not clear whether published literature is the only source that could be used, or whether survey methods, official reports or statistics could also be used. Please see CL 03. CL 03 was closed. The eligibility criterion now states that 'Section D.4 of the CPA DD shall demonstrate that the CPA will be implemented in a host party in which non-renewable biomass has been consumed since December 1989. This is determined at the PoA level and CPA shall demonstrate consistency with PoA parameters'. The criterion sufficiently addresses the requirements of the methodology, and is sufficiently objective and verifiable – please see appendix B for details. ERM CVS has validated that non-renewable biomass has been 	CL 03	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>consumed since 1989 in both of the host Parties included in the PoA. This has been validated at the PoA level. Please see section 7 below for further details.</p> <ul style="list-style-type: none"> AMS-II.G footnotes 1 and 2: The methodology defines high efficiency biomass fired cook stoves as single pot or multi pot portable or in-situ cook stoves with specified efficiency of at least 20%. The methodology states that the efficiency of the project systems should be as certified by a national standards body or an appropriate certifying agent recognized by it, or alternatively manufacturers' specifications may be used. The eligibility criterion (c) in the PoA-DD require that testing is carried out to determine the thermal efficiency of the improved cook stove, and that kitchen test reports will be provided as evidence. Independent Third Party lab testing certificates will be required demonstrating thermal efficiency greater than 20% using testing protocol WBT4.2.1 or a more recent protocol where available. <p>The criteria are sufficient to address the methodology requirements, and are sufficiently objective and verifiable.</p>		
6.1.6	Do the eligibility criteria include conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality (please refer to the latest approved version of the <i>Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of Activities</i>); Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria do not state what the additionality requirements are for this PoA. Please see CL 03</p> <p>Eligibility criterion (f) now states that All CPAs within the PoA are exempt from additionality provided that they meet the following criteria:</p> <ul style="list-style-type: none"> Each ICS is an isolated unit End users of the ICSs are households The size of each ICS (in thermal energy savings) is no greater than 5% of the 180 GWh small scale limit specified for this type II project activity under the small scale baseline and monitoring methodology AMS-II.G. <p>The criterion therefore clearly states the additionality requirements, and is in line with the "Guidelines on the demonstration of additionality of small-scale project activities". The criterion is sufficiently objective and verifiable. CL 03 was closed.</p>	CL 03	OK
6.1.7	Do the eligibility criteria include, if applicable, any PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis (See also paragraph 6 (m) of Procedures for registration of a programme of activities as a single CDM project activity and issuance of CERs for a PoA). Are the relevant criteria verifiable and sufficiently objective?	<p><u>Local stakeholder consultation</u>: this will be conducted at PoA level, with one consultation in each country.</p> <p><u>Environmental impact analysis</u>: the eligibility criteria state that Environmental analysis shall be conducted at the PoA level with each CPA having to comply specifically with the EIA certificate or EIA exemption certificate issued in that country. CPAs must demonstrate compliance with EIA exemption criteria per technology type. WBT certificates including product specifications will be used to validation eligibility criteria with EIA exemptions.</p> <p>The criteria are sufficiently objective and verifiable.</p>	OK	OK
6.1.8	Do the criteria include, where applicable, the target group (e.g. domestic/ commercial/ industrial, rural/ urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)? Are the relevant criteria verifiable and	<p>The eligibility criteria do not address the target group and distribution mechanisms. Please see CL 03</p> <p>Eligibility criterion (h) now requires that the intended target groups of the improved cook stoves distributed under this PoA are households which use non-renewable biomass in the form of wood for thermal energy required to cook meals. This can be checked against the proposed distribution methods for each CPA to ensure that the target group is the same. The criterion is sufficiently</p>	CL 03	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	sufficiently objective?	objective and verifiable. CL 03 was closed.		
6.1.9	Do the criteria include, where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/ standard from the Board pertaining to sampling and surveys? Are the relevant criteria verifiable and sufficiently objective?	<p>Eligibility criterion 9 in the GSP PoA-DD (now renumbered to criterion (i) in the revised PoA-DD) refers to sampling undertaken at CPA level but sections B.3 of part I and B.7.2 of part II of the PoA-DD refer to common sampling plan or sampling across CPAs in one country. Parameters to be determined by means of sampling are also not clear and not consistent – please refer to section 9.2 of the report and CAR 3.</p> <p>Sampling will be conducted using a stratified common sampling plan at the PoA level and managed directly by the CME. Therefore further criteria related to sampling are not applicable to CPAs in this PoA. CAR 03 was closed. Please refer to appendix B for details.</p>	CAR 3	OK
6.1.10	Do the criteria include, where applicable, conditions that ensure that the CPA in aggregate meets the small-scale or micro-scale threshold criteria (please refer to the latest approved version of the Guidelines for demonstrating additionality of microscale project activities and the latest approved version of the General Guidelines to SSC CDM methodologies) and remain within those thresholds throughout the crediting period of the CPA? Are the relevant criteria verifiable and sufficiently objective?	Yes, the criteria require that the CPA-DD demonstrates that the CPA doesn't exceed the 180 GWh threshold for small scale type II project activities. The PoA-DD states that 'the cumulative thermal energy savings of all ICSs projected to be distributed in the CPA shall not exceed 180 GWh. Compliance with this cap shall be expressed as a maximum number of units within the CPA. The CME will directly monitor compliance with this criterion'. The thermal energy savings can be accurately determined for each CPA based on $B_{y,savings}$ and $NCV_{biomass}$. Each CPA will distribute a limited number of units, such that the aggregate energy savings from the units distributed by the CPA do not exceed 180GWh. This approach is considered to be reasonable, given that the energy savings per unit is subject to monitoring during the crediting period, and the exact number of units sold or distributed under each CPA cannot be accurately known in advance – hence adopting a cap approach is justified.	OK	OK
6.1.11	Do the criteria include, where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories (please refer to the latest approved version of the Guidelines on assessment of debundling for SSC project activities)? Are the relevant criteria verifiable and sufficiently objective?	All CPAs included in this PoA will be exempt from the debundling test where they can successfully demonstrate that each ICS distributed in the CPA generates thermal energy savings not greater than 1% of 180 GWh or 1.8 GWh. The eligibility criteria include the requirement that the CPA DD demonstrates that each ICS doesn't exceed the 1% of 180 GWh threshold for small scale type II project activities – the criterion states that 'Section A.12 of the CPA-DD shall state the thermal energy savings per ICS to prove that the same is less than or equal to 1.8 GWh. The same shall be evidenced within the emissions calculations spread sheets' - and therefore each CPA will be able to demonstrate its exemption from the debundling test, as per the Guidelines on assessment of debundling for SSC project activities. The criterion is sufficiently objective and verifiable.	OK	OK
6.1.12	Do the criteria include conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance? Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria require an ODA declaration signed by all CPA operators. However the criteria does not include the requirement that a signed declaration be provided from annex 1 Parties, if any public funding from an annex 1 Party is used for a CPA. Please see CL 03.</p> <p>The revised eligibility criterion (I) states that CPA operators shall be required to provide an affirmation on whether any Annex 1 funding is used, and that funding from Annex I parties, if any, does not result in a diversion of official development assistance, and that this shall be demonstrated as follows: Individual CPA operators shall sign ODA declarations for CPAs implemented by them to attest that no funding from Annex 1 parties that leads to diversion of ODA has been used in the project, and the statement shall specify whether or not Annex 1 funding is used within the project; and where funding is sought from Annex 1 parties the ODA declaration shall be supported by details regarding Annex 1 funding that affirms that the funding doesn't divert ODA. The criterion is sufficiently objective and verifiable. CL 03 was closed.</p>	CL 03	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.1.13	Does the CME have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA?	ERM CVS conducted interviews with the CME during the site visit, and also reviewed the operation and management plan of the CME, which includes procedures for technical review of inclusion of CPAs. The CME has implemented other cooking stove projects in the past, including projects generating GHG emission reductions, and therefore ERM CVS considers that the CME has the competencies to ensure each CPA meets the eligibility criteria.	OK	OK
6.1.14	Is the set of eligibility criteria sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	Upon resolution of the CARs and CLs, ERM CVS confirmed that the eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.	OK	OK

Conclusion

ERM CVS can confirm that the CME has developed eligibility criteria for inclusion of a CPA under the PoA and has included these criteria in the PoA design document and demonstrated their usability to assess the inclusion of CPAs. The POA-DD provides a detailed description of the eligibility criteria for inclusion of a project activity as a CPA under the PoA, which includes criteria for demonstration of additionality of the CPA, and the type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility. The eligibility criteria are verifiable, and are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA. ERM CVS has assessed the specified eligibility criteria and can conclude that the criteria are sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA.

7 Validation findings – Baseline and Monitoring Methodology

ERM CVS has evaluated the baseline and monitoring methodology selected by the PPs to confirm its applicability and whether or not it has been appropriately applied in the PoA-DD.

7.1 Validity of selected methodology and methodological tools

As per VVS section 7.12, ERM CVS validated that an approved and currently valid baseline and monitoring methodology (and associated methodological tools) have been applied for this proposed CDM PoA.

Baseline methodology applied	AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass - Version 5.0
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	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.1.1	Is the number, title and version of the approved methodology clearly and correctly stated in the PoA-DD? Is the methodology within their period of validity?	ERM CVS has determined that the methodology is correctly quoted and applied by comparing with the actual text of the applicable version of the methodology available on the UNFCCC CDM website. The methodology is within its period of validity.	OK	OK
	Are all the required tools applied and fully referenced in the PoA-DD and generic CPA-DD? Are the version numbers applicable at the time of validation?	Not applicable as this PoA applies a small scale methodology that does not apply any tools.	N/A	N/A
	If applicable, has any specific guidance provided by the CDM EB relating to the applied methodology been considered?	General guidelines for SSC CDM methodologies Version 19.0, EB69 Annex 27 Guidelines for sampling and surveys for CDM project activities and programme of activities Version 02.0, EB69 Annex05 Guidelines on assessment of de-bundling for SSC project activities Version 03.0, EB54 Annex 13 Guidelines on the demonstration of additionality of small-scale project activities Version 09.0, EB68 Annex27 (Standard for) Sampling and surveys for CDM project activities and programme of activities Version 03.0, EB69 Annex 4	OK	OK

Conclusion

The applied methodology has been correctly described and is approved by the CDM Executive Board. The version is currently valid.

7.2 Applicability of the selected methodology to the generic CPA

As per VVS section 7.12.2, ERM CVS evaluated whether the selected baseline and monitoring methodology applied in the proposed PoA is applicable to the generic CPA described in the PoA-DD. This is also one of the eligibility criteria for inclusion of new CPAs to the PoA. This evaluation was based on a review of the PoA-DD and associated documentation and a visit to the

first two real case CPAs proposed to be included in the PoA. ERM CVS has validated whether the applicability conditions of the methodology and relevant tools are met and whether the PoA is not expected to result in emissions other than those allowed by the methodology.

ERM CVS has assured the compliance of the generic CPA with each of the applicability conditions of the selected methodology and tools, set out in section E.2 of the PoA-DD (Applicability Criteria):

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
7.2.1	This category comprises efficiency improvements in thermal applications of non-renewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired cook stoves or ovens or dryers and/or energy efficiency improvements in existing biomass fired cook stoves or ovens or dryers.	No – please see CL 03	Yes	The technology description of a generic CPA makes it clear that CPAs would fulfil this condition. However these technology requirements were not specifically addressed in the eligibility criteria – please see 03 (e). The eligibility criteria were revised to include specifications of technology and measure. CL 03 was closed. Please see appendix B for details.	CL 03	OK
	Project participants are able to show that 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.	Yes	Yes	This condition is included as part of the eligibility criteria for inclusion of CPAs. In the updated PoA-DD, non-renewable biomass use since 1989 is demonstrated at the PoA level for the two countries included in the PoA boundary: Rwanda and Ethiopia. Please see below this table for a detailed validation of this.	OK	OK
	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.	Yes	Yes	The PoA-DD clearly states that CPAs must be below this threshold, and the eligibility criteria include the requirement that section D.2 of the CPA DD shall demonstrate that the total thermal energy savings are less than 180 GWh for the total number of ICSs projected to be distributed in the CPA DD. The CME has adopted an approach whereby the maximum number of improved stoves that may be distributed is capped so as not to exceed the 180GWh energy saving threshold.	OK	OK
	The use of this methodology in a project activity under a programme of activities is legitimate if the following leakages are estimated and accounted for, as required on a sample basis using a 90/30 precision for the selection of samples: a) Use of non-renewable woody biomass saved under the project activity to justify the baseline of other CDM project activities can also be a potential source of leakage. If this leakage assessment quantifies a	No	Yes	The PoA-DD and generic CPA-DD do not specifically address this condition. Please see CL 03 The PoA-DD has been revised to specifically address these requirements. Bold is multiplied by a net to gross adjustment factor of 0.95 to account for leakage. Please refer to CL 03 (e) in appendix B for details. CL 03 was closed.	CL 03	OK

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>portion of non-renewable woody biomass saved under the project activity that is then used as the baseline of other CDM project activities then B_{old} is adjusted to account for the quantified leakage;</p> <p>b) Increase in the use of non-renewable woody biomass outside the project boundary to create non-renewable woody biomass baselines can also be a potential source of leakage. If this leakage assessment quantifies an increase in the use of non-renewable woody biomass outside the project boundary then B_{old} is adjusted to account for the quantified leakage;</p> <p>c) As an alternative to subparagraphs (a) and (b), B_{old} can be multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.</p>					
	<p>The following further conditions apply for the value of fraction of non-renewable (fNRB) applied in a component project activity (CPA) of a POA. The choice between (a) conduct own studies to determine the local fNRB value and then apply those values in the CPAs; and (b) use default national values approved by the Board; shall be made ex ante. A switch from national value i.e. choice (b) to sub-national values i.e. choice (a) is permitted, under the condition that the selected approach is consistently applied to all CPAs.</p>	No	Yes	<p>The PoA-DD and generic CPA-DD do not specifically address this condition. Please see CL 03</p> <p>The PoA-DD has been revised to specifically address these requirements.</p> <p>The CME has chosen, ex-ante, to apply default national values approved by the board to determine fNRB.</p> <p>Please refer to CL 03 (e) in appendix B for details. CL 03 was closed.</p>	CL 03	OK

Non-renewable biomass use since 1989:

The applicability conditions of the methodology require the CME to demonstrate that non-renewable biomass has been used in the project region since 1989. This has been validated as follows:

The CME has chosen to demonstrate this requirement at the PoA level. ERM CVS has reviewed baseline reports prepared by the CME for each country and validated the requirement as follows:

In accordance with the methodology, non-renewable biomass is demonstrated when at least two of the following supporting indicators are shown to exist:

- (a) A trend showing an increase in time spent or distance travelled for gathering fuel wood, by users (or fuel-wood suppliers) or alternatively, a trend showing an increase in the distance the fuel-wood is transported to the project area;
- (b) Survey results, national or local statistics, studies, maps or other sources of information, such as remote-sensing data, that show that carbon stocks are depleting in the project area;
- (c) Increasing trends in fuel wood prices indicating a scarcity of fuel-wood;
- (d) Trends in the types of cooking fuel collected by users that indicate a scarcity of woody biomass.

Rwanda:

An official government report published in 2008 /21/ states that studies were done in 1981/1982, and again in 1989/1990 indicating a fuel wood deficit of approximately 3 million m³ in Rwanda. The same report also describes 'massive deforestation' in the country, indicating an on-going pattern of non-renewable wood resource exploitation. Furthermore a report by the Rwanda Ministry of Infrastructure in 2007 /22/ concluded the following: "Due to high demand for household fuel wood as a basic source of energy by 95% of the population - both rural habitants and low income earners in town, Rwanda lost 50.2% of its forest and woodland habitat between 1990 and 2005".

The CME has undertaken an analysis, in the baseline report reviewed by ERM CVS /32/, of the biomass consumption in the country against the criteria stated in the methodology to determine non-renewability of biomass (listed above). The study focuses on (b) Survey results, national or local statistics, studies, maps or other sources of information, such as remote-sensing data, that show that carbon stocks are depleting in the project area, and (c) Increasing trends in fuel wood prices indicating a scarcity of fuel-wood.

Depleting carbon stocks:

A report by the FAO (2009) /33/ indicates that excessive wood fuel consumption, combined with agricultural practices such as burning crop residues, is leading to a depletion in soil and above-ground carbon stocks: "large-scale and long-term practices are reducing carbon stocks in the soil and perennial vegetation, increase emissions of greenhouse gases in the atmosphere and a subsequent contribution to climate change. Loss of vegetation cover, biomass and soil organic matter (soil carbon) reduce the structural stability and infiltration capacity of the soil...".

Increasing trends in wood-fuel prices:

ERM CVS has reviewed a study carried out in the Southern Province of Rwanda by Mazimpaka (2009) /24/ which found that fuel prices were increasing by 15% per year on average between 2006 and 2009. The same study also found that a large proportion of the wood is harvested illegally from public forests and plantations, indicating that it is not likely to be harvested in a controlled and sustainable manner. Based on survey results, the report concluded that "Overexploitation and unsustainable post-harvest was felt by most of the interviewed people".

ERM CVS has reviewed a report from the European Union Energy Initiative (2009) /23/ indicating long term sustained increases in the price of fuel wood and charcoal: in 1995 prices of a bag of charcoal (35kg) and one steer (350kg) of firewood were 400 Rwandan Francs (Frw) and 700 Frw respectively, while in 2005 prices stood at 5000 Frw for one bag of charcoal and 4200 Frw for one steer of firewood. The percentage increase of the prices from 1995 to 2005 was 1250% for charcoal and 600% for firewood.

In conclusion, ERM CVS has confirmed that sufficient independent third party evidence has been provided to demonstrate depleting carbon stocks and increases fuel wood prices, and hence that the CME has shown that 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.

Ethiopia:

According to an online database of deforestation trends and statistics, between 1990 and 2010, Ethiopia lost 18.6% of its forest cover. This indicates a trend of unsustainable biomass exploitation. The CME has undertaken an analysis, in the baseline report reviewed by ERM CVS /34/, of the biomass consumption in the country against the criteria stated in the methodology to determine non-renewability of biomass (listed above). The study focuses on (b) Survey results, national or local statistics, studies, maps or other sources of information, such as remote-sensing data, that show that carbon stocks are depleting in the project area, and (c) Increasing trends in fuel wood prices indicating a scarcity of fuel-wood.

Depleting carbon stocks:

The FAO Global Forest Resources Assessment 2010: Country Report Ethiopia /27/ shows that carbon in above ground biomass, below ground biomass and litter have all decreased in forested areas in Ethiopia between 1990 and 2010. Carbon in above ground biomass decreased from an estimated 227 Mt in 1990 to 172 Mt in 2010, carbon in below-ground biomass reduced from 62 Mt to 47 Mt, and carbon stored in litter decreased from 32 Mt to 26 Mt in the same period.

Increasing trends in wood-fuel prices:

An article by Gamtessa (2000) /35/ showed that biomass consumption had been steadily increasing in the country for at least two decades at a rate of 2.5%; prices of wood fuel increased in the country with a specific example of Addis Ababa where prices increased from \$9 to \$90 per tonne between 1973 and 1983 (more recent data were not made available in this paper); and fuel scarcity contributed in part to a retrogressive shift from fuel wood to dung.

In conclusion, ERM CVS has confirmed that sufficient independent third party evidence has been provided to demonstrate depleting carbon stocks and increases fuel wood prices, and hence that the CME has shown that 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.

Conclusion

As validated in the table above and the further validation of non-renewable biomass use since 1989 provided, the applied methodology and associated tools are fully applicable to the generic CPA and is correctly applied in the PoA-DD. There no greenhouse gas emissions sources were identified within the proposed generic CPA boundary as a result of the implementation of the proposed CPA which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.

7.3 Generic CPA Boundary

As per VVS section 7.12.5, ERM CVS reviewed the description of the project boundary in the PoA-DD, including the sources and gases included in the boundary of the proposed generic CPA for the purpose of calculating project and baseline emissions for the generic CPA.

Emission sources

The emissions sources included in or excluded from the generic CPA boundary, as set out in the applied methodology are as follows:

	Source	Gas	Included in generic CPA-DD?	Is inclusion / exclusion justified in the CPA-DD?	How has this been validated?
Baseline emissions	Combustion of non-renewable biomass for thermal energy using baseline technologies	CO ₂	Yes	Yes	Emission reductions are calculated on the basis of fuel savings. This was validated by review of the PoA-DD and generic CPA-DD
		CH ₄	No	Yes	Excluded as per the methodology
		N ₂ O	No	Yes	Excluded as per the methodology

	Source	Gas	Included in generic CPA-DD?	Is inclusion / exclusion justified in the CPA-DD?	How has this been validated?
Project emissions	Combustion of non-renewable biomass for thermal energy using improved cook stoves	CO ₂	N/A	N/A	Project emissions are not applicable under the applied methodology
		CH ₄	N/A	N/A	Project emissions are not applicable under the applied methodology
		N ₂ O	N/A	N/A	Project emissions are not applicable under the applied methodology

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.3.1	Has the PoA-DD justified the inclusion/exclusion of all potential sources of GHG emissions as set out in the applied baseline methodology? Is this information also stated consistently in the generic CPA-DD?	ERM CVS evaluated whether the sources of GHG emission set out in the applied methodology were included in the CPA boundary and, where the methodology allows CME/CPA operator to choose whether a source or gas is to be included within the CPA boundary. This has been clearly justified in the CPA-DD. The validation was based on review of the PoA-DD and generic CPA-DD and comparison with the applied methodology. However the requirements of the methodology for assessing leakage for PoAs are not referred to in the PoA-DD or generic CPA-DD. Please see CL 03 The requirements of the methodology concerning leakage are appropriately discussed in the revised PoA-DD. CL 03 was closed. Please see appendix B for details.	CL 03	OK

Conclusion

The identified boundary and the selected sources and gases included in the final PoA-DD and generic CPA-DD are appropriately described and justified in accordance with the applied methodology. The information is correctly described in section E.3 of the PoA-DD and section B.4 of the generic CPA-DD.

Emission sources not addressed by the methodology

ERM CVS evaluated whether there are any emission sources that will be affected by the generic CPA and are not addressed by the applied methodology.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.3.2	Were any emission sources identified that will be affected by the generic CPA and are not addressed by the selected approved methodology? If so, was clarification of, revision to or deviation from the methodology approved in accordance with required procedures.	No emissions sources other than those addressed by the methodology were identified.	OK	OK

7.4 Baseline identification

As per VVS section 7.12.6, ERM CVS reviewed the PoA-DD to assess whether it correctly identifies the baseline for proposed CPAs, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CPAs.

As per VVS, no alternative analysis is required if the approved methodology that is selected by the proposed CDM PoA prescribes the baseline scenario.

The baseline identification has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.4.1	Does the PoA-DD identify the baseline for a generic CPA, a scenario that represents the anthropogenic emissions by sources of GHG that would occur in the absence of the generic CPA?	Yes. The PoA-DD clearly identifies the baseline scenario as the "use of fossil fuels for meeting similar thermal energy needs". This was confirmed by checking the applied methodology, which defines the baseline.	OK	OK
	Have the procedures/ steps to identify the most reasonable baseline scenario, as required by the methodology(ies) and applicable tools, been documented clearly in the PoA-DD for a generic CPA?	Since the baseline is specified by the methodology, no further procedures / steps to identify the most reasonable baseline scenario are required.	N/A	N/A

Conclusion

Based on the site visit and documentary evidence to cross check the information contained in the PoA-DD as referenced above, ERM CVS confirms that the baseline scenario has been correctly identified in line with the methodology, that all assumptions and data are correct, and that the identified baseline complies with all relevant national and/or sectoral policies and circumstances.

7.5 Algorithms and/or formulae used to determine emission reductions

As per VVS section 7.12.7, ERM CVS has evaluated whether the steps taken and equations applied to calculate project emissions, baseline emissions, leakage, and emission reductions comply with the requirements of the selected baseline and monitoring methodology.

ERM CVS conducted validation activities to determine whether the equations and parameters in the PoA-DD have been correctly applied by comparing them to those in the selected approved methodology. Where the methodology provides for selection between different options for equations or parameters, ERM CVS confirmed that 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 methodology selected.

Ex Ante Data and Parameters

Each parameter required by the methodology and tools for this project type is listed and validated in detail as follows:

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title & description in line with Meth?	Data unit correctly expressed?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
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Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title & description in line with Meth?	Data unit correctly expressed?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
$f_{NRB,y}$	Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass using survey methods or government data or default country specific fraction of non-renewable woody biomass (fNRB) values available on the CDM website	Yes	Yes	Yes	<p>The CME has chosen to set this parameter ex-ante at the PoA level. The correct value for Rwanda is taken from the information note (Default values of fNRB for LDCs and SIDs: http://cdm.unfccc.int/Panels/ssc_wg/meetings/035/ssc_035_an20.pdf). However the value for Ethiopia is not stated. Please see CL 04</p> <p>The correct value for Ethiopia has been included. CL 04 was closed.</p>	<p>Not applicable – default values provided by the CDM EB are used. However the PoA-DD includes procedures for the calculation of the NRB fraction, which are not applicable in this case since the default values are used. Please see CL 04</p> <p>Default values are applied and further procedures for calculating the NRB fraction have therefore been removed from the DD. CL 04 was closed.</p>
$NCV_{biomass}$	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne, wet basis)	Yes	Yes	Yes	Default value applied as per the methodology requirements.	Not applicable
$EF_{projected_fossil\ fuel}$	Emission factor for the substitution of non-renewable woody biomass by similar consumers. Use a value of 81.6 tCO ₂ /TJ4	Yes	Yes	Yes	Default value applied as per the methodology requirements.	Not applicable
η_{old}	<p>1. Efficiency of the system being replaced, measured using representative sampling methods or based on referenced literature values (fraction), use weighted average values if more than one type of system is being replaced;</p> <p>2. A default value of 0.10 may be optionally used if the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney; for other types of systems a default value of 0.2 may be optionally</p>	Yes. This parameter is needed where option 2 from the methodology is used to determine By.savings	Yes	Yes	<p>As per the methodology, a value of 0.10 may be optionally used if the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system. For other systems, a value of 0.2 should be used. However the generic CPA-DD is unclear whether all CPAs will use the default values. Please see CL 04</p> <p>CL 04 was addressed and the CME has adopted weighted average values of η_{old} at the national level. Please see below this table for details of how these values were validated.</p>	Not applicable – default values from the methodology are used. Since more than one type of baseline stove is used, the CME has adopted weighted average values. These are validated in detail below this table.

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title & description in line with Meth?	Data unit correctly expressed?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
	used					
<i>B_{old}</i>	Quantity of woody biomass used in the absence of the project activity in tonnes	Yes. This parameter may be set ex-ante (AMS-II.G, paragraph 13, option a), which is the option selected by the CME. The CME has chosen to set this parameter at the PoA level.	Yes	Yes	The value for Rwanda has been provided. ERM CVS has reviewed the 2007 "National Domestic Biogas Programme Rwanda Baseline Study Report" and confirmed the value. However other studies point to a lower value. The value provided should be further substantiated – please see CL 04. Furthermore a value for Ethiopia was not provided. Please see CL 04 CL 04 was addressed. Please see below this table for details of how the values for Bold for Rwanda and Ethiopia were validated.	Not applicable – literature values are used
<i>L</i>	Leakage related to the non-renewable woody biomass saved by the project activity	Yes	Yes	Yes	Yes, the value is in line with the methodology which requires that a leakage assessment be done to adjust Bold, or a net to gross adjustment factor of 0.95 be applied to account for leakages, in which case surveys are not required. The generic CPA-DD chooses this option for simplification. However it is not clearly stated whether this will apply to all CPAs. Please see CL 04 All CPAs shall use the default 0.95 Net to Gross Adjustment factor to account for leakage. This is now clearly stated in the DD. CL 04 was closed.	Not applicable

Validation of η_{old} (efficiency of the system being replaced):

According to the methodology, to determine the efficiency of the systems being replaced, "A default value of 0.10 may be optionally used if the replaced device is a three stone fire, or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney; for other types of devices, a default value of 0.2 may be optionally used". Because in both of the host countries a mix of stoves is used in the baseline, and because the PoA is open to all households in the host countries, the CME has provided data to demonstrate the proportion of households using a three stone fire, or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney, and the proportion of households using other types of devices. Based on these proportions, a weighted average efficiency of the systems being replaced has been determined. Taking national values is considered conservative by ERM CVS, since the CPAs are actually likely to target lower income groups, who are less likely to use improved cooking stoves than the national average.

Rwanda:

ERM CVS has reviewed a report by the European Union Energy Initiative (2009) /23/ which cites data provided by the Rwandan Ministry of Infrastructure which demonstrates that 47.9% of all households in Rwanda use a traditional stove, and 52.1% use some form of 'improved stove'. The data was based on nationwide survey data with a sample size of 3,000 households, carried out by the Ministry of Infrastructure. However the majority of 'improved stoves' distributed/installed in Rwanda are artisan made mud or clay stoves that do not feature a chimney or grate. According to the Global Alliance for Clean Cookstoves market assessment report for Rwanda /06/, "Various programs have been implemented since, leading to a penetration of 'improved' stoves of over 50% by 2009. However, the quality of these stoves varies greatly; often the improvement versus traditional methods is limited". The most common 'improved' stove types distributed in Rwanda are the mud-built artisan or home built stoves called Rondereza stoves, or mud stoves. These stoves do not include the innovations such as improved combustion air supply or flue gas ventilation, grates or chimneys necessary to be classified as truly improved high-efficiency stoves. The same report states that the population using improved biomass cookstoves in Rwanda is only 0.001% /06/. This therefore excludes users of artisan made stoves such as the Rondereza stove, the most common type of stove promoted under various programmes in the country. This indicates that the Global Alliance for Clean Cookstoves does not classify Rondereza stoves or mud stoves in Rwanda under its definition of 'improved' cookstoves. Improved charcoal stoves have seen greater penetration in the country /06/ however the PoA does not include charcoal stoves nor does it target charcoal users. In order to be accurate, η_{old} should be defined for wood stoves specifically.

Although the Global Alliance for Clean Cookstoves provides a value of 0.001% of wood fuel users in Rwanda using truly improved wood stoves, in order to ensure the most recent data is used, the CME has contracted a local third party organisation, Max Impact, to conduct a survey of baseline stove types in the country /36/. The survey was conducted in 7 Rwandan Districts, with a total of 165 Households being interviewed across all income groups. Survey locations and households were chosen through a stratified random sample, first randomly selecting 7 of 30 districts, then randomly selecting 2 villages within these districts. Finally, 12 households per village were randomly sampled from each income level (Ubedehe) to ensure representativeness. The survey was conducted in the following regions: Gakenke, Rulindo, Kayanza, Bugesera, Rubavu, Muhanga and Nyamagabe – providing wide geographical coverage across the country. ERM CVS has validated that the survey used Sampling approach under the provisions of Guidelines for Sampling and surveys for Project Activities and Programme of Activities /36/. The results show the following breakdown of stove type by wood users:

3-stone fire: 66%
 Rondereza: 29%
 Mud/makeshift stove: 5%
 Improved wood: 1%

The results are in line with the Global Alliance for Clean Cookstoves' findings, and demonstrate that around 99% of baseline users currently use stoves that can be defined as a 'conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney' according to the methodology AMS-II.G. Therefore the CME has calculated a weighted average value of η_{old} taking into account the proportion of households using unimproved stoves, with an efficiency of 0.1 as defined in the methodology AMS-II.G, (approximately 99%) and the proportion of households using improved stoves, with an efficiency of 0.2 as defined in the methodology AMS-II.G (less than 1%). ERM CVS has validated that the resulting value of η_{old} (0.1007) is correct.

Ethiopia:

ERM CVS has reviewed a detailed baseline report provided by the CME which assesses the penetration rate of improved stoves of different types in Ethiopia /34/. The report uses a literature review to assess the different stove types and demonstrates that a mixture of baseline stoves is used, however with a low penetration rate of improved stoves nationally, considering the total number of different improved stoves that have been distributed by various groups in the past. The most authoritative third party data on stove types in the country can be found in the Ethiopia Demographic and Health Survey 2005 by the Central Statistical Agency Addis Ababa, Ethiopia /37/, which was reviewed by ERM CVS and shows that 96.8% of households in the country use traditional stoves. Therefore the weighted average value for η_{old} (efficiency of the system being replaced) in Ethiopia is $(0.1 \times 0.968) + (0.2 \times 0.032) = 0.1032$.

Validation of Bold (Quantity of woody biomass used in the absence of the project activity in tonnes):

Rwanda:

ERM CVS has reviewed a report by the European Union Energy Initiative (2009) /23/ which provides survey data from the Ministry of Infrastructure Biomass Energy Strategy survey (BEST). 3,000 households across all 30 districts of Rwanda were randomly sampled. The survey can be considered official and hence reliable. The survey found that per capita rural wood fuel

consumption is 700 kg annually or 3.364 tonnes of fuel wood per year for each household. The CME has provided a detailed literature review of other reports in order to compare this figure with other literature sources. ERM CVS has reviewed the available literature /22, 25, 26/ and can confirm that it supports the reported value, as the other literature sources related to wood fuel consumption in rural areas provided figures for annual household wood fuel consumption within +/- 10% of the value reported in the BEST report.

Ethiopia:

Wood fuel consumption values have been derived from the 2010 FAO Report: Global Forest resources Assessment 2010: Country Report Ethiopia /27/, which gives the most recent available values from the year 2007 (56,336,038 tonnes wood fuel consumed in Ethiopia per year). Because this report did not break down total wood fuel consumption into household and commercial/industrial use, a report by GIZ (2011) /11/ was used to substantiate that 96% of all biomass is consumed by households. Therefore total household use was determined as 54,082,596 tonnes of wood fuel per year in Ethiopia. Data from the census of Ethiopia in 2007 cited in the baseline report /34/ was used to determine the total population size of the country (73,500,938 people) and the average household size (4.7 persons), therefore allowing the woodfuel consumption per household to be calculated (3.45 tonnes). ERM CVS has reviewed all the references used /27-31/, and reviewed the substantiation of how the value was determined in the baseline report provided by the CME /34/. In the baseline report the CME also provided a detailed review of the available literature in order to compare the value with other available literature sources. Based on the available literature /27-31/ ERM CVS was able to conclude that the FAO data is the most comprehensive and reliable data, and presents the best estimate of household wood fuel consumption in the country.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.5.1	Have the parameters required by the methodology / tools been correctly described in the PoA-DD? Where the methodology provides for selection between different options for data and parameters; is the choice of data and parameters justified?	Where option 3 is used to determine $B_{y,savings}$, SC_{old} and SC_{new} are also ex-ante parameters. Please see CL 04. The PoA-DD now indicates that all CPAs will be required to use Option 2 of paragraph 12 to calculate $B_{y,savings}$. CL 04 was closed.	CL 04	OK
	Have the parameters required by the methodology / tools been correctly described in the generic CPA-DD?	Upon resolution of the CL 03 and CL 04, ERM CVS confirmed that all the parameters required by the methodology / tools have been correctly described in the generic CPA-DD.	TBC	OK

Equations and calculations used to calculate emission reductions

The following steps are applied in the generic CPA-DD to determine emission reductions of proposed CPAs, in accordance with the methodology and tools applied:

Baseline emissions

$$ER_y = B_{y,savings} \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel}$$

ER_y	=	Emission reductions during the year y in tCO ₂ e
$B_{y,savings}$	=	Quantity of woody biomass that is saved in tonnes
$f_{NRB,y}$	=	Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass using survey methods or government data or default country specific fraction of non-renewable woody biomass (f_{NRB}) values available on the CDM website
$NCV_{biomass}$	=	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne)
$EF_{projected_fossilfuel}$	=	Emission factor for the substitution of non-renewable woody biomass by similar consumers. Use a value of 81.6 tCO ₂ /TJ ₄

$B_{y,savings}$ is estimated using option 2:

Option 2:

$$B_{y,savings} = B_{old} * (1 - \eta_{old} / \eta_{new})$$

Where:

B_{old}	=	Quantity of woody biomass used in the absence of the project activity in tonnes
η_{old}	=	Efficiency of the system being replaced, measured using representative sampling methods or based on referenced literature values (fraction), use weighted average values if more than one type of system is being replaced; A default value of 0.10 may be optionally used if the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney; for other types of systems a default value of 0.2 may be optionally used. Please refer to the section above for validation of the values for Rwanda and Ethiopia
η_{new}	=	Efficiency of the system being deployed as part of the project activity (fraction), as determined using the water boiling test (WBT) protocol. Use weighted average values if more than one type of system is being introduced by the project activity

Bold is determined using option (a) (Paragraph 13 of the Methodology):

(a) Calculated as the product of the number of systems multiplied by the estimated average annual consumption of woody biomass per appliance (tonnes/year). This can be derived from historical data or a survey of local usage,

The number of project devices of type i operating in year y will be determined by the following equation:

$$N_{y,i} = n_y * \frac{D_y}{T_y}$$

Where:

n_y	Fraction of distributed ICS operational in year y
D_y	Cumulative number of days which ICSs have been operational in year y
T_y	Days in year y, typically 365, 366 in a leap year

Differentiation between non-renewable and renewable woody biomass

The methodology requires project participants to determine the shares of renewable and non-renewable woody biomass in B_{old} (the quantity of woody biomass used in the absence of the project activity) and determine $f_{NRB,y}$. The CME has chosen to apply the default values from the information note (Default values of f_{NRB} for LDCs and SIDs: http://cdm.unfccc.int/Panels/ssc_wg/meetings/035/ssc_035_an20.pdf).

Project emissions

As per the methodology, there is no calculation of project emissions, and emission reductions are based on fuel savings.

Leakage

The methodology requires that a leakage assessment be done to adjust B_{old} , and for PoAs it also requires that leakage be considered for the use of non-renewable woody biomass saved under the project activity to justify the baseline of other CDM project activities, and an increase in the use of non-renewable woody biomass outside the project boundary to create non-renewable woody biomass baselines. Alternatively the methodology states that for projects, and PoAs, a net to gross adjustment factor of 0.95 be applied to account for leakages, in which case surveys are not required. The PoA chooses this option for simplification.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.5.2	Has the PP correctly applied all relevant calculations as required by the methodology	The CME has correctly described the framework for emission reductions calculations including the relevant formulae in the generic CPA-DD. The calculations will then be applied at the level of each specific CPA.	CL 04	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>and associated tools?</p> <p>Is it fully explained how the procedures provided in the Methodology and applicable Tools are applied by the proposed PoA? (i.e. Are the required steps clearly followed?)</p>	<p>However the following issues were identified in the GSP-generic CPA-DD:</p> <p>Default values provided by the CDM EB are used for f_{NRB}. However the PoA-DD includes procedures for the calculation of the NRB fraction, which are not applicable in this case since the default values are used. Please see CL 04</p> <p>Procedures to calculate the NRB fraction have been removed, since the default values are applied. CL 04 was closed.</p> <p>For leakage, the generic CPA-DD chooses the option to adjust the parameter B old by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. However it is not clearly stated whether this will apply to all CPAs, and the PoA-DD refers to monitoring leakage as well. Please see CL 04</p> <p>It is now clearly stated that the default net to gross adjustment factor to account for leakage will be applied to all CPAs. CL 04 was closed.</p>		
	<p>Where the methodology or tool(s) provides for selection between different options for equations; is every choice of options for calculating project emissions, baseline emissions and leakage offered by the methodology correctly justified in the context of the PoA and baseline scenario?</p>	<p>The CME has provided the framework for calculation of emission reductions. The following methodological choices have been made at the POA level:</p> <p>f_{NRB} is taken from the information note (Default values of f_{NRB} for LDCs and SIDs: http://cdm.unfccc.int/Panels/ssc_wg/meetings/035/ssc_035_an20.pdf).</p> <p>Option 2 is used to determine $B_{y,savings}$, and η_{old} will be determined based on the default values provided in the methodology.</p> <p>B_{old} (wood) (Quantity of woody biomass used in the absence of the project activity in tonnes) is set ex-ante (AMS-II.G, paragraph 7, option a).</p> <p>The default net to gross adjustment factor to account for leakage will be applied to all CPAs.</p> <p>The other methodological choices will be determined only at the CPA level.</p> <p>For those methodological choices taken at PoA-level, the generic CPA-DD does not sufficiently explain/justify the choices. Please see CL 04.</p> <p>The DD was revised to sufficiently explain and justify, where necessary, the methodological choices. CL 04 was closed. Please see appendix B, and the validation of methodological choices above, for details of how this was validated.</p>	CL 04	OK
	<p>Are the formulae required for the determination of project emissions, baseline emissions and leakage correctly presented in a complete and transparent manner, enabling a complete identification of parameters to be used and / or monitored?</p>	<p>The CME has correctly described the framework for emission reductions calculations including the relevant formulae in the generic CPA-DD. The calculations will then be applied at the level of each specific CPA.</p>	OK	OK
	<p>If applicable, are detailed calculations provided in a traceable spreadsheet showing relevant information?</p>	<p>Not applicable. The emission reduction calculations will be carried out at CPA level.</p>	N/A	N/A

Conclusion

The PoA-DD correctly applies the methodology and appropriate tools to provide a framework for calculating the emission reductions of a generic CPA. All assumptions and data used are properly listed, including references and sources where applicable. Calculation of actual baseline, project and leakage emissions will be made only at CPA level.

8 Validation findings – Additionality

As per the VVS sections 7.12.8 to 7.12.13 and 8.4.8, as well as the ‘Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities’ (CDM-EB65-A03-STAN), ERM CVS assessed the PoA-DD to determine whether it clearly describes how the proposed CDM PoA is additional, as supported by sufficient and appropriate evidence. In accordance with the standard, additionality must be demonstrated for the POA as a whole, and it must be demonstrated that each of the individual CPAs are additional. As per the CDM Project Standard, the CME must demonstrate that the proposed CDM PoA is additional in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”. A full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria.

As per the ‘Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities’, additionality of a PoA must be demonstrated by establishing that in the absence of CDM, none of the implemented CPAs would occur. PoAs that will include one or more microscale projects as CPA shall include eligibility criteria derived from all the relevant requirements of the ‘Guidelines for demonstrating additionality of microscale project activities’. PoAs that will include one or more small-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of Attachment A of Appendix B of the Simplified modalities and procedures for small-scale CDM project activities. PoAs that will include one or more large-scale projects as CPA shall include eligibility criteria derived from all the relevant requirements contained in the additionality section of the large-scale methodology(ies).

ERM CVS has validated the additionality of the PoA as a whole and that the PoA-DD includes adequate eligibility criteria to ensure the additionality of individual CPAs, as per the CDM Project standard. ERM CVS has ensured that all additionality guidelines set out in the approved methodology and tools have been included within the CPA eligibility criteria. ERM CVS assessed and verified the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by the PPs to support the demonstration of additionality in order to critically assess the presented evidence, using local knowledge and sectoral and financial expertise.

In undertaking this aspect of the validation, ERM CVS considered tools and documents provided by the CDM Executive Board to demonstrate the additionality of proposed CDM PoA, as well as specific complementary or alternative requirements included in the approved CDM methodology.

In the sections below, ERM CVS describes all steps taken, and sources of information used, to cross-check the information contained in the PoA-DD on additionality. Where appropriate, we describe how the validation team determined that the documentation assessed is authentic.

8.1 Starting date of the PoA

As per the project standard, paragraph 29, the requirements for prior consideration of the CDM do not apply to PoAs. As per the project standard, paragraph 57, project participants are required to determine the start date of the proposed CDM project activity and provide a description of how this start date has been determined. As per the Glossary of CDM Terms, in the context of a CDM PoA the start date is the date on which the coordinating/managing entity 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. In the case of this PoA, the start date is defined as the date of publication of the PoA-DD for global stakeholder consultation, i.e. 30 October 2012. Based on the site visit ERM CVS can confirm that to its knowledge there is no component of the programme that commenced prior to the start of validation.

8.2 Identification of alternatives

The approved methodology that is selected by the proposed CPA prescribes the baseline scenario and no further analysis is required. The methodology defines the baseline as follows: “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”. Therefore no further assessment of baseline alternatives is required.

8.3 Assessment of additionality of a CPA

As confirmed in section 6.1 of the validation report, eligibility criteria include a condition that each CPA needs to demonstrate additionality. ERM CVS has validated whether compliance with the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met.

Validation of how the framework was used in the first real case CPA is described in a separate CPA validation report.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.4.1	Does the description of assessment of CPA additionality correctly follow the methodology and relevant tool(s) and guidance?	<p>Additionality is determined by demonstrating that in the absence of CDM, none of the implemented CPAs would occur. Additionality is demonstrated as per the Guidelines on the Demonstration of Additionality of Small-Scale Project Activities (Version 09.0). As per the guidelines, documentation of barriers is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds, including Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds.</p> <p>The proposed PoA and all CPAs will distribute improved cook stoves, which are isolated units, to households and institutions. Each unit is less than 5% of the small scale CDM thresholds, and therefore meets the requirements of the positive list. This is assured by means of the eligibility criteria, which require that:</p> <ul style="list-style-type: none"> • ICSs shall be proved to be isolated units from Water Boiling Test and any supporting documentation confirming that the units are indeed isolated units intended for use at a single household. • The target group definition in Section D.5 of the CPA-DD shall clearly describe that households are the intended recipients of the ICSs distributed in the CPA. • In Section D.5 of the CPA DD the CPA operator shall provide demonstrate using equations derived or modified from the small scale baseline and monitoring methodology AMS-II.G that each ICS doesn't exceed 5% of the 180 GWh cap on thermal energy savings under the methodology. 	OK	OK

Conclusion:

The PoA-DD contains sufficient framework to assure that in the absence of CDM, none of the implemented CPAs would occur. Additionality will be further validated at the level of each CPA by validating whether the CPA complies with the eligibility criteria.

9 Validation Findings - Operational, management and monitoring plan for the programme of activities

As per VVS section 8.4.1 ERM CVS has validated the management system described in the PoA-DD in accordance with the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities' (CDM-EB65-A03-STAN). According to the requirements, the CMEs shall have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. ERM CVS has validated the management system as developed and implemented by the CME as follows.

9.1 Operation and Management Plan

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.1.1	Has the CME demonstrated that there is an operational and management system for the implementation and management of the PoA?	<p>Yes, the CME has developed an operation and management plan for the PoA ('CME Procedure Book') /13/. This is also described and summarised in the PoA-DD section C.</p> <p>However there are some inconsistencies between the information presented in the PoA-DD and the CME procedures book. Please refer to CL 05</p> <p>The inconsistencies were corrected. CL 05 was closed. Please refer to appendix B for details.</p>	CL 05	OK
9.1.2	Does the operational and management system include clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies?	<p>The PoA-DD, section C, includes a description of the process of inclusion of CPAs. However the specific roles within the CME organisation, and the required competencies of the individuals to be assigned to each role, are not clearly stated in the PoA-DD. Please see CL 05</p> <p>The specific roles within the CME organisation, and the required competencies of the individuals to be assigned to each role, have now been clearly stated in the PoA-DD. CL 05 was closed. Please refer to appendix B.</p> <p>The CME Procedure Book /13/ includes the roles and responsibilities of CME staff, including a GS/CDM Programme Manager, CDM Technical Consultant, CDM Monitoring Liaison, and a Data & Reference Documentation Administrator. The roles of the GS/ CDM manager are primarily to co-ordinate and manage the CME team to ensure that all the responsibilities of the CME are satisfactorily performed, including checking the technical review of inclusion of a proposed CPA into the PoA. The role of the CDM technical consultant is to provide the technical GS/CDM knowledge for evaluating the inclusion of potential CPAs and for the monitoring report and emission reduction calculations. The CDM technical consultant will perform the technical analysis for inclusion of a proposed CPA in the PoA. The role of the CDM monitoring liaison is to manage and co-ordinate the monitoring that is required by the CPA from a CME perspective. The role of the data and reference document administrator is to provide administrative support to the CME with respect to all CPA documentation and monitoring data and information.</p> <p>The CME procedure book /13/ includes the competency requirements of each role. For example the GS/CDM manager must have the following competencies;</p> <ul style="list-style-type: none"> -Familiarity with legislation and policies affecting various aspects of small scale AMS-II.G projects; -Understanding and expertise of management and monitoring systems in general; -Knowledge of CDM processes and the VVS track; -Knowledge of the Gold Standard validation and verification process -Direct or related work experience in project management and consultancy; -Detailed or related experience in quality assurance and quality control of the project management systems <p>Specific competencies are defined for each role, and these are considered to be suitable for the roles in carrying out the technical review of inclusion of CPAs,</p>	CL 05	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		based on ERM CVS's local and sectoral knowledge. ERM CVS also interviewed members of the CME on site and confirmed that they had a good understanding of the CDM requirements and the requirements for inclusion of CPAs into the PoA.		
9.1.3	Does the system include records of arrangements for training and capacity development for personnel?	<p>The CME Procedure Book /13/ includes provisions for training sessions on CDM Awareness (one off), Monitoring Procedures (annually), and CDM Continuous Improvement (update on the latest tools, guidance and decisions of the EB) (at least annually). In addition the manual describes that a selection from the following methods will be undertaken to ensure capacity development:</p> <ul style="list-style-type: none"> i. Practical training such as customised programs, site placements and/or secondments; ii. Coaching and mentoring; iii. Workshops, presentations and/or seminars; iv. Establishing and facilitating networks between people, groups and organisations; v. Site visits and study tours; vi. Education in the form of external or online courses, integration into university curriculums and research grants; and vii. Best practice guidelines and brochures <p>The system therefore includes sufficient arrangements for training and capacity development for personnel.</p> <p>However records of training sessions already held and a schedule of future trainings has not been provided. Please see CL 05.</p> <p>ERM CVS has reviewed training records and provisions for future training. CL 05 was closed. Please refer to appendix B.</p>	CL 05	OK
9.1.4	Does the system include procedures for technical review of inclusion of CPAs?	<p>The technical review of inclusion of CPAs shall be done according to the eligibility criteria set out in the PoA-DD. The CME Procedure Book /13/ includes further guidance on how the criteria should be assessed. However a clear set of steps or procedures showing the process by which this technical review will take place is not included in the Procedure Book, and the text included in section C of the PoA-DD does not accurately describe the process. Please see CL 05</p> <p>A clear set of steps or procedures showing the process by which this technical review will take place has now been provided. CL 05 was closed. Please refer to appendix B.</p>	CL 05	OK
9.1.5	Does the system include 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 as a CPA of another PoA)?	<p>The procedure to avoid double counting described in the PoA-DD section C relies on the unique numbering system of each stove. However during the site visit it was observed that for the EzyStove model to be disseminated in the first two CPAs, the serial number will be marked only on the combustion chamber part of the stove, which is replaceable, because it will not be possible to add a serial number to the stove frame. The serial number will be on the underside of the combustion chamber, hence it will not be accessible if the stove is in use during a household survey visit, and furthermore the serial number could become entirely obscured through use of the stove over time. Therefore the criterion related to double counting should be clarified. Please see CL 06</p> <p>The CME has revised the description of the unique identification system for each stove. The criteria have been broadened to include serial numbers and batch numbers, which identifies each stove as part of the CPA. As long as all elements are clearly identified with a clearly visible serial number, this shall ensure that ICS are not included in any other project or PoA. CL 06 was closed.</p>	CL 06	OK
9.1.6	Does the system include records and documentation control process for each CPA under the PoA?	<p>The PoA-DD includes a brief summary of record keeping points. The CME procedure Book /13/ provides more details on record and documentation control, including QA/QC checks and controls of information added to the CPA Database at the level of the CPA and at the level of the PoA, for example the CME will review the data from CPA implementers and produce monthly reports, data entered into the system manually can be edited by the Data and Reference Documentation Administrator but requires managerial approval, any changes to</p>	CL 05	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>incorrect data will be tracked and time stamped and an explanation for the changes should be recorded, etc.</p> <p>However the system does not include specific procedures for document control. For example during the site visit ERM CVS observed that some documents were not dated. Please see CL 05.</p> <p>Procedures for document control have been included. CL 05 was closed. Please refer to appendix B.</p>		
9.1.7	Does the system include measures for continual improvements of the PoA management system?	<p>The CME procedure book /13/ states that the findings of the monthly progress reports shall be reviewed to drive continuous improvements measures at the CPA level and where possible at the CME level. The PoA-DD includes further measures for continuous improvement, namely:</p> <p>Increased use of information technology for data collection and recording at the point of sale or distribution. Where possible, advanced technologies such as SMS registration, GPS location tagging and QR Code stickers will be used to aid the collection of monitoring data over time.</p> <p>Increased frequency of monitoring interviews before annual monitoring pre verification to ensure after sales support and proper use of the Improved Cook Stoves</p> <p>However the mechanisms for generating continuous improvements over time (such as internal audits or annual reviews) are not described. Please see CL 05</p> <p>The operation and management plan was revised to include further measures for continuous improvement, namely:</p> <ul style="list-style-type: none"> - Annual review of data collection and data entry. - Annual internal PoA management appraisals to assess CME performance and the operational efficiency of the PoA. <p>The measures for continuous improvement are considered to provide for adequate monitoring and improvement of performance of the PoA management system. CL 05 was closed.</p>	CL 05	OK

Conclusion

ERM CVS has assessed the operational and management arrangements which have been established by the CME in order to determine that these arrangements are suitable for the PoA being validated. The arrangements are considered to be sufficient to ensure that the CME will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme.

9.2 PoA Sampling Plan

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.2.1	Has the CME chosen to produce a sampling method/procedure for use by DOEs rather than have all	<p>ERM CVS checked the sampling plan in sections B.3 of Part I and B.7.2 of Part II, and CAR 03 was raised to correct and clarify the sampling plan, for the following reasons:</p> <ul style="list-style-type: none"> • The parameters to be obtained by means of sampling are not 	CAR 03	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>CPAs verified?</p> <p>Is the proposed sample size and sampling method adequate to achieve the minimum confidence/precision requirements? Is the DOE able to reproduce the sample size calculation in order to validate the proposed sample size?</p> <p>Will the proposed sampling plan ensure that samples are randomly selected and are representative of the population?</p>	<p>consistent between sections B.3 of Part I, section B.7.1 and B.7.2 of Part II</p> <p>> Section B.3 of the PoA-DD and section B.7.1 and B.7.2 of the generic CPA-DD (part II of the PoA-DD) are now consistent after revisions were made. The following parameters will be monitored by sampling:</p> <p>n_y: Fraction of ICS still in operation in year y</p> <p>$\eta_{new,y}$: Efficiency of ICS in year y</p> <p>SM_y: Fraction of meals in a week cooked on the project stove in year y</p> <ul style="list-style-type: none"> The sampling plan does not clearly distinguish between ex-ante sampling and surveys and sampling for ex-post monitoring <p>> The sampling plan has been revised together with revisions to ex-ante parameters: sampling will only be used for ex-post monitoring. This is in line with the way baseline parameters are identified according to the revised PoA-DD.</p> <ul style="list-style-type: none"> Confidence/precision requirements for different parameters are not consistent and not clear: 90/10, 95/10 <p>> Competence/precision requirements have been corrected to consistently refer to 95/10, as sampling will be undertaken across CPAs per host country. This is in compliance with the Standard for sampling and surveys for CDM project activities and programme of activities, version 03</p> <ul style="list-style-type: none"> It is not clear if single sampling plan across the whole PoA will be used, or sampling across CPAs within each country. Clear justification needs to be provided in line with the required justification elements. <p>> The revised sampling plan is clear that sampling will be done for each country and across CPAs within any country. I.e. sampling will be common across CPAs of each country. The justification for using a common sampling plan across CPAs of a country has been included. Based on review of baseline studies for Ethiopia and Rwanda /34-36/ and ERM CVS's sector knowledge, end users within a host country can be considered homogeneous with respect to the monitoring parameters as long as differences in stove models/types are taken into account by using stratified sampling approach (refer to the bullet point below for sampling approach). Fraction of ICS still in operation, efficiency of stoves, and fraction of meals cooked on the project stove are not expected to have regional differences within the same country, and their variability would depend more on the stove size, model/type and user acceptability, which in turn is affected by stove design features including performance, and stove quality.</p> <ul style="list-style-type: none"> The sampling approach is not clear and not consistent: different parts of the PoA-DD refer to random sampling and systematic sampling. <p>> The revised sampling plan clarifies that the sampling method for all three monitored parameters is stratified random sampling, where the stoves are split into strata according to stove type in terms of efficiency and usage features. The approach is suitable – as explained above, the main variations of monitored parameters within a country are expected to be caused by stove design features, quality and efficiency. As target group does not vary, it is sufficient if variation in stove type is taken into account by using stratified sampling. The approach is in line with the Guidelines for sampling and surveys for CDM project activities and programme of activities, version 02.</p> <ul style="list-style-type: none"> Estimated/expected parameter values are not provided, and different sample sizes are suggested in sections B.3 and B.7.2 without providing justification how they were derived, therefore DOE is not able to reproduce sample size calculations. <p>> Examples of sample size calculations are provided with estimated parameter</p>		

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>values per strata and their variance. The Paradigm Project can draw on its experience of implementing Gold Standard cookstove projects to estimate parameter values for this PoA. The sample size will have to be calculated in advance of each monitoring survey according to the CPAs included in the PoA at a time and their split into stove types within each country. Sample size is calculated separately for each host country. As and when the PoA covers stoves of varying age, a higher variance will be assumed for parameters in determining sample size. The formulae and approach for calculating sample size is in accordance with the Guidelines for sampling and surveys for CDM project activities and programme of activities, version 02. The DOE was able to reproduce sample size calculations using the assumed expected parameter values.</p> <ul style="list-style-type: none"> The version of the standard referred to in the PoA-DD is not the latest valid version. <p>> Section B.3 of the PoA DD has been revised to reflect Annex 4 of EB 69 (version 03 of the Standard for sampling and surveys for CDM project activities and programme of activities), which is the latest version of the sampling standard.</p> <p>CAR 03 was therefore closed.</p>		

Conclusion

The proposed sampling plan for this PoA is in line with the Standard for sampling and surveys for CDM project activities and programme of activities. It is expected to provide parameter value estimates in an unbiased and reliable manner. The proposed sample size and sampling method is adequate to achieve the minimum confidence/precision requirements, and these requirements are correctly set in line with the standard. The proposed sampling plan is sufficient to demonstrate that samples are randomly selected and are representative of the population

10 Validation Findings - Monitoring plan of a Generic CPA

As per VVS section 8.4.11 ERM CVS evaluated the monitoring plan for the generic CPA to ensure that it is based on the approved monitoring methodology that has been applied. As per the VVS section 7.12.14, ERM CVS applied a two-step process, based on review of the documented procedures, interviews with relevant personnel, project plans and any physical inspection, to assess:

- a) *Compliance of the monitoring plan with the approved methodology:*
 - (i) By means of document review, identify the list of parameters required by the selected approved methodology;
 - (ii) Confirm that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the methodology.
- b) *The Implementation of the monitoring plan, taking into account:*
 - (i) Whether the monitoring arrangements described in the monitoring plan are feasible within the generic CPA design;
 - (ii) Whether the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed CPAs and PoA can be reported ex post and verified.

10.1 Compliance of the monitoring plan with the approved methodology

ERM CVS validated whether the monitoring plan for a generic CPA in the PoA-DD includes all parameters necessary for monitoring of this type of project in accordance with the approved methodology that has been applied for the generic CPA. ERM CVS checked whether the parameters are clearly described and the means of monitoring described in the plan complies with the requirements of the methodology.

Completeness of monitoring parameters

The monitoring parameters required by the methodology and applicable tools are:

Parameter Name	Parameter Description	Is the parameter appropriately included in the Monitoring Plan? (including justification and substantiation of information, data and evidence)
S_y	Number of distributed ICS in year y	Yes, number of distributed ICS is included in the monitoring plan, however the indexes were not explained – please see CL 07. CL 07 was resolved and the indexes are now properly included. Please see appendix B for details.
η_{new}	Efficiency of appliances or a sample thereof	Yes, parameter is included with a description “efficiency of the device being deployed as part of the project activity in year y”
Operational check, in this POA denoted as n_y	Fraction of distributed ICS operational in year y (the parameter introduced to comply with the methodology requirement “Check of appliances or a representative sample thereof to determine if they are still operating or are replaced by an equivalent in service appliance”)	No, the parameter was not included in the monitoring plan – please see CAR 04 CAR 04 was addressed: The monitoring plan of a typical CPA includes parameter n_y , the Fraction of distributed ICS operational in year y. A survey will be undertaken annually to determine whether or not ICS are still operational. The survey will involve an interview with the user and a visual inspection of the ICS. The survey will follow the sampling requirements as per AMS-II.G version 05 and the Standard for sampling and surveys for CDM project activities and programme of activities”, EB 69, Annex 4. CAR 04 was closed.
$B_{y,new}$	Annual quantity of woody biomass used during the project	The parameter is required to be monitored if option 1 for determining $B_{y,savings}$ is used. The GSP PoA-DD included option 1 for determining the parameter

Parameter Name	Parameter Description	Is the parameter appropriately included in the Monitoring Plan? (including justification and substantiation of information, data and evidence)
	activity in tonnes, measured as per the Kitchen Performance Test (KPT) protocol	<p>$B_{y,savings}$ but parameter $B_{y,new}$ was not included in the monitoring plan – please see CAR 04</p> <p>CAR 04 was addressed: The generic CPA-DD specifies that each CPA shall use Option 2 Equation 3 of the baseline and monitoring methodology AMS-II.G to calculate the parameter $B_{y,savings}$. Therefore parameter $B_{y,new}$ does not need to be included in the monitoring plan. CAR 04 was closed.</p>
$HG_{p,y}$	Amount of thermal energy generated by the project technology in year y (TJ)	<p>The parameter is required to be monitored if option b for determining parameter B_{old} is used. The GSP PoA-DD included option b for determining the parameter B_{old} but parameter $HG_{p,y}$ was not included in the monitoring plan – please see CAR 04</p> <p>The revised generic CPA-DD now states that all CPAs shall calculate baseline emissions following paragraph 13 (a) of the methodology. Therefore parameter $HG_{p,y}$ does not need to be included in the monitoring plan and was correctly deleted from the PoA-DD. CAR 04 was closed.</p>
L	Leakage: data on the amount of woody biomass saved under the project activity that is used by non-project households/users who previously used renewable energy sources; other data on non-renewable woody biomass use required for leakage assessment	<p>No, the parameter was not included in the monitoring plan, although the description of leakage assessment in section B.6.1 included it – please refer to CAR 04</p> <p>The revised generic CPA-DD states that the parameter B_{old} is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required in all CPAs included in the PoA. No leakage surveys shall therefore be conducted. CAR 04 was closed.</p>
SM_y	Methodology requirement - continued use of replaced low efficiency appliances; in this PoA – parameter “fraction of meals in a week cooked on the project stove in year y”	<p>According to the methodology, the monitoring shall ensure that:</p> <ul style="list-style-type: none"> a) Either the replaced low efficiency appliances are disposed of and not used within the boundary or within the region; or b) If baseline stoves continue to be used, monitoring shall ensure that the fuel-wood consumption of those stoves is excluded from B_{old}. <p>The monitoring plan did not include provisions to ensure this requirement of the methodology is met. Please see CAR 04</p> <p>The monitoring plan has been revised. Monitoring shall ensure that the fuel-wood consumption of second stoves is excluded from B_{old} by determining the parameter SM_y. SM_y represents the fraction of times meals are cooked with the project stove compared to the total number of times meals are prepared on the project stove and the baseline stove combined, and will be determined through a sampling survey. CAR 04 was closed.</p>

In addition to the parameters required to be monitored by the methodology, the PP has included a parameter D – number of days which the ICSs have been operational in each year of the crediting period. This parameter is needed for establishing when stoves can start to be credited. However, it was not clear in the GSP PoA-DD if this data will be monitored for each project stove based on actual dates in purchase receipts, or if it will be based on estimations. Please refer to CL 09. Section B.7.1 of the revised PoA-DD includes parameter D_y , Cumulative number of days which ICSs have been operational in year y, which will be calculated based on the number of days in a year y that every stove was operational. Operational start date of every stove will be determined based on the date it is sold to the distributors and an average time lag between sales to distributor and sales to end users will be determined. This average time lag will be determined using a turnover analysis and cross-checked against sales receipts to confirm that the estimated time lag is appropriate. Based on the description of the databases, the dates of sales to the distributors will be recorded for all stoves, and the dates of sales to the final end users will be recorded as part of the detailed customer database, i.e. for part of the total sales. CL 09 was closed.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1	Are all required parameters included in the monitoring plan?	<p>Although section B.6.1 of the GSP PoA-DD included various options provided by the methodology for calculating biomass savings, not all parameters associated with those options were included in the section B.7.1:</p> <ul style="list-style-type: none"> a) Section B.6.1 includes option 1 for determining the parameter $B_{y,savings}$ but parameter $B_{y,new}$ is not included in the monitoring plan b) Section B.6.1 includes option b for determining the parameter B_{old} but parameter $HG_{p,y}$ is not included in the monitoring plan c) Section B.6.1 includes a description of assessing leakage by monitoring the amount of woody biomass saved under the project activity that is used by non-project households/users, however this is not included in the monitoring plan <p>CAR 04 was raised</p> <p>The PoA-DD/Generic CPA-DD was revised. $B_{y,savings}$ will be determined using option 2 from paragraph 12, and all CPAs shall calculate the baseline quantity of woody biomass (Bold) following paragraph 13 (a) of the methodology. Therefore parameters $B_{y,new}$ and $HG_{p,y}$ do not need to be included in the monitoring plan and were correctly deleted from the PoA-DD. The default net-to-gross adjustment factor will be used to account for leakage, therefore monitoring of leakage is not required and discussion of this has been removed. CAR 04 was closed.</p> <p>The monitoring plan in the GSP PoA-DD did not include clear provisions for the following checks required by the methodology:</p> <ul style="list-style-type: none"> a) Check of appliances or a representative sample thereof to determine if they are still operating or are replaced by an equivalent in service appliance b) Provisions to ensure that: <ul style="list-style-type: none"> • Either the replaced low efficiency appliances are disposed of and not used within the boundary or within the region; or • If baseline stoves continue to be used, monitoring shall ensure that the fuel-wood consumption of those stoves is excluded from B_{old}. <p>CAR 04 was therefore raised</p> <p>The monitoring plan was revised. The monitoring plan of a typical CPA includes parameter n_y, the Fraction of distributed ICS operational in year y. A survey will be undertaken annually to determine whether or not ICS are still operational. A parameter SM_y was also introduced – fraction of meals in a week cooked on the project stove in year y, in order to ensure that the fuel-wood consumption, if any, on old stoves is taken out of B_{old}. Please see appendix B for details. CAR 04 was closed.</p>	CAR 04	OK

Conclusion

The monitored parameters included in the monitoring are complete and appropriate for monitoring of the generic CPA. In ERM CVS's opinion, the PPs are able to implement the monitoring plan.

10.1.1 Compliance of monitoring

For each parameter, ERM CVS has validated whether it has been addressed in accordance with the baseline and monitoring methodology.

Monitored Parameters	$S_{i,y}$ (Number of distributed ICS in year y)	η_{new} (Efficiency of the device being deployed as part of the project activity in year y)	D_y (number of days which the ICSs have been operational in each year of the crediting period)
Parameter Description correct?	Yes – first the parameter title $N_{i,y}$ was used and indexes i and j were not explained. Please see CL 07 CL 07 was closed – please see appendix B. The monitoring parameter is now S_y , number of stoves distributed	Yes	N/a. The parameter is not defined by the methodology
Description in line with methodology?	The parameter is not defined by the methodology but it is implicit that the number of stoves distributed has to be monitored.	Yes, the meaning is the same	N/a. The parameter is not defined by the methodology. The description is provided in section B.6.3 of part II the PoA-DD and below the table in section 10.1 above
Data unit correctly expressed?	N/a	Yes	N/a
Measurement method correctly described?	Yes, based on database	Yes - Water boiling test. It is not clear if tests would be conducted in the field – please see CL 8. CL 8 was addressed – please see appendix B.	The parameter is not defined by the methodology. Nonetheless, the method is not clear: it is not clear if the date when unit reaches a household will be recorded for every ICS. Please see CL 09 CL 09 was closed – please see appendix B
Measurement and recording frequency correctly described?	Biennial monitoring is suggested, which is not clear considering continuous sales of the stoves. Please see CL 07 CL 07 was closed – see appendix B	Yes, biennial monitoring is allowed (once every two years)	The monitoring plan refers to annual monitoring but this is not clear, as dates would need to be recorded continuously. Please see CL 09 CL 09 was closed – please see appendix B
Correct reference to standards?	N/a	Clear reference to a standard protocol for water boiling test is not provided – please see CL 08 CL 08 was closed – please see appendix B	N/a

Monitored Parameters	$S_{i,y}$ (Number of distributed ICS in year y)	η_{new} (Efficiency of the device being deployed as part of the project activity in year y)	D_y (number of days which the ICSs have been operational in each year of the crediting period)
Indication of accuracy provided?	N/a	Sample size and confidence/precision requirements are covered in the sampling plan	N/a
QA/QC procedures described?	Not sufficiently – please refer to CL 08 CL 08 was closed – please see appendix B	Yes	Yes
QA/QC procedures appropriate?	No – please refer to CL 08 CL 08 was closed – please see appendix B	Not sufficient – please see CL 08 CL 08 was closed – please see appendix B	Not sufficient – please see CL 09 CL 09 was closed – please see appendix B

Monitored Parameters	SM_y (Fraction of meals in a week cooked on the project stove in year y)	n_y (Fraction of distributed ICS operational in year y)
Parameter Description correct?	n/a – the parameter is not explicitly defined by the methodology but was introduced in order to comply with paragraph 26 of the methodology	Yes
Description in line with methodology?	n/a – the parameter is not defined by the methodology	n/a – the parameter is not defined by the methodology, although implicitly is required to be monitored
Data unit correctly expressed?	yes	yes
Measurement method correctly described?	Yes – based on a survey	Yes – based on a survey of a sample of end users, and sampling is described in the sampling plan
Measurement and recording frequency correctly described?	Yes – based on an annual survey	Yes - annual
Correct reference to standards?	n/a	n/a
Indication of accuracy provided?	Sample size and confidence/precision requirements are covered by the sampling plan	Sample size and confidence/precision requirements are covered by the sampling plan
QA/QC procedures described?	Yes	Yes
QA/QC procedures appropriate?	Yes – QA/QC procedures related to sampling are described as part of the sampling plan	Yes. QA/QC procedures related to sampling are described as part of the sampling plan

Other monitoring parameters mentioned in the methodology – $B_{y,new,KPT}$, $B_{y,new,survey}$, $SC_{new,y}$, and $HG_{p,y}$ – do not have to be monitored in line with the validated methodological choices, because all CPAs will use option 2 of paragraph 12 and use provisions of paragraph 13(a).

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1.2	Are all required parameters appropriately monitored in accordance with the methodology (including applicable tools)?	<p>CL 07 was raised to clarify monitoring of the number of stoves distributed:</p> <ul style="list-style-type: none"> Indexes i and j are not described Please clarify what will be the primary basis for recording number of stoves, and what checks will be performed on the database How biennial monitoring can be suitable if stoves are sold continuously <p>The means of monitoring the number of stoves distributed and then calculating the number of stoves that are operational were clarified in the monitoring plan, and the frequency of recording was corrected. CL 07 was closed. Please see appendix B.</p> <p>CL 08 was raised to clarify how thermal efficiency of project stoves will be monitored:</p> <ul style="list-style-type: none"> Section B.7.1 refers to conducting water boiling tests but section B.7.2 does not describe conducting such tests and instead refers to monitoring efficiency using monitoring surveys, although it is not clear how efficiency can be checked by means of a survey. Please provide reference to a standard protocol that should be used in the monitoring. For example it is not clear if field-based tests will be conducted and what the length of boiling will be (it is not clear if the method will be consistent between tests of old and new stoves). <p>The PoA-DD now consistently refers to determining the thermal efficiency of project stoves by means of conducting Water Boiling Tests (WBTs) on a sample of stoves. The PoA-DD refers to the Partnership for Clean Indoor Air (PCIA) WBT protocol, which is an internationally-accepted methodology. A consistent approach will be taken following either laboratory or field tests. CL 08 was closed.</p> <p>CL 09 was raised to clarify how number of days when stoves have been operational in a year will be recorded: it is not clear if the date when unit reaches a household will be recorded for every ICS or calculated; and in the latter case on what basis and how it would be done; in addition, monitoring plan refers to recording date of sales in a different way – during monitoring surveys. Depending on the method/procedure, it is not clear if annual monitoring is suitable. QA/QC procedures described appear to be part of the monitoring procedure rather than quality control measures. Please also clarify how the parameter will be used – section B.6.1 or B.6.3 does not include reference to it.</p> <p>Section B.7.1 of the revised PoA-DD includes parameter D_y, Cumulative number of days which ICSs have been operational in year y, which will be determined based on the date it is sold to the distributors and an average time lag between sales to distributor and sales to end users. This average time lag will be determined using a turnover analysis and cross-checked against sales receipts to confirm that the estimated time lag is appropriate. CL 09 was closed. Please see appendix B for details.</p>	<p>CL 07</p> <p>CL 08</p> <p>CL 09</p>	OK

Conclusion

The means of monitoring all relevant monitored parameters for a generic CPA complies with the requirements of the methodology, including applicable tools.

10.2 Implementation of the monitoring plan

ERM CVS evaluated the feasibility and sufficiency of the monitoring plan for a generic CPA. The key components of the monitoring plan are as follows.

Operational and management structure:

The monitoring plan describes what kind of information will be collected in two databases but not the system that will be used to collect it – please see CAR 05. In the revised monitoring plan, the data to be collected in the databases has been clarified. CAR 05 was closed. Please refer to appendix B.

Equipment:

The monitoring will be based on recording sales/distribution, and conducting surveys and water boiling tests or kitchen performance tests. For water boiling tests, a thermometer would be used. Apart from this, there is no equipment involved in the monitoring of this PoA.

Quality Assurance and Quality Control (QA/QC) of equipment and data:

QA/QC procedures include theoretical and practical training for surveyors, testing questionnaires before use, procedures for dealing with non-responsiveness, analysing data for outliers, and conducting water boiling tests in accordance with the Partnership's for Clean Indoor Air WBT Protocol. The procedures are suitable for the proposed monitoring activities. .

Feasibility of the monitoring plan:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.2.1	Are the arrangements described in the plan feasible and practical? Please consider: (a) operational and management structure, including responsibilities (b) Plans for maintenance and calibration of equipment (c) Plans for QA/QC of equipment and data (d) Installation of monitoring equipment (whether in place, or planned)	<p>The monitoring plan framework set out in the PoA DD was validated by means of interviews with representatives of the CME and their CDM consultants.</p> <p>The monitoring plan is not complete:</p> <ul style="list-style-type: none"> The monitoring plan describes what kind of information will be collected in two databases but it does not clearly describe systems and procedures for collecting different types of data, as well as associated QA/QC procedures. The plan lacks description of how sales/distribution data, customer details, and dates when stoves reach households will be recorded. It also does not include provisions for conducting water boiling tests and (if applicable) kitchen performance tests <p>CAR 05 was therefore raised</p> <p>The revised monitoring plan makes it clear what data will be collected in the databases. The QA/QC procedures have been clarified. Details of how sales/distribution data, customer details, and dates when stoves reach households will be recorded and calculated, have been added. Provisions for conducting water boiling tests have been included, and it was made clear that kitchen performance tests will not be used. CAR 05 was closed. Please see appendix B for details.</p> <p>Please also refer to CAR 03 on the sampling plan – the sampling plan is not in compliance with the Standard on sampling and surveys.</p> <p>Operational and management structure is covered by the operational management plan – please refer to section 9 of the validation report.</p> <p>The revised sampling plan complies with the Standard on sampling and surveys. CAR 03 was closed. Please refer to appendix B for details.</p>	<p>CAR 05</p> <p>CAR 03</p>	OK

Conclusion

Based on the validation activities performed, ERM CVS concludes that:

- (a) The monitoring plan for a generic CPA is fully in compliance with the requirements of the methodology;
- (b) The monitoring arrangements described in the monitoring plan are feasible within the design of a generic CPA;
- (c) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the generic CPA can be reported ex post and verified.

The assessment conducted by ERM CVS is by means of review of the documented procedures, interviews with relevant personnel, and a visit to the site of the first real case CPA.

11 Validation Findings – Sustainable Development, Local Stakeholder Consultation and Environmental Impact

11.1 Sustainable Development

As per VVS section 7.8, ERM CVS evaluated whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM PoA to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.1.1	Does the LOA from the Host Party confirm that the PoA contributes to the sustainable development of that country?	The LoAs from Rwanda and Ethiopia confirm the contribution of the PoA to the sustainable development of the host countries.	OK	OK

11.2 Local Stakeholder Consultation

As per VVS sections 7.14 and 8.4.13, ERM CVS evaluated whether local stakeholders had been invited to comment on the proposed PoA prior to the publication of the PoA-DD on the UNFCCC website as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.2.1	Have comments from local stakeholders that can reasonably be considered relevant been invited prior to the publication of the PoA-DD on the UNFCCC website?	Yes, comments from stakeholders were invited at the PoA level for each host party included in the PoA (Rwanda and Ethiopia). This was undertaken through a number of avenues including newspaper adverts, posters and invitations.	OK	OK
	Is the summary of comments provided in the PoA-DD complete?	ERM CVS has reviewed the local stakeholder consultation reports from Ethiopia and Rwanda /14/ as well as the invitation tracking tool (to record invitations and attendance) developed by the CME and photos from the meetings /15/. ERM CVS confirms that the summary of comments provided in the PoA-DD is complete.	OK	OK
	Has due account been taken of any stakeholder comments received and is this adequately and clearly described in the PoA-DD?	<p>The stakeholder comments raised during the consultation process were responded to during the meetings and the PoA-DD describes how these have been taken into account. Based on the review of the results of the consultation, ERM CVS confirms that the comments have been adequately taken into account. The main negative comments raised were:</p> <p>That the stoves will not be initially manufactured in-country. This was discussed during the validation site visit, and it was clear that the type of stoves to be distributed in the first two CPAs is manufactured in China and is not manufactured in-Country. However other locally manufactured stove types may be available in the future.</p> <p>That the price of the stoves may be too high for some consumers: the CME responded that carbon finance will help to subsidise the stoves and reduce the price.</p> <p>That the stoves are not suitable for cooking all foodstuffs (notably injera in Ethiopia): the CME responded that other stove types may be considered in the future.</p> <p>The environmental impacts of using clay in stove manufacturing: the CME responded that the project will also receive government approval and</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>environmental impact analysis approval or exemption on all products it supports</p> <p>Concern about the level of employment; the CME responded that the project will train and support sales staff. During the site visit, the CME explained that distributor partners will be used that will create local employment, and that 'last mile entrepreneurs' (community members who sell the stoves to local households) may also be used, and that such people will be given sales training and support.</p> <p>ERM CVS therefore confirmed that due account had been taken of the comments received.</p>		

Conclusion

Based on the document reviews undertaken and interviews with local stakeholders, ERM CVS concludes that relevant local stakeholders were invited to comment on the project prior to publication of the PDD on the UNFCCC website, and that the consultation undertaken is adequate in the context of the project. Where negative comments were raised, it was validated that these were taken into account in the project development and that this was properly described in the PDD.

ERM CVS has therefore validated that the local stakeholder consultation is adequate.

11.3 Environmental Impacts

Environmental impacts are assessed on a CPA level, and each CPA has to comply specifically with the EIA certificate or EIA exemption certificate issued in that country, as required by the eligibility criteria. This is appropriately described in the PoA-DD.

11.4 Public funding

ERM CVS also evaluated whether the information relating to public funding in the PoA-DD Appendix 2 has been correctly presented.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
12.4.1	If the PoA involves public funding from an Annex 1 country, have the annex 1 parties involved provided an affirmation that such funding does not result in a diversion of official development assistance?	The PoA does not involve any public funding from annex 1 Parties. This was confirmed by interviews with the CME during the site visit, and by review of a Declaration of Non-Use of Official Development Assistance signed by Neil Bellefeuille, CEO of The Paradigm Project /16/.	OK	OK
	Is the information provided on public funding (PoA-DD, Appendix 2) provided in compliance with the actual situation or planning?	The PoA does not involve any public funding from annex 1 Parties. ERM CVS has reviewed a declaration signed by the CME /16/.	OK	OK

Conclusion

The PoA does not involve any public funding from Annex 1 Parties.

Appendix A: Documents and Interviewees

A.1 DOCUMENT LIST

Reference number	Date	Document Title and version number (if applicable)
01	18 March 2012 26 June 2013	PoA Design Document for the proposed PoA Version 01 (for GSC) Version 08 (final).
02	04 December 2012 06 November 2012	Host Country Letter of approval for the proposed PoA issued by Rwanda Host Country Letter of approval for the proposed PoA issued by Ethiopia
03	13 March 2013	Modalities of Communication for the proposed PoA.
04	22 April 2009	Articles of Organisation for Paradigm
05	21 January 2013	Letter from Mr Neil Bellefeuille confirming the employment status of Ms Johanna Matocha at The Paradigm Project
06	April 2012	Accenture/Global Alliance for Clean Cookstoves: Rwanda Market Assessment (http://www.cleancookstoves.org/resources_files/rwanda-market-assessment-mapping.pdf)
07	June 2009	European Union Energy Initiative: BIOMASS ENERGY STRATEGY (BEST), RWANDA. Volume 3 - Rural Supply & Demand (http://www.cleancookstoves.org/resources_files/best-volume-3rural-supply.pdf)
08	1994	Government of Ethiopia: Energy Policy (http://www.mowr.gov.et/EEA/LEGAL/The%20national%20Energy%20Policy.pdf)
09	2008	Bekele Bayissa: A review of the Ethiopian energy policy and biofuels strategy (Part of Taye Assefa (ed.) 'Digest of Ethiopia's National Policies, Strategies and Programmes' Published by the Forum for Social Studies, Addis Ababa, 2008)
10	Accessed February 2013	Website: National Clean Cook Stove Programme Ethiopia (https://sites.google.com/site/ethiopiaccs/)
11	08 January 2011	MEGEN Power Plc/GIZ: Final report: Household energy baseline survey in SNNPR
12	2011	FAO: Spatial analysis of woodfuel production and consumption in Rwanda applying the WISDOM methodology (http://www.fao.org/docrep/013/ma223e/ma223e00.pdf)
13	12 March 2013	The Paradigm Project: Paradigm Sub Saharan Africa Cook Stove Programme: Coordinating and Management Entity Procedures (version 0.2)
14	Undated (LSC meetings took place on 18 May 2012 in Kigali and 29 May 2012 in Addis Ababa)	Reports of the Local Stakeholder Consultation meetings for Rwanda and Ethiopia
15	Undated	Stakeholder Consultation Invitation tracking sheet: Rwanda Photographs of the stakeholder consultation meeting in Kigali, 18 May 2012

Reference number	Date	Document Title and version number (if applicable)
		Stakeholder Consultation Invitation tracking sheet: Ethiopia Photographs of the stakeholder consultation meeting in Addis Ababa, 29 May 2012
16	03 August 2012	Declaration of Non-Use of Official Development Assistance by Project Owner, signed by Mr Neil Bellefeuille, The Paradigm Project
17	30 January 2013	The Paradigm Project: TPP Usage and Durability report
18	Undated	Ezylife: Brochure for the Ezystove
19	Undated	Warranty statement from Envirofit, concerning the G3300 and M5000 wood burning stoves
20	Undated	Ezylife: Training presentations related to the Ezystove
21	2008	Rwanda Environmental Management Authority (REMA): State Of The Environment And Outlook Report Chapter 8: Energy Resources. http://www.rema.gov.rw/soe/chap8.pdf
22	2007	Huba, E and Paul, E (2007): National Domestic Biogas Programme Rwanda, Baseline Study Report. Report carried out by SNV and GTZ for the Ministry of Infrastructure of Rwanda. http://www.snvworld.org/sites/www.snvworld.org/files/publications/baseline_study_rwanda_national_domestic_biogas_programme_2007.pdf
23	2009	BEST VOLUME 2 – 2009. "SECTION 3.4 ENERGY PRICES AND COSTS OF COOKING." BIOMASS ENERGY STRATEGY (BEST), RWANDA VOLUME 2. http://www.cleancookstoves.org/resources_files/best-volume-2background.pdf
24	2009	E Mazimpaka, University of Cape Town: 'Rwanda Facing A Wood Fuel Dilemma' (2009) http://timetable.cput.ac.za/other_web_files/cue/DUE/2010/PDF/Paper%20-%20E%20Mazimpaka.pdf
25	2009	MUNYEHIRWE CASE PROJECT BASELINE STUDY REPORT, 2009. http://www.cleancookstoves.org/resources_files/baseline-study.pdf
26	2005	FAO 2005 RWANDA. "Section 11. 5 Données à insérer dans le tableau T11." COUNTRY REPORT. ftp://ftp.fao.org/docrep/fao/010/ai942F/ai942F00.pdf
27	2010	FAO 2010: Global Forest Resources Assessment 2010: Country Report Ethiopia. http://www.fao.org/docrep/013/al501E/al501e.pdf
28	Data for 1980-1996	FAO: table of fuel wood consumption in different African Countries http://www.fao.org/docrep/x2740E/x2740e31.pdf
29	2012	Asfaw Araya 2012. Consilience: The Journal Of Sustainable Development. Sustainable Household Energy for Addis Ababa, Ethiopia. http://www.consiliencejournal.org/index.php/consilience/article/viewFile/252/110
30	2011	GACC 2011: Global Alliance For Clean Cook Stoves: Preliminary Findings And Recommendations On Ethiopian Cook Stoves Market. http://www.cleancookstoves.org/resources_files/ethiopia-market-assessment.pdf
31	2011	Shanko & Lakew 2011. GIZ: ECO – BIO-ENERGY DEPARTMENT: FINAL REPORT: HOUSEHOLD ENERGY BASELINE SURVEY IN SNNPR. https://energypedia.info/images/3/3b/Household_Bio-Energy_Baseline_Survey_in_SNNP_Region-Ethiopia.pdf
32	March 2013	The Paradigm project and Viability Africa LLC: Paradigm Sub Saharan Africa Cookstove Programme, Baseline Report: The Republic of Rwanda
33	2009	FAO : Programme de gestion transfrontalière des agroécosystèmes du bassin de la Kagera

Reference number	Date	Document Title and version number (if applicable)
		(PGTA Kagera)
34	March 2013	The Paradigm Project and Viability Africa LLC: Paradigm Sub-Saharan Africa Cook Stove Programme – Baseline Report: The Federal Democratic Republic of Ethiopia
35	2000	Gamtesa Samuel Faye (2000): Household's Consumption Pattern and Demand for Energy in Urban Ethiopia. http://homepages.wmich.edu/~asefa/Conference%20and%20Seminar/Papers/2003%20papers/Gamtesa_%20Samuel.pdf
36	May 2013	Max Impact and the Paradigm Project: Baseline survey for Rwanda (Baseline market assessment of improved cookstove penetration as well as ability and willingness to pay among rural consumers)
37	2005	Ethiopia Demographic and Health Survey 2005 by the Central Statistical Agency Addis Ababa, Ethiopia

A.2 INTERVIEWS

Reference	Name	Title & Organisation	Main topics discussed
IV1	Johanna Matocha	Director, Carbon & Impact Systems, The Paradigm Project	PoA setup, CME role and PoA management, monitoring and organisation, eligibility criteria, ex-ante values and supporting evidence
IV2	Nathan Gachugi	Project Manager, Viability Africa LLC (CDM consultants)	PoA-DD and Generic CPA-DD, CPA-DDs, monitoring setup, emission reduction calculations, eligibility criteria
IV3	Phillip Mulari	Associate, Bridge2Rwanda	Rwanda CPA design and eligibility
IV4	Sosthene Ndayisaba	Bridge2Rwanda and Max Impact Consulting	Monitoring survey design
IV5	Saron Getaneh Ayele	Project Manager, Paradigm (Ethiopia)	Ethiopia CPA design and eligibility
IV6	Alazar	Ranez Busines Plc (potential CPA implementing partner and stove distributor in Ethiopia)	Ethiopia CPA design and eligibility
IV7	Mohammed Abdul Wahab	Local stakeholder, Ethiopia (PANDA – a local organisation involved in another stove project; participated in the local stakeholder consultation)	Stakeholder consultation process and satisfaction
IV8	Shilemat Solomon	Local stakeholder, Ethiopia (Local resident living near Addis Ababa; participated in the local stakeholder consultation)	Stakeholder consultation process and satisfaction
IV9	Eden Gelan	Local stakeholder, Ethiopia (Beza Community Development Association; participated in the local stakeholder consultation)	
IV10	Alice Uwase	Local Stakeholder, Rwanda (local resident living in a peri-urban area of Kigali; participated in the local stakeholder consultation)	Stakeholder consultation process and satisfaction
IV11	Lea Unibambe	Local Stakeholder, Rwanda (local resident living in the Rwinkwavu area of Rwanda; participated in the local stakeholder consultation)	Stakeholder consultation process and satisfaction
IV12	Paulin Buregga	Local Stakeholder, Rwanda (Green Shops, one of the potential distributors; participated in the local	Stakeholder consultation process and satisfaction

Reference	Name	Title & Organisation	Main topics discussed
		stakeholder consultation)	
IV13	Jean-Marie Vianney Kayouga	Local Stakeholder, Rwanda (Enedom – a local stove manufacturer; participated in the local stakeholder consultation)	Stakeholder consultation process and satisfaction

Appendix B: Remediation Form

Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs)

Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CAR 01: The PP name stated in the LoAs ('The Paradigm Project') is different to the name of the CME/PP stated in the PoA-DDs and CPA-DDs and MOC ('The Paradigm Project L3C'). The name should be consistent. Please correct.	4.1.2	All documents have been updated to read "The Paradigm Project" rather than "The Paradigm Project L3C". All mention of company name is consistent throughout documentation and government approval letters: <ul style="list-style-type: none"> MOC now reads The Paradigm Project PoA DD now reads The Paradigm Project All CPA DDs read The Paradigm Project 	The documents have been corrected. CAR closed.
CAR 02: The MoC has not been correctly completed. Section 3 has been signed twice by the same PP. Please correct.	4.4.1	The MOC has been updated to remove the second signature from Section 3. All signature dates have been updated to reflect most recent signing	The MOC has been corrected. CAR closed.
CAR 03: <ol style="list-style-type: none"> The parameters to be obtained by means of sampling are not consistent between section B.3 of Part I, and sections B.7.1 and B.7.2 of Part II The sampling plan does not clearly distinguish between ex-ante sampling and surveys and sampling for ex-post monitoring Confidence/precision requirements for different parameters are not consistent and not clear: 90/10, 	9.2	<ol style="list-style-type: none"> Section B.3 of the PoA DD has been amended pursuant to the Corrective Action Request. All mention of ex-ante sampling has been removed from the PoA DD. All sampling efforts shall only be required in the monitoring stage under the common sampling plan. All mention of ex-ante sampling has been removed from the PoA DD. All sampling efforts shall only be required in the monitoring stage under the common sampling plan. Section B.3 of the PoA DD has been revised pursuant to the CAR. Sample size will be calculated separately for each country. The sampling plan has been modified to make this clear and additional justification is provided with regards to the sampling approach. Section B. 3 of the PoA DD has been amended pursuant to the corrective action request. Section B. 3 of the PoA DD has been amended pursuant to the corrective action request. 	<ol style="list-style-type: none"> Section B.3 of the PoA-DD and section B.7.1 and B.7.2 of the generic CPA-DD (part II of the PoA-DD) are now consistent. The following parameters will be monitored by sampling: <ul style="list-style-type: none"> η_y Fraction of ICS still in operation in year y $\eta_{new,y}$ Efficiency of ICS in year y SM_y Fraction of meals in a week cooked on the project stove in year y The sampling plan has been revised together with revisions to ex-ante parameters: sampling will only be used for ex-post monitoring. This is in line with the way baseline parameters are identified according to the revised PoA-DD. Competence/precision requirements have been corrected to consistently refer to 95/10, as sampling will be undertaken across CPAs. This is in compliance with

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<p>95/10</p> <p>d) It is not clear if single sampling plan across the whole PoA will be used, or sampling across CPAs within each country. Clear justification needs to be provided in line with the required justification elements</p> <p>e) The sampling approach is not clear and not consistent: different parts of the PoA-DD refer to random sampling and systematic sampling</p> <p>f) Estimated/expected parameter values are not provided, and different sample sizes are suggested in sections B.3 and B.7.2 without providing justification how they were derived, therefore ERM CVS is not able to reproduce sample size calculations.</p> <p>g) The version of the standard referred to in the PoA-DD is not the latest valid version</p> <p>Please correct.</p>		<p>g) Section B.3 of the PoA DD has been revised to reflect Annex 4 of EB 69 version 04.0 rather than Version 02.0 of EB 65 annex 2 previously used.</p>	<p>the Standard for sampling and surveys for CDM project activities and programme of activities, version 03</p> <p>d) The revised sampling plan is clear that sampling will be done for each country and across CPAs within any country. I.e. sampling will be common across CPAs of each country. The justification for using a common sampling plan across CPAs of a country has been included. Based on review of baseline studies for Ethiopia and Rwanda /34-36/ and ERM CVS's sector knowledge, end users within a host country can be considered homogeneous with respect to the monitoring parameters as long as differences in stove models/types are taken into account by using stratified sampling approach (refer to the bullet point below for sampling approach). Fraction of ICS still in operation, efficiency of stoves, and fraction of meals cooked on the project stove are not expected to have regional differences within the same country, and their variability would depend more on the stove size, model/type and user acceptability, which in turn is affected by stove design features including performance, and stove quality</p> <p>e) The revised sampling plan clarifies that the sampling method for all three monitored parameters is stratified random sampling, where the stoves are split into strata according to stove type in terms of efficiency and usage features. The approach is suitable – the main variations of monitored parameters within a country are expected to be caused by stove design features, quality and efficiency. As target group does not vary, it is sufficient if variation in stove type is taken into account by using stratified sampling. The approach is in line with the Guidelines for sampling and surveys for CDM project</p>

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			<p>activities and programme of activities, version 02</p> <p>f) Examples of sample size calculations are provided with estimated parameter values per strata and their variance. The Paradigm Project can draw on its experience of implementing Gold Standard cookstove projects to estimate parameter values for this PoA. The sample size will have to be calculated in advance of each monitoring survey according to the CPAs included in the PoA at a time and their split into stove types within each country. Sample size is calculated separately for each host country. The formulae and approach for calculating sample size is in accordance with the Guidelines for sampling and surveys for CDM project activities and programme of activities, version 02. The DOE was able to reproduce sample size calculations using the assumed expected parameter values.</p> <p>g) Section B.3 of the PoA DD has been revised to reflect Annex 4 of EB 69 (version 03 of the Standard for sampling and surveys for CDM project activities and programme of activities), which is the latest version of the sampling standard.</p> <p>CAR closed</p>
<p>CAR 04:</p> <p>(a) Parameter 'Check of appliances or a representative sample thereof to determine if they are still operating or are replaced by an equivalent in service appliance' is not included in the monitoring plan.</p>	10.1	<p>a) Section B.7.2 includes parameter S_y – the total number of ICSs deployed in the CPA and parameter $n_{y,i}$ which quantifies how many of the distributed ICSs are still operational. This should suffice for the methodological requirements for monitoring.</p> <p>b) All CPAs under this PoA shall use Option 2 of paragraph 12. Accordingly the monitoring guidelines within the methodology do not require the PP to</p>	<p>a) In addition to keeping sales records and recording the total number of stoves sold, the monitoring plan of a typical CPA includes parameter n_y, the Fraction of distributed ICS operational in year y. A survey will be undertaken annually to determine whether or not ICS are still operational. The survey will involve an interview with the user and a visual inspection of the ICS. The survey will follow the sampling requirements as per AMS-II.G version 05 and the Standard for sampling and surveys for CDM project activities and programme of activities", EB</p>

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<p>(b) Parameter $B_{y,new}$ is not included in the monitoring plan.</p> <p>(c) Parameter $HG_{p,y}$ is not included in the monitoring plan.</p> <p>(d) Parameter L (leakage) is not included in the monitoring plan, although the description of leakage assessment in section B.6.1 includes it.</p> <p>(e) The monitoring plan lacks provisions to ensure that:</p> <ul style="list-style-type: none"> • Either the replaced low efficiency appliances are disposed of and not used within the boundary or within the region; or • If baseline stoves continue to be used, monitoring shall ensure that the fuel-wood consumption of those stoves is excluded from Bold 		<p>monitor parameter $B_{y,new}$.</p> <p>c) Parameter $HG_{p,y}$ has been removed from the PoA DD. All CPAs shall calculate baseline emissions using the guidelines of paragraph 13 (a) of the baseline and monitoring methodology AMS-II.G version 5.</p> <p>d) Parameter L has been removed from the PoA DD and a default NTG value has been used instead</p> <p>e) A monitoring parameter has been set in place to calculate the number of meals which have been prepared using the ICSs which are part of the project activity vis-à-vis those which have been prepared using baseline stoves. This parameter will automatically discount any non-renewable biomass consumed using the baseline stoves. This value will be used to discount the quantity of non-renewable biomass used by baseline technologies so as to meet the monitoring requirements stipulated in paragraph 26 of the baseline and monitoring methodology AMS-II.G.</p>	<p>69, Annex 4.</p> <p>b) The generic CPA-DD specifies that each CPA shall use Option 2 Equation 3 of the baseline and monitoring methodology AMS-II.G to calculate the parameter $B_{y,savings}$. Therefore parameter $B_{y,new}$ does not need to be included in the monitoring plan.</p> <p>c) The generic CPA-DD states that all CPAs shall calculate baseline emissions following paragraph 13 (a) of the methodology. Therefore parameter $HG_{p,y}$ does not need to be included in the monitoring plan.</p> <p>d) The revised generic CPA-DD states that The parameter B_{old} is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required in all CPAs included in the PoA. No leakage surveys shall therefore be conducted.</p> <p>e) Monitoring shall ensure that the fuel-wood consumption of second stoves is excluded from Bold by determining the parameter SM_y. SM_y represents the fraction of times meals are cooked with the project stove compared to the total number of times meals are prepared on the project stove and the baseline stove combined, and will be determined through a sampling survey.</p> <p>CAR closed</p>
<p>CAR 05:</p> <p>The monitoring plan is not complete:</p> <p>(a) The monitoring plan describes what</p>		<ul style="list-style-type: none"> • Section B.7.2 of the PoA DD has been amended pursuant to this CAR. The Detailed Customer Database is a representative sample of the entire population. Checks will be done to ensure its representativeness, through looking at the geographic 	<p>The monitoring plan has been revised:</p> <p>a) The procedures for collecting monitoring data as well as QA/QC measures were included in the monitoring parameter tables (section B.7.1 of</p>

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<p>kind of information will be collected in two databases but it does not clearly describe systems and procedures for collecting different types of data, as well as associated QA/QC procedures.</p> <p>(b) The plan lacks description on how sales/distribution data, customer details, and dates when stoves reach households will be recorded.</p> <p>(c) It also does not include provisions for conducting water boiling tests and (if applicable) kitchen performance tests</p>		<p>spread and technology type of all sales. By ensuring this representativeness any sample taken will be a fair reflection of the whole population.</p> <ul style="list-style-type: none"> Section B.7.2 of the PoA DD has been amended pursuant to this CAR. Section B.7.2 of the PoA DD has been amended pursuant to this CAR. 	<p>part II of the PoA-DD). Data to be collected in the databases has been clarified. It will consist of a CPA database that covers CPA-level information, and a detailed customer database, which includes customer/cookstove level information.</p> <p>b) Description on how sales data will be collected and how average lag days between sale to a distributor and sale to an end user will be estimated, is included in the section B.7.1 of part II of the PoA-DD.</p> <p>c) Section B.7.2 of the PoA-DD now clearly demonstrates that due to methodological choices kitchen performance tests will not be conducted, and explains that cookstove efficiency will be checked based on water boiling tests. The tests will follow the Partnership's for Clean Indoor Air Water Boiling Test protocol, which is an internationally accepted test protocol/standard.</p> <p>CAR Closed</p>

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CL 01: The policy/measure or stated goal in the PoA-DD does not mention the measures that will be taken by the PoA. Please clarify the policy/measure/stated goal.	5.4.2	The PoA DD has been amended pursuant to the clarification request.	<p>The policy/measure or stated goal of the PoA has been stated more clearly in the PoA-DD: "Improved cook stoves will be distributed under this PoA with the primary objective of abating GHG emissions and reducing consumption of non-renewable woody biomass and reducing indoor air pollution".</p> <p>CL closed</p>
CL 02: The generic CPA description (Section A.1 of the generic CPA-DD) does not specifically address the main technologies and equipment to be involved, lifetime, capacities and efficiencies, emissions sources, and energy flows and balances, or technology transfer. Please provide the missing information.	5.4.4	The PoA DD has been amended pursuant to the clarification request. A tentative list of improved cook stoves which the CME may include in the PoA have been included in Section A.1 of Part II of the PoA DD and supporting documents have been submitted to the DOE to support claims in the PoA DD regarding their lifetimes.	<p>The generic CPA description has been updated to include:</p> <ul style="list-style-type: none"> Description of the main technologies and equipment involved: Improved cook stoves distributed under CPAs included in this PoA shall be defined as devices with a thermal efficiency equal to or greater than 20% as determined from Water Boiling Tests. An indicative list of stoves types is also provided. All stoves will use wood fuel. The lifetime of different stove types is now stated in the revised PoA-DD. ERM CVS has reviewed supporting evidence including a report by the CME itself looking at stove durability /17/, an equipment brochure for the Ezystove /18/, and a warranty from stove manufacturer Envirofit /19/, which provides a 5 year warranty on its stoves. The supporting documents suggest that the stated lifetimes are conservative. Capacities and efficiencies: The description states that all stoves must have a thermal efficiency greater than 20%. Regarding capacity of each CPA, the description states that each SSC CPA will distribute a

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			<p>number of ICSs which results in energy savings not greater than 180 GWh thermal per year in fuel input. This will ensure each CPA is within the threshold for the use of small scale methodologies.</p> <ul style="list-style-type: none"> Emissions sources: The description describes the emissions sources in the baseline and project scenario, and describes how emissions reductions will be achieved. Energy flows and balances: the description includes a diagram describing the energy and emissions flows associated with a typical CPA. Technology transfer: CPA operators are at liberty to manufacture or source improved cook stoves within the CPA boundary or from countries outside the PoA boundary. In so doing this PoA doesn't have a compulsory requirement for technology transfer. <p>CL closed</p>
<p>CL 03:</p> <p>(a) The eligibility criteria do not clearly prescribe the conditions related to the geographical boundary</p> <p>(b) The eligibility criterion related to double counting should be clarified, given that the serial numbering system as described is not compatible with the EzyStove</p>	<p>6.1,</p> <p>7.2.1,</p> <p>7.3.1</p>	<p>a) The eligibility criterion has been amended to clarify that CPA boundary must be within a single host country included in the PoA boundary</p> <p>b) The eligibility criterion has been modified to specify unique markings on cookstoves to identify them as part of a CPA. Criteria for marking has been intentionally left inclusive to allow for locally produced products with rudimentary marking systems</p> <p>c) Eligibility criterion 3 specifies the technological requirements for ICSs to be distributed under this</p>	<p>a) The eligibility criteria now clearly state that any CPA must be confined to the national boundaries of one of the host countries included in the PoA. Records of the location of the business and partnership agreements can be checked to verify this.</p> <p>b) The eligibility criterion now states that CPA operators shall ensure that ICSs are uniquely marked (such as a serial number, batch number, or branding on the ICS which identifies it as part of the CPA) and shall provide written attestation that they are not included in any other CDM or Voluntary GHG offset schemes outside of this</p>

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<p>design.</p> <p>(c) The eligibility criteria do not clearly state the required technical specifications for stoves to be suitable for the PoA. It also does not stipulate that the CPA should demonstrate that each unit is less than 5% of the small scale CDM thresholds.</p> <p>(d) The eligibility criteria do not address the CDM requirement that the start date of the CPA shall not be before the starting date of the PoA. The start date of the PoA is also not correctly defined in the PoA-DD.</p> <p>(e) The eligibility criteria related to methodology applicability conditions do not specifically address the wording on AMS-II.G paragraph 1. Furthermore the criteria do not address the PoA-specific requirements of AMS-II.G (formerly paragraphs 22 and 23, now paragraphs 29-30).</p> <p>(f) The wording of the eligibility criterion related to the demonstration of non-renewable biomass since 1989 is not clear whether published literature is the only source that could be used, or</p>		<p>PoA. Small scale thresholds have been addressed here and in eligibility criterion 12 regarding additionality.</p> <p>d) Start date of PoA has been specified to be the beginning of GSC. Evidential criterion for start date of CPA construction has been added.</p> <p>e) The eligibility criterion has been amended pursuant to the clarification request. Paragraphs 22 and 23 have been included in Part II of the PoA DD.</p> <p>f) Eligibility criterion 5 has been amended pursuant to the CL.</p> <p>g) Eligibility criterion 5 has been amended pursuant to the CL.</p> <p>h) Eligibility criterion 5 has been amended pursuant to the CL.</p> <p>i) Eligibility criterion 5 has been amended pursuant to the CL.</p>	<p>PoA. The criterion is sufficiently broad to include the Ezystove, but also sufficiently objective and verifiable.</p> <p>c) The eligibility criteria related to technical specifications have been revised. All technologies must be improved cookstoves, use wood as fuel, and have a thermal efficiency greater than 20%, which is in line with the methodology definition of improved cook stoves. This can be checked using independent third party lab testing certificates (using testing protocol WBT4.2.1 or a more recent protocol where available) and documents showing the product description and specifications. This is considered sufficiently verifiable and objective. The requirement that each unit is less than 5% of the small scale CDM thresholds is included in the eligibility criterion related to additionality.</p> <p>d) The revised criterion states that the start date for each CPA is defined as the earliest date at which either the implementation or construction or real action of a programme activity begins, which is in line with the CDM glossary of terms. The criteria requires that the CPA start date cannot be prior to the 30th of October 2012, which is the date when the PoA DD was first published for Global Stakeholder Consultation – which is the correctly defined start date of the PoA in accordance with the CDM glossary of terms. The criterion is sufficiently objective and verifiable.</p> <p>e) The eligibility criteria address the eligibility requirements of AMS-II.G v05 as follows:</p> <p>AMS-II.G requirement: 'This category comprises efficiency improvements in thermal applications of non-renewable biomass. Examples of applicable technologies and</p>

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<p>whether survey methods, official reports or statistics could also be used.</p> <p>(g) The eligibility criteria do not state what the additionality requirements are for this PoA.</p> <p>(h) The eligibility criteria do not address the target group and distribution mechanisms.</p> <p>(i) The eligibility criterion related to ODA does not include the requirement that a signed declaration be provided from annex 1 Parties, if any public funding from an annex 1 Party is used for a CPA.</p>			<p>measures include the introduction of high efficiency biomass fired cook stoves or ovens or dryers and/or energy efficiency improvements in existing biomass fired cook stoves or ovens or dryers': the eligibility criteria include the specifications of technology/measure, requiring that the CPA must distribute improved wood-burning cookstoves with a thermal efficiency above 20%.</p> <p>AMS-II.G requirement: 'Project participants shall be able to show that 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 eligibility criteria require that the CPA operator can prove that non-renewable biomass has been consumed in the project boundary since 31st December 1989, and that the CPA operator (in this PoA) distributes improved cook stoves to reduce non-renewable biomass consumption.</p> <p>AMS-II.G requirement: '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'. This is adequately addressed by eligibility criterion (e).</p> <p>AMS-II.G requirements related to PoAs (section 5.3 of the methodology):</p> <p>Leakage (paragraph 29): the CME applies a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required. This is accounted for in section B.4 of the PoA-DD.</p> <p>fNRB (paragraph 30): the CME applies default</p>

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			<p>national values approved by the CDM Executive Board. This choice of which option to use has been made ex ante. This is discussed in section B.4 of the generic CPA-DD (part II of the PoA-DD document).</p> <p>'Monitoring approaches for $B_{y,savings}$ (Option 1, 2 or 3 in paragraph 12), and values for parameters f_{NRB} (when Option (a) in paragraph 30 is chosen) and the quantity of woody biomass B_{old}, may be determined either at the CPA level before the inclusion of CPA or at the PoA level before the registration of the PoA-DD' (paragraph 31): the PoA-DD (please see section B.4 of the generic CPA-DD (part II of the PoA-DD document)) states that the CPA operator shall use Option 2 (Equation 3) of the baseline and monitoring methodology AMS-II.G to calculate the parameter $B_{y,savings}$. f_{NRB} is set ex-ante at the PoA level based on default values from the CDM EB (please see section B.4 of the generic CPA-DD (part II of the PoA-DD document)). B_{old} is determined using option (a) of paragraph 13 of the methodology, i.e. it is calculated as the product of the number of devices multiplied by the estimated average annual consumption of woody biomass per device (tonnes/year) (please see section B.4 of the generic CPA-DD (part II of the PoA-DD document)). B_{old} has been set ex-ante at the PoA level based on historical data (please see section 7.5 of the validation report for details of how this was validated).</p> <p>The criteria sufficiently address the requirements of the methodology (paragraphs 2, 3 and 4) and the PoA specific</p>

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			<p>requirements of the methodology (paragraphs 29-31), and are sufficiently objective and verifiable.</p> <p>f) The revised eligibility criterion states that the CPA DD shall demonstrate that the CPA will be implemented in a host party in which non-renewable biomass has been consumed since December 1989. This is determined at the PoA level and CPA shall demonstrate consistency with PoA parameters. ERM CVS has therefore validated at the PoA level whether non-renewable biomass has been used in Ethiopia and Rwanda since 31 December 1989 – please see section 7.2 of the PoA validation report.</p> <p>g) Eligibility criterion (f) states that All CPAs within the PoA are exempt from additionality provided that they meet the following criteria:</p> <ul style="list-style-type: none"> • Each ICS is an isolated unit • End users of the ICSs are households • The size of each ICS (in thermal energy savings) is no greater than 5% of the 180 GWh small scale limit specified for this type II project activity under the small scale baseline and monitoring methodology AMS-II.G. <p>The criterion therefore clearly states the additionality requirements, and is in line with the “Guidelines on the demonstration of additionality of small-scale project activities”.</p> <p>h) Eligibility criterion (h) requires that the intended target groups of the improved cook stoves distributed under this</p>

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			<p>PoA are households which use non-renewable biomass in the form of wood for thermal energy required to cook meals. This can be checked against the proposed distribution methods for each CPA to ensure that the target group is the same. The criterion is sufficiently objective and verifiable.</p> <p>i) The revised eligibility criterion (I) states that CPA operators shall be required to provide an affirmation that funding from Annex 1 parties, if any, does not result in a diversion of official development assistance, and that this shall be demonstrated as follows: Individual CPA operators shall sign ODA declarations for CPAs implemented by them to prove that no funding has been sought from Annex 1 parties; and where funding is sought from Annex 1 parties the ODA declaration shall be supported by details regarding Annex 1 funding that affirms that the funding doesn't divert ODA. The criterion is sufficiently objective and verifiable.</p> <p>CL closed</p>
<p>CL 04:</p> <p>(a) The CME has chosen to set parameter f_{NRB} ex-ante at the PoA level, however the value for Ethiopia is not given. Furthermore, default values provided by the CDM EB are used however the PoA-DD includes procedures for the calculation of the NRB fraction, which are not applicable in this case since the default values are used.</p> <p>(b) the generic CPA-DD is unclear</p>	7.5	<p>a) The PoA DD has been amended pursuant to the CL.</p> <p>b) Section B.6.2 of the PoA DD has been revised with ex-ante values for Rwanda and Ethiopia. These values shall be validated at the PoA Level as weighted averages of the thermal efficiency of baseline stoves in either country .</p> <p>c) A baseline report has been provided to substantiate the value used. The same have been directed for review at the CPA level.</p>	<p>a) F_{NRB} has been set at the PoA level and default values provided by the CDM EB have been used for both Rwanda and Ethiopia. Further procedures for the determination of F_{NRB} have therefore been removed from the POA-DD.</p> <p>b) Section B.6.2 of the PoA DD provides weighted average values based on the stove types adopted by baseline users (since baseline users in the region use a mixture of improved and unimproved stoves). Please see section 7.5 of this report for further details of how the values for η_{old} were validated.</p>

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<p>whether all CPAs will use the default values for n_{old}</p> <p>(c) The value for B_{old} (wood) should be further substantiated. Furthermore a value for Ethiopia was not provided.</p> <p>(d) Please explain in the generic CPA-DD how and when parameter B_{old} (charcoal) will be used, given that it is not in the methodology. Please provide the reference for the wood:charcoal conversion factor for Rwanda. Furthermore please provide a value for B_{old} (charcoal) for Ethiopia, with evidence.</p> <p>(e) It is not clear whether all CPAs will be required to use option 2 to determine $B_{y, savings}$ (wood) and $B_{y, savings}$ (charcoal). Please clarify.</p> <p>(f) Please explain in the generic CPA-DD how and when parameter $B_{y, savings}$ (charcoal) will be used, given that it is not in the methodology.</p> <p>(g) It is not clear whether all CPAs will apply the net to gross adjustment factor of 0.95. Please clarify.</p> <p>(h) Where option 3 is used to determine $B_{y, savings}$, S_{Cold} and S_{Cnew} are also ex-ante parameters. However these are not listed in the DD. Please clarify whether</p>		<p>d) All mention of charcoal fuel consumption has been removed from the PoA DD as the PoA is only applicable to households who used wood fuel consumption in the baseline scenario.</p> <p>e) All CPAs will use Option (a) of Paragraph 13 to calculate emissions reductions. The PoA has been amended to reflect this approach consistently throughout the document. As indicated in Step 1 of Section B.6.1 of the PoA DD all CPAs shall be required to use Option 2 of paragraph 12 for calculation of the parameter $B_{y, savings}$.</p> <p>f) All mention of charcoal fuel consumption has been removed from the PoA DD as the PoA is only applicable to households who used wood fuel consumption in the baseline scenario.</p> <p>g) All CPAs shall use the default 0.95 Net to Gross Adjustment factor to account for leakage. The PoA DD has been amended to reflect this change.</p> <p>h) All CPAs shall use Option 2 to calculate emissions reductions. The PoA DD has been amended to reflect this change.</p>	<p>c) The CME has provided further substantiation of the value of B_{old} for Ethiopia and Rwanda. Please see section 7.5 of the validation report for further details of how these values were validated.</p> <p>d) Reference to charcoal has been deleted, since the PoA will not include charcoal stoves and will target only households using wood.</p> <p>e) The PoA-DD now indicates that all CPAs will be required to use Option 2 of paragraph 12 to calculate $B_{y, savings}$, and option (a) of paragraph 13 to determine B_{old}.</p> <p>f) Charcoal is no longer mentioned in the DD.</p> <p>g) All CPAs shall use the default 0.95 Net to Gross Adjustment factor to account for leakage. This is now clearly stated in the DD.</p> <p>h) All CPAs will use option 2 to calculate emission reductions. This has been stated in the revised PoA-DD.</p> <p>CL closed</p>

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option 3 is a valid option for the PoA, and if so, why the relevant parameters are not listed.			
<p>CL 05:</p> <p>(a) There are some inconsistencies between the information presented in the PoA-DD and the CME procedures book. Please clarify and ensure consistency.</p> <p>(b) The specific roles within the CME organisation, and the required competencies of the individuals to be assigned to each role, are not clearly stated in the PoA-DD.</p> <p>(c) Records of training sessions already held and a schedule of future trainings has not been provided.</p> <p>(d) A clear set of steps or procedures showing the process by which technical review of CPA inclusion will take place is not included in the Procedure Book, and the text included in section C of the PoA-DD does not accurately describe the process.</p> <p>(e) Please clarify the procedures for document control in the operation and management plan of the CME.</p> <p>(f) The mechanisms for generating</p>	<p>9.1.1,</p> <p>9.1.2,</p> <p>9.1.3,</p> <p>9.1.4,</p> <p>9.1.6,</p> <p>9.1.7</p>	<p>a) The PoA DD and the CME Procedure book have been reconciled for consistency</p> <p>b) Paragraph b of Section C. of the PoA DD has been amended pursuant to this CL.</p> <p>c) CME Procedure book supported by the submitted and Training Presentations have been submitted as supporting evidence.</p> <p>d) The PoA DD and CME Procedure book have been revised to demonstrate the QA and QC that will be used for technical review including a brief description of the personnel involved in this effort.</p> <p>e) Section C. of the PoA DD has been amended pursuant to this CL.</p> <p>f) Section C. of the PoA DD has been amended pursuant to this CL.</p>	<p>a) Inconsistencies between the PoA-DD and the CME procedures book have been corrected.</p> <p>b) The specific roles within the CME organisation, and the required competencies of the individuals to be assigned to each role are now clearly stated in the PoA-DD, and are consistent with the CME procedures book.</p> <p>c) ERM CVS has reviewed the CME Procedure Book /13/ and training presentations /20/. Sufficient records of arrangements for training and capacity development for personnel have been provided.</p> <p>d) The updated PoA-DD and CME procedures book now contain procedural steps for the technical review of CPA inclusions, and these steps are considered adequate to ensure that the technical review is carried out in line with the CDM requirements for PoAs.</p> <p>e) The PoA DD now states that documents shall be scanned or PDFs of CPA records shall be forwarded to the CME for electronic storage. Where paper forms are scanned, these records will be kept by the CME in the host country for up to 2 years after the end of the CPA crediting period. The procedures for document control are considered sufficient to ensure emission reductions can be properly monitored and verified.</p> <p>f) The revised operation and management procedures described in the PoA-DD include more detailed steps for</p>

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continuous improvements over time (such as internal audits or annual reviews) are not described in the operation and management plan of the CME.			<p>continuous improvement, including:</p> <ul style="list-style-type: none"> Increased use of information technology for data collection e.g. SMS registration, GPS location tagging and QR Code stickers. Annual review of data collection and data entry. Annual internal PoA management appraisals to assess CME performance and the operational efficiency of the PoA. <p>The measures for continuous improvement are considered to provide for adequate monitoring and improvement of performance of the PoA management system.</p> <p>CL closed</p>
CL 06: Please clarify the system for avoiding double counting, in light of the fact that the unique numbering of each stove may not be practical, as described, for the EzyStove (the serial number will be marked only on the combustion chamber, which is replaceable, it will be on the underside of the combustion chamber, hence it will not be accessible if the stove is in use and furthermore it could become obscured through use).	9.1.5	Double counting is a function of unique identifiers on ICSs as well as signed attestation demonstrating that the CPA isn't included in any other registered CDM PoA or stand-alone project activities or voluntary GHG emissions trading project activities.	<p>The CME has revised the description of the unique identification system for each stove. The criteria have been broadened to include serial numbers and batch numbers, which identifies each stove as part of the CPA. As long as all elements are clearly identified with a clearly visible serial number, this shall ensure that ICS are not included in any other project or PoA.</p> <p>CL closed</p>
CL 07: Please clarify monitoring of the number of stoves distributed:	10.1.2	The number of stoves distributed shall be based on the number of stoves which have been shipped from the warehouse or assembly line and received by the CPA	The parameter for monitoring the number of stoves distributed no longer has indexes and it has been clarified that the number of stoves distributed will be recorded per

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<ul style="list-style-type: none"> Indexes I and j are not described Please clarify what will be the primary basis for recording the number of stoves, and what checks will be performed on the database. How biennial monitoring can be suitable if stoves are sold continuously 		<p>operator, distributor or intermediary. This applies directly for CME operated CPAs. Individual CPA operators can opt to track the number of stoves sold based on end user total sales records. Sales data from cook stoves leaving the warehouse or assembly line shall be cross checked with hard copies of records of receipt held by the CPA distributor or intermediary. Section B.7.1 of the PoA DD has been revised pursuant to this request.</p>	<p>each stove model. As each CPA will include one model only, in effect indices in a CPA are not needed but CPAs will be grouped according to the model for calculations and sampling.</p> <p>The PoA-DD explains that the parameter will be recorded based on the records of stoves received by the CPA operator, distributor or intermediary, or based on records of sales to end users. The time gap between stove sales to distributor and stove sales to end user will be taken into account by the parameter D_y, Cumulative number of days which ICSs have been operational in year y. The calculated parameter D_y will be cross-checked against a sample of sales receipts to confirm that the estimated time lag is appropriate.</p> <p>CL closed</p>
<p>CL 08: Please clarify how thermal efficiency of project stoves will be monitored:</p> <ul style="list-style-type: none"> Section B.7.1 refers to conducting water boiling tests but section B.7.2 does not describe conducting such tests and instead refers to monitoring efficiency using monitoring surveys, although it is not clear how efficiency can be checked by means of a survey Please provide reference to a standard protocol that should be used in the monitoring. For example, it is not clear if field-based tests will be conducted and what the length of boiling will be (it is not 		<p>Section B.7.2 of the PoA DD has been amended in accordance with the CL. The PP has clarified that the thermal efficiency shall be quantified using Water Boiling Tests. A standardized Water Boiling Test Protocol has been included in the PoA DD.</p>	<p>The PoA-DD now consistently refers to determining the thermal efficiency of project stoves by means of conducting Water Boiling Tests (WBTs) on a sample of stoves. The PoA-DD refers to the Partnership for Clean Indoor Air (PCIA) WBT protocol, which is an internationally-accepted methodology.</p> <p>CL closed.</p>

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Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
clear if this will be consistent between tests of old and new stoves)			
<p>CL 09: Please clarify how number of days when stoves have been operational in a year will be recorded: it is not clear if the date when the unit reaches a household will be recorded for every ICS, or whether it will be calculated; and in the latter case on what basis and how it would be done.</p> <p>Furthermore the monitoring plan refers to recording date of sales during monitoring surveys. Please also clarify how the parameter will be used – section B.6.1 or B.6.3 does not include reference to it.</p>		<p>Sections B.7.1, B.6.1 and B.6.3 of the PoA DD has been amended pursuant to this CL.</p>	<p>Section B.7.1 of the revised PoA-DD includes parameter D_y, Cumulative number of days which ICSs have been operational in year y, which will be calculated based on number of days in a year y that every stove was operational. Operational start date of every stove will be determined based on the date it is sold to the distributors (based on sales records) and an average time lag between sales to distributor and sales to end users. This average time lag will be determined using a turnover analysis and cross-checked against sales receipts to consumers in the detailed customer database to confirm that the estimated time lag is appropriate. Based on the description of the databases, the dates of sales to the final end users will be recorded as part of the detailed customer database, i.e. for part of the total sales.</p> <p>CL closed</p>

In addition some editorial and minor changes to the PoA-DD were made by the PP that had no relevance on compliance with CDM requirements.

Forward Action Requests	Ref. to Section Number	Summary of PP's response	Final conclusion

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No FARs raised			

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