



CPA VALIDATION REPORT

HESTIAN LTD

CPA Number and Title:

MALAWI BIOMASS ENERGY CONSERVATION PROGRAMME CPA 1

PoA Title:

**BIOMASS ENERGY CONSERVATION
PROGRAMME**

Report No: 8000449119 – 14/021-CPA-001

Date: 2015-07-23

TÜV NORD CERT GmbH
JI/CDM Certification Program
Langemarckstraße, 20
45141 Essen, Germany
Phone: +49-201-825-3329
Fax: +49-201-825-2139
www.tuev-nord.de
www.global-warming.de

CPA Validation Report:	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
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Component:	Title:	CPA-DD In. vers.:	CPA-DD Fin. vers.:	
	Malawi Biomass Energy Conservation Programme CPA 1	2014-02-12, v01	2015-07-07, v05	
CPA Details	Underlying PoA	UNFCCC Ref.-No.	CPA No.	
	Biomass Energy Conservation Programme	-	001	
CME and Project Participants	Project Participants	Party	CME	Annex1
	Hestian Innovation Ltd		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Applied methodology(ies):	Title:	No.:	Scope/TA:	
	Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass	AMS-II.G, version 06.0	3/3.1	
Validation team / Technical Review and Final Approval	Validation Team:	Technical review:	Final approval:	
	Dr. Grzegorz Kochaniewicz (TL) David Lubanga (TM)	S. Winter, LI Yongjun	R. Winter	
Real Case Details	Expected emission reductions over the first crediting period:	(expected) starting date of CPA crediting period	CPA Crediting Period:	
	278,396 tCO _{2e}	2014-02-15	7 years	
Key dates of validation:	Publication of CPA-DD:	Draft Report issued:	On-site (from):	On-site (to):
	2014-02-15	2014-11-19	2014-11-10	2014-11-13
Summary of Validation Opinion:	<p>In detail the conclusions can be summarised as follows:</p> <ul style="list-style-type: none"> - The component activity is in line with all relevant host country criteria (Republic of Malawi) and all relevant UNFCCC requirements for CDM. Project activity approval have been obtained from DNA of Republic of Malawi vide the Letter of Approval (HCA) dated 2015-04-01. - The baseline has been appropriately identified as per the applied methodology. - The framework for determination project additionality is sufficiently justified in the CPA-DD in line with POA-DD and generic CPA-DD. - All eligibility criteria established for CPA inclusion in the PoA-DD have been sufficiently fulfilled. - The monitoring plan is transparent and adequate. - The calculation of the emission factors and the CPA emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of 278,396 tCO_{2e} are most likely to be achieved within the (1st renewable) crediting period. - Information on the local stakeholders' consultation by the project participants prior to submitting the CPA for validation is sufficiently provided in the CPA-DD, which is in line with POA-DD and generic CPA-DD. - Information on the environmental impact analysis of the CPA is sufficiently provided in the CPA-DD, which is in line with POA-DD and generic CPA-DD. <p>The CPA "Malawi Biomass Energy Conservation Programme CPA 1" (CPA Number 001) shall be included in the PoA "Biomass Energy Conservation Programme"</p>			
Document information:	Filename:	No. of pages:		
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Abbreviations

BAU	Business as usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CME	Coordinating / Managing Entity
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
DNA	Designated National Authority
DOE	Designated Operational Entities
EB	CDM Executive Board
EIA	Environmental Impact Assessment
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
GSCP	Global Stakeholder Consultation Process
IPCC	Intergovernmental Panel on Climate Change
LSHC	Local Stakeholder Consultation
MS	Management System
PA	Project Activity
PoA	Programme of Activities
PoA-DD	CDM Programme of Activities Design Document
PoA-DDs	(CDM PoA and CPA) Design Documents
PS	Project Standard
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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1 OBJECTIVE / SCOPE

The purpose of a CPA validation is to have an independent third party assess the CDM component project activity (CPA) design. In particular the CPA's baseline, the monitoring plan (MP), and its compliance with

- the requirements of Article 12 of the Kyoto Protocol;
- the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1
- subsequent decisions made by COP/MOP & CDM Executive Board and
- other relevant rules, including the host country legislation and sustainability criteria

are validated in order to confirm that the CPA design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders on the quality of the project and its intended generation of certified emission reductions (CERs).

The validation scope is given as a thorough independent and objective assessment of the CPA design, information that is included in the PDDs and other relevant supporting documents, to ensure that the proposed CDM programme activity meets all relevant and applicable CDM and PoA criteria.

The information included in the CPA-DD and the supporting documents were reviewed against the requirements as set out by the UNFCCC. The validation team has, based on the requirements in the Validation and Verification Standard^{VVS}, carried out a full assessment of all evidence to assess the compliance of the CPA with the key areas as outlined in section 7. and 8.5 of the VVS.

The validation is not meant to provide any consulting to the project participants. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2 GHG CPA DESCRIPTION

2.1 CPA Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: CPA Characteristics

Item	Data		
CPA number and title	Malawi Biomass Energy Conservation Programme CPA 1		
PoA title	Biomass Energy Conservation Programme		
PoA registration number	N/A		
CPA Host Country / Region:	Republic of Malawi		
CPA Implementer (Name / Address)	Hestian Innovation Ltd		
CPA Location	Republic of Malawi		
Geographic reference (in case of stationary CPA)	Republic of Malawi		
Other means of identification	Unique Identification of each cookstove		
CPA size	<input type="checkbox"/> Large Scale <input checked="" type="checkbox"/> Small Scale		
CPA Scope <i>(according to UNFCCC sectoral scope numbers for CDM)</i>	<input type="checkbox"/>	1	Energy Industries (renewable-/non-renewable sources)
	<input type="checkbox"/>	2	Energy distribution
	<input checked="" type="checkbox"/>	3	Energy demand
	<input type="checkbox"/>	4	Manufacturing industries
	<input type="checkbox"/>	5	Chemical industry
	<input type="checkbox"/>	6	Construction
	<input type="checkbox"/>	7	Transport
	<input type="checkbox"/>	8	Mining/Mineral production
	<input type="checkbox"/>	9	Metal production
	<input type="checkbox"/>	10	Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/>	11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/>	12	Solvents use
	<input type="checkbox"/>	13	Waste handling and disposal
	<input type="checkbox"/>	14	Afforestation and Reforestation
	<input type="checkbox"/>	15	Agriculture
	<input type="checkbox"/>	16	Carbon capture and storage of CO2 in geological formations
Applied Methodology(ies) title and version	Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass, AMS-II.G ver. 06		
PoA Duration	28 years		
Start date of the PoA	2014-02-15		
End date of the PoA	2042-02-14		
PoA-DD GSCP date	2014-02-15		
Starting date of the CPA	2015-08-02		
CPA Crediting period	<input checked="" type="checkbox"/> Renewable Crediting Period (7 y) <input type="checkbox"/> Fixed Crediting Period (10 y)		
Start of crediting period of the CPA	2015-08-02		
End of fixed crediting period of the CPA	2022-08-01		
Estimated CPA emission reductions over the first crediting period (tCO _{2e})	Annual average	39,771	
	Total estimation over the crediting period	278,396	

2.2 Involved Parties, Coordinating / managing entity(ies), program participants of the POA and operators of individual CPAs

The following parties to the Kyoto Protocol and project participants are involved in this PoA (Table 2-2).

Table 2-2: PoA Parties and project participants

	Name of Party/ies	Name of the Entity/ies	Private or Public	CME
Host Country/ies	Republic of Malawi	Hestian Innovation Ltd	Private	<input checked="" type="checkbox"/>
Annex 1 Country/ies	-	-	Private	<input type="checkbox"/>

2.3 Technical CPA Description

The technical key data are provided in table 2-4 below

Table 2-4: Technical data of the CPA

Parameter	Unit	Value
Type	-	Chitetezo Mbaula (portable ICS)
Thermal Efficiency	%	30.6%
Material	-	Clay soil (Ceramic)
Average Lifespan	Months	47
Capacity	-	Single pot
Manufacturer	-	Local trained Production Groups

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the CPA consists of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- A desk review of the CDM-SSC-CPA-DD^{/CPA/} and supporting documents
- Validation planning,
- On-Site assessment, if applicable
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation.

3.2 Contract review

To assure that

- the CPA falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a validation team, consistent of one team leader and one additional team member, as well as Technical Review personnel were appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Dr. Grzegorz Kochaniewicz	-	TL	LA	<input checked="" type="checkbox"/>	3.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	David Lubanga	-	TM ^{A)}	A	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	LI Yongjun	-	TR ^{B)}	SA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Stefan Winter	TÜV NORD CERT GmbH	TR ^{B)}	SA	<input checked="" type="checkbox"/>	3.1	<input type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Rainer Winter	TÜV NORD CERT GmbH	FA ^{B)}	SA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	-

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

⁵⁾ In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Statements of competence for the above mentioned team members are enclosed in annex 6 of this report.

3.4 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements as well as PoA and CPA specific issues which have to be met by the PoA and the proposed CPAs. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CPA is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol as described in Figure 1.

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	Reference	Validation Team Comment	Draft Conclusion	Final Conclusion
<i>The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual project activity.</i>	<i>Gives reference to the information source on which the assessment is based on</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.</i>	<i>In case a corrective action or a clarification the final assessment at the final validation stage is given.</i>

Figure 1: Validation protocol table

The completed validation protocol is enclosed in Annex 1 to this report.

3.5 Review of Documents

The initial CPA-DD (version 1) and supporting background documents related to the CDM programme activity design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the CDM programme activity design or to the basic conditions and technical data.

3.6 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the programme documentations and to gain additional information regarding the compliance of the CPA with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 3-3.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project Participants (PPs),	- Chronological description of the CPA with

Interviewed Persons / Entities	Interview topics
Cooperating Managing Entity (CME), CPA operators representatives Stakeholders (local farmers)	<p>documents of key steps of the implementation.</p> <ul style="list-style-type: none"> - Current status of CPA design - Technical details of the CPA realization, CPA feasibility, designing, operational life time, monitoring of the CPA - Host Government Approval, if applicable - Approval procedures and status - Monitoring and measurement equipment and system - Financial aspects - Crediting period - CPA activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues - Monitoring of CPAs - Analysis of local stakeholder consultation - Roles & responsibilities of the project participants w.r.t. CPA management, monitoring and reporting - National Legislation - Editorial issues of the CPA -DD

A comprehensive list of all interviewed persons is part of section 7 'References'.

3.7 Project comparison

The validation team has compared the proposed CPA with similar CPAs or CDM projects / technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- CPA technology
- Eligibility issues
- Reasons for requests for reviews and rejections within the CDM registration process.

3.8 Resolution of Clarification and Corrective Action Requests

3.8.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the programme documentation which will have a direct influence on the programme results,

- the requirements deemed relevant for validation of the CPA with certain characteristics have not been met or
- there is a risk that the programme would not be registered by the UNFCCC or that emission reductions would not be able to be verified and certified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to programme implementation should be reviewed during the first verification of each CPA.

3.8.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project participants in order to respond on the issues raised and to revise the CPA documentations accordingly.

3.8.3 Final Validation

The final validation starts after receiving the proposed corrective actions (CAs) to the CARs, CLs and FARs from the project participant. The CME has to reply on those and the requests are “closed out” by the validation team in case the response is assessed as sufficient. In case of raised FARs the project participant has to respond on this, identifying the necessary actions to ensure that the topics raised in this finding are likely to be resolved at the latest during the first verification of each CPA. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project participant or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

This CPA validation report includes information regarding how TÜV NORD has determined that the CPA is eligible for inclusion under the PoA.

3.9 Technical review / internal quality control

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this CPA falls under. The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.10 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the CPA-DD, visits, interviews and supporting documents are summarised:

Table 4-1: Summary of CARs, CLs and FARs issued

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
CDM-CPA-DD			
General Description of the Component Project Activity (A) <ul style="list-style-type: none"> - Title of the proposed or registered PoA - Title of the CPA - Description of the CPA - Entity/individual responsible for CPA - Technical Description of the CPA - Party(ies) - Geographic reference - Duration of the CPA - Choice of the crediting period - Start date of the crediting period - Length of the crediting period - Estimated amount of GHG emission reductions - Public Funding of the CPA - Debundling of SSC CPAs - Confirmation for CPA 	6	2	0
Environmental Analysis (B) <ul style="list-style-type: none"> - Analysis of the environmental impacts - Environmental impact assessment (LSC only) 	0	0	0
Local Stakeholder comments (C) <ul style="list-style-type: none"> - Solicitation of comments from local stakeholders - Summary of comments received - Report on consideration of comments received 	0	1	0
Eligibility of CPA and Estimation of Emission Reductions (D) <ul style="list-style-type: none"> - Title and reference of methodology(ies) selected - Application of methodologies - Sources of GHGs - Description of the baseline scenario - Demonstration of eligibility 	3	4	0

Validation topic ¹⁾	No. of CAR	No. of CL	No. of FAR
<ul style="list-style-type: none"> - Estimation of Emission Reductions - Application of the monitoring methodology and description of the monitoring plan 			
Approval and Authorization (CPA-E)	1	1	0
Other aspects (CPA-F): <ul style="list-style-type: none"> - Information displayed in the appendixes - CPA-DD editorial aspects 	0	0	0
SUM	10	8	0

¹⁾ The letters in brackets refer to the validation protocol

The following tables include all raised CARs, CLs and FARs. For an in depth evaluation of all validation items it should be referred to the validation protocols (see Annex 1).

The findings of the verification process are summarized in the tables below.

Finding	A1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.3 The CPA-DD does not include vital information as required by the CPA-DD template form version 03, the CDM Project standard version 07, § 37-30, and the CDM VVS version 07, §229 <ol style="list-style-type: none"> 1. Specific location of CPA 1 2. Specific technology to be installed 3. When the first stove has been installed – if applicable 4. Project stove type, rated output and/or efficiency relative to the baseline stove 5. Expected emission reductions for the CPA 1 6. Sectoral scope Associated checklist question(s): A.3.1		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	<ol style="list-style-type: none"> 1. The CPA DD is now using the more up to date template version 03 and the location of the CPA is provided. The specific location of the CPA is included in section A.7 2. The specific technology of the CPA is included in section A.5 of the CPA DD. 3. The first stoves to be installed will happen as soon as start date of the CPA, which for the first CPA will be the day after the date 		

Finding	A1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
	of registration of the PoA. 4. The project stove type and its thermal efficiency relative to the baseline stove is detailed in the A.5 of the CPA DD. 5. Expected emission reductions from CPA 1 are detailed in A.10. 6. Sectoral scope is detailed in section A.5 of the CPA DD.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.5, A.7, A.10	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. The specific location of the CPA1 has been included in section A.7 of the CPA-DD version 02, as the Republic of Malawi. 2. The Chitetezo Mbaula is an improved cookstove of thermal efficiency of 30.6% ^{/TEC/WBT/} relative to the baseline efficiency of 10% ^{/AMS II. G/} . The same has been included in section A.5 of the CPA-DD 3. At this stage of validation, the first stove has not yet been installed, hence it is not possible to assign the CPA start date as per the <i>CDM Glossary of Terms</i> . 4. Technical specifications of the Chitetezo Mbaula ICS have been included in section A.5 of the CPA-DD version 02.0. 5. Expected Emission reductions have been included in section A.10 of the CPA-DD version 02.0. 6. The appropriate sectoral scope has been included as <i>Energy Demand</i> (Scope 03)		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A2		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input checked="" type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part II section A.5 1. This section is not filled out completely as per template requirements. Associated checklist question(s): A.1 to A.3.1		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is</i>	1. Section A.5 of CPA DD Version 02 has been revised and rewritten.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.5	New version No.:02

Finding	A2		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
requested to indicate the revised sections as well as the new version No.	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Section A.5 has been revised. Nonetheless, point 4 of the CPA-DD template version 03.0 is omitted.		
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Point 4 has now been addressed: the baseline scenario is the same as the scenario existing prior to the implementation of the CPA.		
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Section A.5 of the CPA-DD version 03.0 is now completed as per template requirements.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A3		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.7 Specific location of CPA 1 that allows its unique identification is not provided <i>Associated checklist question(s): A.7</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Specific location is detailed in A.7 of the CPA DD. As production of stoves is eventually retailed throughout the country the unique identification of the CPAs will be chronological rather than linked to specific jurisdictions within the country.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s):A.7	New version No.:02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The specific location of the CPA1 will be the entire Republic of Malawi. Devices will be fixed and distributed all across the country.		

Finding	A3		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A4		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding Describe the finding in unambiguous style; address the context (e.g. section)	Draft CPA-DD version 01, section A.8.1 1. The starting date of the CPA 1 has not been described as per CDM-SSC-CPA-DD-FORM template requirements 2. Proof of project starting date is not availed for validation 3. Date format is not as per template requirements Associated checklist question(s): B.5.1.1		
Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA.DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.	1. 02/07/2015 is the expected start date of the CPA, which is to be the day after the PoA is registered. 2. Proof of registration before it happens is not possible. 3. Date format has been revised to the form of DD/MM/YYYY.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.8.1	New version No.:02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	1. PP contents that the expected start date of the CPA 1 is 2015-05-01. The description is deemed incorrect. Also, this expected date is not included in the revised CPA-DD version 02.0 2. Proof of CPA1 start date (when the first stove under the CPA is installed) is not possible at this stage of validation. 3. Format is as per template requirements		
Corrective Action #2 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA.DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.	1. This has now been revised to 02/08/2015 is the expected start date of the CPA, which is to be the day of first installation, and after the PoA start date 15/02/2014." 2. The CPA start date will be confirmed by stove purchase invoice/delivery note/signed emission reductions contract.		
DOE Assessment #2 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	1. The start date of the CPA is assigned as 02/08/2015, when the first stove is to be installed. This is as per the definition of the CDM Glossary of Terms. 2. The CPA starting date is as per the definition of the CDM Glossary of Terms		
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A5		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.8.2 The expected lifetime of the CPA is not provided correctly, stove type not specified, and no evidence availed for validation. <i>Associated checklist question(s): A.8.2</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	The expected lifetime of the CPA is 7 years, to be renewed.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.8.2	New version No.:02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Section not completed as per template guidelines		
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Operational lifetime of CPA now stated as 21 years/252 months.		
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The operational lifetime of CPA now stated as 21 years		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A6		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.9.1 Section not completed out as per CPA-DD template (version 03) requirements <i>Associated checklist question(s): A.9.1</i>		

Finding	A6		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	It is expected that the registration date of the PoA will be the 01/07/2015 and that the start date / inclusion date for the CPA will be the day after i.e. 02/07/2015.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.9.1	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The start date of crediting is defined as 02/07/2015 or date of PoA/CPA registration.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A7		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.9.2 Section not filled out as per CPA-DD template (version 03) requirements Associated checklist question(s): A.9.2		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	The section has been filled out again as per the CPA-DD template (version 03)		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.9.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	In CPA-DD version 02.0, the section A.9.2 is completed as per template guidelines.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	A8		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, section A.1.2 No information on de-bundling is provided in the CPA-DD version 01. Clarification is requested <i>Associated checklist question(s):</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Debundling information is explicitly provided in section A.12 of the revised CPA DD.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): A.1.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The CPA 1 project is not a debundled component of a larger project activity. Information duly provided in accordance with the 'Guidelines on assessment of debundling for SSC project activities'		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	C1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part III section A.1 1. It is unclear whether the LSHC process is to be carried out at CPA level 2. It is observed that specific start and end dates of the meetings are pending in this section <i>Associated checklist question(s): C.1.1</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. In Section C, C.1 it is clarified that Stakeholder consultation is chosen to be conducted at a PoA level. 2. Specific start dates and end dates for the meetings conducted at a PoA level are provided in Section F.1 of the PoA DD, and this is referred to in Section C.1 of the CPA DD.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): C.1, C.2, C.3	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure,</i>	1. It has been clarified that the stakeholder consultation process (SHCP) is conducted at the PoA level 2. Information on the SHCP has been concluded in PoA-DD in line		

Finding	C1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	with the relevant provisions of the CDM VVS version 07.0, and the CDM Project Standard version 07.0.		
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding Describe the finding in unambiguous style; address the context (e.g. section)	Draft CPA-DD version 01, Part IV section A.1 1. The applied methodology AMS-II.G, Version 5.0 is invalid. 2. Section D.2 of the CPA-DD template version 03 shall outline all applicability conditions of AMS-III.G version 06 Associated checklist question(s): D.1, D.2		
Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.	1. The revised methodology AMS-III.G version 06 is being used as detailed in Section D.1. 2. Section D.2 now details the applicability conditions of AMS-III.G version 06.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.1, D.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	1. Project proponent has adopted the AMS-II.G, Version 6.0 2. Section D.2 of the revised CPA-DD version 02.0 is not complete as per the applied and applicable methodology.		
Corrective Action #2 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.	2. Further information is added on Type classification as per Project Standard.		
DOE Assessment #2 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	2. Section D.2 now includes minimum stove efficiency as per applied methodology as well as the project type.		
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D2		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part IV section A.3 1. Please clarify the inclusion Project Emissions (PE) considered as sources in the project boundary. 2. Geographical boundary to be included and justified as per version 03 of the CPA-DD template <i>Associated checklist question(s): D.3</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. Inclusion of Project Emissions (PE) has been considered as sources in the project boundary as detailed in Section D.3. 2. Geographic boundary is included and justified in Section D.3.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.3	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. Project Emissions has been considered as sources in the project boundary, from the combustion of non-renewable biomass. 2. Geographical boundary is specified as the boundary of the Republic of Malawi		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D3		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part IV section A.5 1. Eligibility criterion b) must specify unique identification of the stoves and the stationary CPA 2. The eligibility criterion c) does not specify the project stove's type, and level of service nor evidence to support the same 3. The eligibility criterion d) does not specify when the CPA activity started, in order to prove compliance with the PoA framework. 4. All applicability conditions shall demonstrate compliance to the PoA framework and not simply reproduce the PoA eligibility criteria <i>Associated checklist question(s): D.5</i>		

Finding	D3		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. Checklist included in D.5 addressing unique identification of stoves and geographic location of CPA. 2. Checklist included in D.5 requires CPAs to specify model / type / design of stove and its minimum thermal efficiency. 3. Format of start of CPA included in the eligibility checklist in D.5. Comprehensive checklist of applicability conditions now include in the checklist		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.5	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. Each unit will be assigned a unique serial number for identification and avoidance of double-counting 2. Incomplete information 3. Incomplete information		
Corrective Action #2 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	2. Revised to include name of cook-stove and minimum thermal efficiency. 3. Format of start date revised to DD/MM/YYYY		
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	2. Stove type, minimum efficiency and level of service are now included in the eligibility table. 3. CPA start date corrected		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D4		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part IV section A.6.1 The CPA implementer shall explain the methodological steps employed in calculating Baseline emissions, Project emissions, Leakage emissions and emission reductions in the CPA clearly stating selected equations, as prescribed by the CPA-DD template version 03 and in accordance with the PoA-DD. Associated checklist question(s): D.6.1		

Finding	D4		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Equations used clearly stated in D.6.1.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.6.1	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The CPA-DD version 02 has been checked and found complete and correct. The methodological choices, applied equations have been well documented and appropriate referencing of the AMS-II. G version 06 have been effected		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D5		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part IV section A.6.2 1. PP is requested to avail the baseline study reports (Malawi) 2. In section D.6.2 of the CPA-DD template version 03, PP is requested to explain areas where the survey was conducted and why it is representative of the entire baseline project boundary of Republic of Malawi. 3. The notation for baseline stove efficiency is incorrect Associated checklist question(s): D.6.2		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. Baseline reports no longer quoted in D.6.2 as the $B_{y=1,new,i,survey}$ is to be monitored in first year of crediting period and baseline surveys are no longer referenced. 2. See point 1 above, baseline surveys no longer referenced. 3. Baseline stove notation corrected.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.6.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.)</i>	1. As per the applied methodology, $B_{y=1,new,i,survey}$ will be monitored in year 1 of the crediting period. References to baseline survey have been removed. 2. As per the applied methodology, $B_{y=1,new,i,survey}$ will be monitored in		

Finding	D5		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
shall be added.	year 1 of the crediting period. References to baseline survey have been removed. 3. Baseline stove notation has been corrected.		
Conclusion Tick the appropriate checkbox	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D6		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding Describe the finding in unambiguous style; address the context (e.g. section)	Draft CPA-DD version 01, Part IV section A.6.3 1. Section D.6.3 shall be completed as per CPA-DD template version 03 requirements (points 1 to 4), and utilizing the relevant in AMS-II.G methodology version 1. CME is also requested to avail the ER spreadsheets, and detailed sampling information Associated checklist question(s): D.6.3.1		
Corrective Action #1 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.	1. Version 03 is now being used utilising equations in AMS-II.G version 06 2. CME has availed the ER spreadsheets, and detailed sampling information <input checked="" type="checkbox"/> Changes in CPA-DD Section(s): D.6.3 New version No.: 02 <input type="checkbox"/> Changes in XLS Worksheet(s): New version No.:		
DOE Assessment #1 The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.	1. AMS-II.G version 06 has been applied in the ex-ante calculation/estimation of ER. 2. ER spreadsheet ^{/XLS/} for both CPA1s have been availed for validation. Nonetheless, as per template guidelines(CDM-SSC-CPA-DD-FORM) version 03.0, i. PP is requested to provide sample calculations for each equation used, substituting the values....., consistent with the spreadsheets provided. ii. PP to clarify the discounted 3.85% project wood consumption in Malawi.		
Corrective Action #2 This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the	2. (i) This is now provided (ii) This has been removed. Discount factor is accounted for in the parameter for discontinued use of baseline technology.		

Finding	D6		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
<i>new version No.</i>			
DOE Assessment #2 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	2. (i) Sample calculations have now been incorporated into the CPA-DD as per template guidelines. (ii) Discount factor is appropriately accounted for in the parameter for discontinued use of baseline technology.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	D7		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft CPA-DD version 01, Part IV section A.7.2 1. Monitoring plan is incomplete as per the prescribed monitoring methodology in AMS-II.G version 06 2. Sampling plan shall follow what is prescribed by the PoA-DD <i>Associated checklist question(s): D.7.2</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. Monitoring plan has been completed as per the prescribed monitoring methodology in AMS-II.G version 06 2. Sampling plan follows what is prescribed by the PoA-DD		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): D.7.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. The monitoring plan has been checked and deemed to be in accordance with the valid AM-II.G version 06. 2. The sampling plan has been adopted to comply with provisions of the sampling standard, the sampling guidelines and the CDM Project Standard.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	E1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Draft PoA-DD version 01, Part V		

Finding	E1		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
<i>biguous style; address the context (e.g. section)</i>	The LoA from the host party DNA needs to be availed for validation. <i>Associated checklist question(s): E.1</i>		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	LoA pending.		
	<input checked="" type="checkbox"/> Changes in CPA-DD	Section(s): E	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>A host country letter of approval (LoA) serial number EAD/99/07/26A dated 2015-04-01 has been granted by the DNA of the Republic of Malawi (Environmental Affairs Department). The letter has been received from the PP, and is signed by an authorized party for the Director of Environmental Affairs.</p> <p>In accordance with the stipulations of § 81-83 of the CDM PS version 09.0, and §51-59 of the CDM VVS version 09.0, the letter confirms that: -</p> <ul style="list-style-type: none"> • Hestian Innovation Limited is the sole project participant/CME of the proposed project activity • Malawi has ratified the Kyoto Protocol • Malawi's participation in the CDM and the PoA is voluntary • The project assists Malawi in achieving sustainable development • The LoA is unconditional <p>The letter contains the precise PoA title. The DOE confirms that the Hestian Innovation Limited is the authorized PP in the country and consistent with the PoA-DD and CPA-DD.</p>		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	E2		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>Draft CPA-DD version 01</p> <p>1. PP is requested to complete all sections of the CPA-DD as per the latest CPA-DD template form available in the UNFCCC website (version 03)</p> <p><i>Associated checklist question(s):</i></p>		

Finding	E2		
Related DDs	<input type="checkbox"/> PoA-DD	<input type="checkbox"/> generic CPA-DD	<input checked="" type="checkbox"/> real case CPA-DD
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the PoA-DD is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	1. PP has completed all sections of the CPA-DD as per the latest CPA-DD template form available in the UNFCCC website (version 03)		
	<input type="checkbox"/> Changes in PoA-DD	Section(s): All	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	1. The CPA-DD is completed is per the CPA-DD template version 03.0		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Technology to be employed

Section A of the finalized CPA-DD version 05 contains a complete description of the proposed Component Project Activity. The description provides a detailed understanding of the purpose and intended operational modes of the project activity. The Malawi Biomass Energy Conservation Programme CPA 1 focuses on the construction and dissemination of improved portable ceramic cook stoves to households in rural, peri-urban and urban households in the Republic of Malawi.

5.1.2 Small Scale Projects

The CPA is a small-scale project. The CPA shall not exceed 180 GWh_{th} aggregate energy savings. The CPA implementer has demonstrated that the CPA has a total thermal energy output of less or equal to 180 GWh_{th} to conform to eligibility criteria.

The CPA is thus eligible as a SSC project. The CPA applies the approved and applicable CDM methodology *AMS-II.G ver. 06: Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass*.

5.2 Project Baseline

5.2.1 Application of the Methodology

The CPA applies the EB approved and valid small-scale methodology AMS-II.G: Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass, version 06. All applied methodological tools valid and approved for the PoA.

All methodology applicability conditions and stipulations have been met for this type of project activity. The CPA is not expected to result in significant emissions, related both to project and leakage, other than those listed in the applied methodology.

5.2.2 Project Boundary

The geographical boundary and boundaries related to GHG sources / sinks is correctly given in section A.7 of the CPA-DD and justified.

The geographical boundaries of the CPA are given as the boundary of the Republic of Malawi. As per AMS II.G version 06, the project boundary of ICS devices in a typical

CPA would be the physical, geographical site of the efficient devices that burn biomass. The boundary defined in the CPA-DD complies with the defined programme boundary. The assessment of sources and gases included in the project boundary are appropriately given in the PoA-DD. It is expected that CO₂ is the major baseline and Project emission gas as a result of combusting non-renewable biomass. The sources are justified and there are no other sources which are impacted by the programme and not addressed by the applied meth. No other GHG emission source greater than 1%, not addressed by the methodology is identified.

Eligibility criteria (a) for CPA inclusion have been adhered to, to comply with the PoA boundary. All applicable national and/or sectoral policies and regulations within that chosen boundary been taken into consideration.

5.2.3 Baseline Identification

The description of baseline identification in section D.4 of the CPA-DD is transparent and verifiable.

The procedure to identify the most plausible baseline scenario derived from the applied methodology has also been applied correctly and is transparently and sufficiently documented and justified in the PoA-DD.

As per applied methodology AMS.II.G version 06, the baseline is pre-defined as *“the use of fossil fuels for meeting similar thermal energy needs” provided by the project activities.*

Therefore, the CPA baseline scenario is correctly defined as:

“in the absence of the project activity, the three-stone fire is one of the main “stoves” used to meet household cooking needs.”

The DOE checked and confirms that the CME has correctly applied the AMS.II.G, version 06 to arrive at the baseline determination.

All relevant national/sectoral circumstances and policies are considered and stated in the PoA-DD. Through the Biomass Energy Strategy, the government has signed on as a national partner to the Global Alliance for Clean Cookstoves and announced a target of 2 million clean and efficient cookstoves in the country by 2020 (2013).

The use of the three-stone traditional fire is the prevailing practice among the targeted households.

5.2.4 Algorithms and formulae used to determine emission reductions

a) Data not monitored

All data not monitored are included in section B.6.2 of the PoA-DD and considered correct and complete as per AMS-II.G version 06: -

i. $f_{NRB,y}$

Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass. The value is 0.81 for Malawi as determined by the UNFCCC and approved by respective countries' DNA.

ii. $NCV_{biomass}$

Net calorific value of the non-renewable biomass that is substituted. The value of 0.015 TJ/t applied as per AMS-II.G version 06.0

iii. $EF_{projected_fossilfuel}$

Emission factor for the substitution of non-renewable biomass by similar consumers. The value of 81.6 tCO₂/TJ applied as per AMS-II.G version 06.0

iv. η_{old}

Efficiency of the system being replaced. The value of 0.10 applied as per AMS-II.G version 06.0

v. L_y

Leakage adjustment factor for period y. The value of 0.95 applied as per AMS-II.G version 06.0

b) Data Monitored

All data monitored are included in section B.7.1 of the PoA-DD and considered correct and complete as follows: -

i. $B_{y=1,new,i,survey}$

Annual quantity of woody biomass used by project devices in tonnes per device of type i. This is determined via sample surveys

ii. $N_{y,i,a}$

Number of project devices of type i and age a that are operating in year y

iii. $\mu_{y,i}$

Number of days of utilization of the project device during the year 'y'

iv. $n_{new,i=1} \times \Delta n_{y,i,a}$

Calculated to determine the efficiency of the used device relative to the efficiency at time of first use (year 1)

The monitoring plan for the parameters has been checked and deemed to be appropriate for the purpose of ER determination

c) Methodological choices and Formulae for the determination of Emission Reductions (ER)

i. Baseline and Leakage emissions

For household cookstoves, the PoA-DD prescribes the following equations for the determination of emission reductions for each CPA

$$ER_y = \sum ER_{y,i}$$

equation 1 of AMS-II.G version 06

$$= \sum B_{y,savings,i,a} \times N_{y,i,a} \times (\mu_{y,i} / 365) \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossilfuel} - LE_y$$

equation 2 of AMS-II.G version 06

Where:

i = Indices for the situation where more than one type of project device is introduced to replace the pre-project devices

a = is the indices for the age (in years) of the cook stoves that are operating in the year 'y' of the crediting period. At any year y of the crediting period (e.g. $y = 1, 2, 3 \dots$ or 7) there will be a population of operational devices of the type i with age varying from $a=1$ (the cook stoves installed during the current year y) up to the age $a=y$ (the cook stoves installed during the first year of the crediting period). Since the lifetime of cook stoves is often shorter than the length of the crediting period and cook stoves are likely to show significant efficiency losses over time, this aspect is captured through the monitoring plan

ER_y = Emission reductions during year y in t CO₂e

$ER_{y,i}$ = Emission reductions by project device of type i during year y in tCO₂e

$B_{y,savings,i,a}$ = Annual quantity of woody biomass that is saved in tonnes per cook stove device of type i and age a in year y

$N_{y,i,a}$ = Number of project devices of type i and age a operating in year y

$\mu_{y,i}$ = Number of project devices of type i and age a operating in year y

$f_{NRB,y}$ = 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, fixed ex-ante at the beginning of each crediting period

$NCV_{biomass}$ = Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne, based on the gross weight of the wood that is 'air-dried')

$EF_{projected_fossilfuel}$ = Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers. A value of 81.6 t CO₂/TJ is used

LE_y = Leakage emissions in the year y

ii. Determination of $B_{y,savings,i,a}$

For the determination of $B_{y,savings,i,a}$, PP has elected to apply equation below, as the WBT tool would be used for determining the efficiency of a representative sample of installed cookstoves (AMS-II.G version 06.0 § 17)

$$B_{y,savings,i,a} = B_{y=1,new,i,survey} \times ((n_{new,i,a=1} \times \Delta n_{y,i,a} / n_{old}) - 1)$$

equation 2 of AMS-II.G version 06

Where:

$B_{y=1,new,i,survey}$ = Annual quantity of woody biomass used by project devices in tonnes per device of type i , determined in the first year of the introduction of the devices. The value of 1.575 t/yr for Republic of Malawi have been determined and validated ex-ante by the Gold Standard Foundation

$n_{new,i,a}$ = thermal efficiency of the device 'i' at age 'a' (WBT)

$n_{new,i,a=1}$ = thermal efficiency of the device at its first year of operation

$\Delta n_{y,i,a}$ = Factor to consider the efficiency loss of the project device type i due to its aging at the year y , expressed as $n_{new,i,a} / n_{new,i,a=1}$

d) Sampling Plan

The target population is low-income rural and peri-urban households that cook and heat water with firewood on three-stone fires or inefficient technologies, who have adopted the project efficient cookstoves. The CPAs are assumed to be homogenous in Malawi.

Sampling would be done at PoA level. Therefore, as prescribed by the methodology § 39, and the Standard for sampling and surveys for CDM project activities and programmes of activities, a 95% confidence level and margin of error of $\pm 10\%$ is necessary for the sampling parameters.

CPAs for the same country will be sampled together. But CPAs from the same country but with different technologies will not be sampled together.

The proposed sampling will involve the estimation of: -

1. The proportion of operational cookstoves, and;
2. The proportion of continued use of baseline technology
3. The mean thermal efficiency of operational stoves

Multi-stage sampling is considered the most appropriate sampling methodology whereby a number of groups can be first sampled and then units within each group are sampled. The main group is the primary sampling unit, and the subgroup is the secondary sampling unit.

In the case of the proposed PoA, the most appropriate group level to be sampled first is the administrative Group Village Head (GVH) level in Malawi. A simple random sample (subgroup) is then drawn from a GVH or Sector.

Estimating the number of GVHs/Sectors to be sampled

This is as per the guidelines 'Sampling and surveys for CDM project activities and programmes of activities' version 03.0. Equation 16 has been appropriately proposed.

$$c \geq \frac{\frac{SD_B^2}{p^2} \times \frac{M}{M-1} + \frac{1}{u} \times \frac{SD_w^2}{p^2} \times \frac{(\bar{N} - \bar{u})}{(\bar{N} - 1)}}{\frac{0.1^2}{1.645^2} + \frac{1}{M-1} \times \frac{SD_B^2}{p^2}}$$

Where:

c	Number of clusters (e.g. GVHs in Malawi) to be sampled
M	Total number of clusters in population (assumed to be about 120 GVHs that have 10 households or more)
\bar{u}	Number of units to be sampled within each group (pre-specified as 10 households)
\bar{N}	Average units per group (estimated to be 50 households per group)
SD_B^2	Unit variance - variance between groups
SD_w^2	Average of the group variances - average within group variation
p	Overall proportion (0.73)
1.96	Represents the 95% confidence required
0.1	Represents the 10% relative precision required

As per the standard for sampling and surveys, if there is more than one parameter to be estimated in a survey, the required sample size will be the largest number obtained in the calculations

For the estimation of the proportion of operational stoves and discontinued use of baseline stoves, CME would expect non-response at sub-group level and would over-sample accordingly by 20%.

For the estimation of mean efficiency and to secure unbiased estimate of the mean value, CME proposes drawing a sub-sample from the samples determining proportions of used project stoves/continued baseline use, as long as the minimum reliability levels are achieved. Due to the homogeneity of CPAs in terms of stove efficiency, simple random sampling is employed and the guidelines 'Sampling and surveys for CDM project activities and programmes of activities' version 03.0 equation 4 is appropriately proposed.

$$n \geq \frac{1.96^2 NV}{(N-1) \times 0.1^2 + 1.96^2 \times V}$$

Where

$V = (SD / \text{expected mean})^2$

n sample size

N total number of households

Mean expected mean

SD expected standard deviation

1.96 represents 95% confidence required

0.1 represents the 10% relative precision

If the sample size is less than 30, then the Student's t-distribution shall be used as prescribed by the sampling standard version 04.1.

The designed sampling plan, selected approaches, assumptions, equations, and survey methods have been assessed. The sampling plan is considered sufficient for the estimation of the usage proportions and the mean thermal efficiency of the improved cookstoves over time; so that reported emission reductions are correct, and conservative.

The implementation of the sampling plan is proposed to be from local experts who are further trained on survey methods. The WBT protocol for testing of project technology efficiencies will conform to manufacture specifications on calibration and handling

All CPAs shall adhere to the sampling and emission reduction approaches prescribed in the registered PoA-DD

All data sources and assumptions for the ex-ante fixed parameters are appropriate and are the corresponding calculations correct and applicable to the programme activity.

The monitoring parameters are considered reasonable and the approaches in the estimated emission reductions at CPA level are plausible and conservative.

5.3 Additionality Determination

5.3.1 Consideration of CDM in decision making (if project start before validation)

The PoA start date has been defined appropriately as 2014-02-15, date of publication of the project documents for GSCP as per §213 b) of the CDM Project Standard version 07.0.0.

In the absence of the proposed CDM PoA, households would continue to use less efficient traditional three-stone fireplace or other to meet their thermal energy needs. As per EB 68, Annex 27 §2 (c), each CPA under the PoA involves dissemination of improved portable ceramic cookstoves (isolated units) to households or communities where the size of each improved cook-stove is not larger than 5% of the SSC CDM thresholds. Therefore, this small-scale PoA is automatically additional and no further additionality analysis is necessary.

5.3.2 Alternatives

The baseline is prescribed in the applied methodology AMS II.G version 06.

5.3.3 Investment analysis

The small-scale CPA is automatically additional as per positive list included in § 2 (c) of EB 68, Annex 27. Hence, no investment analysis is necessary.

5.3.4 Barrier analysis

The small-scale CPA is automatically additional as per positive list included in § 2 (c) of EB 68, Annex 27. Hence, no barrier analysis is necessary.

5.3.5 Common practice analysis

The small-scale CPA is automatically additional as per positive list included in § 2 (c) of EB 68, Annex 27. Hence, no common practice analysis is necessary.

5.4 Monitoring Plan

Section C of the PoA-DD includes an organization chart for the operation and management of the proposed PoA. The CME has defined roles and responsibilities, including data collection, management of the sales database, QA/QC, monitoring and reporting for the purposes of ER calculation. The CME takes the responsibility to oversee CPA inclusions through technical review of all documents and checking the competence of CPA implementers.

All stoves have a unique identification to avoid double counting

The monitoring plan cover all monitoring parameters given in the applied monitoring methodology or all parameters which have to be monitored w.r.t. the CPA boundary.

The means of implementation of the monitoring plan, including data management and quality assurance and quality control procedures, are assessed as sufficient to ensure that the ERs to be achieved by the CPA can be properly reported and verified.

5.5 Crediting Period

The choice of the crediting periods for the real case CPA is 7 years renewable. The date has been given as 2015-08-02, or the date of CPA registration. The start of crediting period is not before the PoA start of validation (starting date) which is 2014-02-15.

5.6 Environmental Impacts

Environmental Analysis is chosen to be done at PoA level and justified. No negative environmental impacts are expected and no requirement for an EIA in Malawi.

5.7 Comments by Local Stakeholders

All relevant local stakeholders been invited to comment on the project. A summary of comments available in the PoA-DD, and comments have been taken into account at PoA level.

5.8 Participation

5.8.1 Project Participants

The PoA-DD includes an identification of the CME as Hestian Innovation Limited. The CME (PP) is Hestian Innovation Limited and still the implementing party for Malawi. The name of the PP is consistent between the Project Design Documents (PoA-DD and CPA-DD), the MoC and the LoA. The parties involved are not project

participants. The CME oversees the implementation of the PoA in both host countries.

5.8.2 LOA

The host country DNA Malawi Environmental Affairs Department has issued the PoA with a host country Letter of Approval. The LoA confirms that:

- The party are a party to the Kyoto Protocol
- Participation of Malawi is voluntary
- That the PoA contributes to sustainable development to the host party
- Refers to the precise project activity title in the PoA-DD intended for submission for registration

The LoA is deemed authentic and signed by authorized persons.

5.8.3 MoC

In accordance with §54-58 of the CDM VVS version 07.0, and §80 of the CDM PS version 07.0, an MoC has been submitted by an authorized party on behalf of the sole project participant for the PoA (CME). PP has included the personal identity, specimen signature and contact details of the nominated entity to communicate with the UNFCCC EB.

The MoC has been received from the PP (Hestian Innovation Limited) with which TÜV NORD has the contractual relationship.

The representative^{/MoC/} who submitted the MoC statement to the DOE and the one who signed the written confirmation is authorized to do so on behalf of the respective project participant.

5.9 PDD editorial Aspects

The final CPA-DD is in compliance with latest CPA-DD Template version 03 and latest version of the guideline for completing CPA-DDs version 03.

6 VALIDATION OPINION

Hestian Innovation Ltd has commissioned the TÜV NORD JI/CDM Certification Program (CP) to validate the project: “**Malawi Biomass Energy Conservation Programme CPA 1**” with regard to the relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting. UNFCCC criteria include article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakech Accords) and the relevant decisions by COP/MOP and CDM Executive Board

In the course of the pre-validation 10 Corrective Action Requests (CARs) and 8 Clarification Requests (CLs) were raised and successfully closed.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties, stakeholders and NGOs have provided TÜV NORD JI/CDM CP with sufficient evidence to validate the fulfilment of the stated criteria.

In detail the conclusions can be summarised as follows:

- The project is in line with all relevant host country criteria (Malawi) and all relevant UNFCCC requirements for CDM. Further the project activity is in compliance with the requirements set up by the applied approved CDM methodology **Fehler! Verwenden Sie die Registerkarte 'Start', um x MethNo+ver dem Text zuzuweisen, der hier angezeigt werden soll.** Project activity approval have been obtained from DNA of The Republic of Malawi vide the Letter of Approval (HCA) dated 2015-04-01.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so that the calculated emission reductions of **278,396 tCO₂e** are most likely to be achieved within the (1st renewable) crediting period.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Kigali, 2015-07-23



Grzegorz Kochaniewicz
TÜV NORD JI/CDM CP
Validation Team Leader

Essen, 2015-07-23



Rainer Winter
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/CMU/	Chitetezo Mbaula (Canarumwe) User Manual
/CLA/	Chitetezo Lifespan Analysis (47 months) March 2013
/CONT/	Household Stove Sales ER contracts
/CPA-DD/	Draft Component project activity design document named Malawi Biomass Energy Conservation Programme CPA 1, version 1, dated 2014-02-12; Final Component project activity design document named Malawi Biomass Energy Conservation Programme CPA 1, version 05, dated 2015-07-07
/LoA/	Host Country letter of Approval for Malawi, dated 2015-04-01
/MoC/	Modalities of Communication, dated 2014-12-13
/SHCP/	Stakeholder consultation process evidence: Questionnaires
/SM/	SAMPLING MANUAL: A Guide to Sampling Under the CDM with Special Focus to PoAs
/TR/	Training details
/WBT/	Chitetezo Mbaula Water Boiling Test (CREEC Test), August 2012
/XLS/	Emission reduction calculation spreadsheet, version 1, dated 2014-11-02 Emission reduction calculation spreadsheet, version 04, dated 2015-05-20

Table 7-2: Background investigation and assessment documents

Reference	Document
/AMS-II.G/	AMS-II.G ver. 05: Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass AMS-II.G ver. 06: Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass
/CL/	<ul style="list-style-type: none"> SSC_223 Clarification about the threshold of thermal energy savings in AMS-II.G SSC_566 Clarification on monitoring requirements for stove efficiency for a project activity utilizing Kitchen Performance Test SSC_595 Clarification on energy efficiency requirements for project cookstoves under AMS-II.G SSC_654 Revision of AMS-II.G to include monitoring requirements for replaced

Reference	Document
	<p>project technologies</p> <ul style="list-style-type: none"> • SSC_659 Clarification on ex-post monitoring of efficiency of improved cookstoves in AMS-II.G • SSC_660 Clarification on how to deal with differences in efficiency test under AMS-II.G • SSC_674 Clarification on the use of qualitative surveys to determine the amount of woody biomass under AMS II.G • SSC_684 Revision of AMS-II.G concerning sample size requirements for thermal efficiency testing • SSC_695 Clarification on thermal efficiency monitoring requirements under AMS-II.G (versions 3.0, 4.0 and 5.0) • SSC_703 Clarification on the requirement to avoid double counting under AMS-II.G • SSC_711 Clarification on the requirement to monitor continued use of baseline stoves under AMS-II.G
/CPAT/	CPA DD Templates (F-CDM-CPA-DD) and (F-CDM-SSC-CPA-DD)
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/GFD/	UNFCCC: Guidelines on Assessment of Debundling for SSC Project Activities (ver. 3.0)
/IPCC-GP/	IPCC Good Practice Guidance & Uncertainty Management in National Greenhouse Gas Inventories, 2000
/IPPC-RM/	Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords & Annex to decision (17/CP.7))
/MS/	Management system for the PoA
/POA-DD/	<p>Draft Programme design document named Biomass Energy Conservation Programme version 1, dated 2014-02-12;</p> <p>Programme design document named Biomass Energy Conservation Programme version 07, dated 2015-07-07</p>
/POAS/	Standard for demonstration of additionality, development of eligibility criteria and Application of Multiple Methodologies for Programme of Activities (version 3.0.)
/PS/	Clean Development Mechanism Project Standard (ver. 7.0)
/PDD-T/	Component project activity design document form for small-scale CDM component project activities (CDM-SSC-CPA-DD-FORM) - Version 03.0

Reference	Document
/SSS/	Standard for Sampling and Surveys for CDM Project Activities and Programme Activities (version 4.1)
/VVS/	Validation and Verification Standard (Version 7.0)
/WBP/	World Bank Tech Paper – what makes people cook with improved biomass stoves 1994

Table 7-3: Websites used

Reference	Link	Organisation
/cd4cdm/	www.cd4cdm.org	UNEP Risoe Centre
/dna/	http://www.eadmw.org/	DNA webpage of Malawi Environmental Affairs Department
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Conor Fox	Hestian Innovation Ltd/ Director
/IM02/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Cristel Cheong	Hestian Innovation Ltd/ Project Development Consultant
/IM03/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Maya Stewart	Area 55 Consulting/ Director
/IM03/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	George Masache	Area 55 Consulting/ Data Manager

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Validation Protocol
- A2:** Assessment of Applicability conditions
- A3:** Eligibility Criteria Compliance
- A4:** Assessment of Financial Parameters
- A5:** Assessment of Barrier analysis
- A6:** Appointment certificates of the team members

ANNEX 1: VALIDATION PROTOCOL

Table A-1: Real Case CDM-CPA-DD Requirements Checklist

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
A. General Description of CPA				
A.1. Title of the proposed or registered PoA (CDM-CPA-DD-Form Attachment, A.1) <i>Check whether the title and reference of the PoA to which the CPA is intended to be included are correct.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section A.1 of the CPA-DD and the PoA as listed on the UNFCCC website and confirms that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> The title of the underlying PoA has been referenced correctly throughout the whole CPA-DD. <input checked="" type="checkbox"/> The reference to the underlying PoA has been made correctly throughout the whole CPA-DD. <i>Additional comment: -</i>	OK	OK
A.2. Title of the CPA (CDM-CPA-DD-Form Attachment, A.2; PS §31a, d) <i>Check whether the following is correct:</i> <ul style="list-style-type: none"> - Title of the CPA - Unique identification of the CPA (- Current version number of the CPA-DD - The date the CPA-DD was completed 	/unfccc/ /CPA-DD / /PS/ /PDD-T/	The validation team has checked section A.2 of the CPA-DD and the the UNFCCC website and confirms that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> The title of the CPA. <input checked="" type="checkbox"/> Unique identification of the CPA. <input checked="" type="checkbox"/> Current version number of the CPA-DD <input checked="" type="checkbox"/> The date the CPA-DD was completed <i>Additional comment: For further details pl. refer to chapter 2 of this report.</i>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
A.3. Description of the CPA				
A.3.1. Description <u>(CDM-CPA-DD-Form Attachment, A.3; PS, §31; VVS, § 224)</u> <i>Check whether the description provided in A.3</i> <ul style="list-style-type: none"> - includes technology(ies) and/or measures to be used by the CPA - is in accordance with the underlying PoA - is in accordance with the applicable provisions of the Project Standard <i>Pl. consider that the technical description should be provided in section A.5 of the CPA-DD.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PS/ /PDD-T/	The validation team has checked section A.3 of the CPA-DD, the underlying PoA ^{/PoA/} chapter 7.1. of the Project Standard ^{/PS/} and confirms that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input type="checkbox"/> Description of technology(ies) and/or measures to be used <input type="checkbox"/> The description is in accordance with the underlying PoA. <input type="checkbox"/> The description is in accordance with the PS incl. <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Description of the purpose of the CPA <input checked="" type="checkbox"/> Explanation how the CA will reduce GHG emissions <input type="checkbox"/> Indication of sectoral scope <i>Additional comment: -</i> In this context the following findings have been identified: CAR A1 has been raised	CAR A1	OK
A.3.2. SSC Eligibility <u>(VVS, §150)</u> <i>Check whether the CPA aims to apply the simplified modalities and procedures for SSC PA. If so please check whether the CPA is eligible for SSC as per the general guidelines to SSC CDM methodologies.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PS/	The validation team has checked the design of the CPA and the assessment is as follows: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The CPA is eligible to apply the simplified modalities and procedures for SSC PA as the CPA belongs to one the following categories and the corresponding threshold values are not expected to be exceeded. <ul style="list-style-type: none"> <input type="checkbox"/> Type I: (< 15 MW_e or appropriate equivalent) <input checked="" type="checkbox"/> Type II: (60 GWh/a) <input type="checkbox"/> Type III (< 60 kt CO_{2e}/a). 	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		<input type="checkbox"/> The CPA does not meet the criteria to apply SSC. <i>Additional comment: -</i>		
A.4. Entity / individual responsible for CPA (CDM-CPA-DD-Form Attachment, A.4) <i>Check whether the information on the CPA implementer(s) is correctly given in section A.4 of the CPA-DD.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PS/ /PDD-T/	The validation team has checked section A.4 of the CPA-DD and confirms on the basis of information received during the on-site visit/meeting with the CME that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> Information provided on the CPA implementer(s) <i>Additional comment: -</i>	OK	OK
A.5. Technical description of the CPA (CDM-CPA-DD-Form Attachment, A.5, PS, §31(e)) <i>Check whether the technical description provided in A.5</i> <ul style="list-style-type: none"> - includes technology(ies) and/or measures to be used by the CPA - a list of facilities, systems and equipment that will be installed and/or modified - a list of facilities, systems and equipment under the exiting scenario - a list of facilities, systems and equipment in the baseline scenario, if different from the existing scenario <i>Please check that the information provided is really essential to understand of the purpose of the CPA.</i> <i>Please provide an additional comment, in case one or more checkboxes cannot be ticked due to the fact that these criteria are clearly not applicable for this CPA.</i>	/CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section A.5 of the CPA-DD, the underlying PoA ^{/PoA/} chapter 7.1 of the Project Standard ^{/PS/} and confirms that the information provided is complete and correct with regards to the following: <ul style="list-style-type: none"> <input type="checkbox"/> Description of technology(ies) and/or measures to be used <input type="checkbox"/> A list of facilities, systems and equipment that will be installed and/or modified by the CPA incl. <ul style="list-style-type: none"> <input type="checkbox"/> arrangement of the main manufacturing / production technology(ies), systems and equipment involved <input type="checkbox"/> age and average lifetime of the equipment based on manufacturer's specifications and industry standards <input type="checkbox"/> existing and forecast installed capacities <input type="checkbox"/> load factors and efficiencies <input type="checkbox"/> monitoring equipments incl. their location 	CAR A1 CAR A2	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		<input type="checkbox"/> energy and mass flow balances and flows incl. their modification <input type="checkbox"/> cross boundary flows, if any <input type="checkbox"/> effect on service levels / energy and mass flows outside the project boundary against the baseline scenario <input type="checkbox"/> A corresponding list is also included for the existing scenario and, if different, for the baseline scenario <input type="checkbox"/> The information provided can be considered as essential. <i>Additional comment: -</i> In this context the following findings have been identified: CAR A2 has been raised		
A.6. Party(ies) (CDM-CPA-DD-Form Attachment, A.6: <u>VVS § 46</u>) <i>Check whether the information on Party(ies) is correctly given in section A.6 of the CPA-DD.</i> <i>Check whether the correct table as per the template has been used.</i> <i>Please also check whether the contact information in Appendix 1 is consistent.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section A.6 of the CPA-DD the UNFCCC website and confirms on the basis of information received during the on-site visit/ meeting with the CME that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> The list of involved Parties is complete <input checked="" type="checkbox"/> The template table has been used and filled in correctly <input checked="" type="checkbox"/> The contact information in Appendix 1 is consistent. <i>Additional comment: -</i>	OK	OK
A.7. Geographic references or other means of	/unfccc/	<i>Description:</i>	CAR A3	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
identification (CDM-CPA-DD-Form Attachment, A.7) <i>Check whether the geographic reference or other means of identification is correctly given in section A.7 of the CPA-DD.</i> <i>Check further whether the information allows the unique identification of the CPA.</i> <i>In case of stationary CPAs appropriate reference, such as GPS coordinates or maps shall be provided. In case of mobile CPAs information such as registration numbers of GPS devices shall be provided.</i> <i>In case of coordinates: Such coordinates shall be in decimal format with +/- sign, and not with a N/E/S/W specifier. The sign can be omitted for positive values. E.g., -54.3124)</i>	/CPA-DD/ /PoA-DD/ /PDD-T/	Information is correctly given on the project boundary. However, unique identification of the CPA1 is not included <i>Validator's action:</i> The CPA-DD was checked <i>Conclusion:</i> CAR A3 has been raised		
A.8. Duration of the CPA A.8.1. Start Date of the CPA (CDM-CPA-DD-Form Attachment , A.8: <u>VVS § 228, PS §207</u>) <i>Check whether start date is correctly given in section A.8 of the CPA-DD and has been determined correctly.</i> <i>Further check if the starting date of the CPA is not prior to the commencement of the validation of the PoA (date of publication for global stakeholder consultation).</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PS/ /PDD-T/	<i>Description:</i> The start date of the CPA1 has been given as 2014-02-17, same as the PoA starting date. However, this has not been described and no proof has been availed. <i>Validator's action:</i> CPA-DD has been reviewed <i>Conclusion:</i> The start date shall be determined as per CDM PS and VVS requirements	CAR A4	OK
A.8.2. Expected operational lifetime of the CPA (CDM-CPA-DD-Form Attachment, A.8)	/unfccc/ /CPA-DD/	<i>Description:</i> The operational lifetime of the CPA1 is given as 7 years. However, the format is incorrect as well as proof of the lifetime not availed for	CL-A5	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
<p><i>Check whether the operational lifetime of the CPA is correctly given in section A.8 of the CPA-DD.</i></p> <p><i>Further check if it has been determined correctly</i></p>	/PDD-T/	<p>validation</p> <p><i>Validator's action:</i></p> <p>The CPA-DD has been reviewed.</p> <p><i>Conclusion:</i></p> <p>CL A5 has been duly raised</p>		
<p>A.9. Choice of the crediting period and related information</p> <p>(CDM-CPA-DD-Form Attachment, A.9)</p> <p><i>Check whether the type of the crediting period (i.e. fixed or renewable) has been specified.</i></p>	/CPA-DD/ /PDD-T/	<p><i>The information has been given in section A.9 of the CPA-DD. The PPs have chosen a renewable crediting period.</i></p>	OK	OK
<p>A.9.1. Start Date of the Crediting Period</p> <p>(CDM-CPA-DD-Form Attachment, A.9)</p> <p><i>Check whether start date of the crediting period is correctly given (in format DD/MM/YYYY) in section A.9 of the CPA-DD.</i></p> <p><i>Further check if it has been determined correctly</i></p>	/CPA-DD/ /PDD-T/	<p><i>Description:</i></p> <p>The start date of crediting period of the CPA is 2014-02-17, or at the date of PoA registration. This is deemed as correct</p> <p><i>Validator's action:</i></p> <p>CPA-DD was reviewed</p> <p><i>Conclusion:</i></p> <p>The start date of CP is stated correctly</p>	OK	OK
<p>A.9.2. Length of the Crediting Period</p> <p>(CDM-CPA-DD-Form Attachment, A.9; VVS § 232)</p> <p><i>Check whether the length of the crediting period is correctly given (in format DD/MM/YYYY) in section A.9 of the CPA-DD.</i></p>	/CPA-DD/ /PDD-T/	<p><i>Description:</i></p> <p>The length of crediting period is not given in the prescribed format. The crediting period would not be allowed to go beyond the PoA validity period.</p> <p><i>Validator's action:</i></p>	CAR A6	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
<i>Further check if the crediting period does not exceed the PoA validity period.</i>		CPA-DD was reviewed <i>Conclusion:</i> CAR A6 has been raised		
A.10. Estimated Amount of GHG emission reductions (CDM-CPA-DD-Form Attachment, A.10; <u>VVS § 96-100</u>) <i>Check whether an estimate of annual emissions reductions for each year of the crediting period and the annual average over the crediting period is correctly given in section A.10 of the CPA-DD.</i> <i>Check whether the correct table as per the template has been used.</i> <i>Please consider that information of emission reductions is also provided in section D of the CPA-DD.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section A.10 of the CPA-DD and the emission reduction calculation (for further information see below) and confirms on the basis of this that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> The annual emission reductions are correct. <input checked="" type="checkbox"/> The annual average of emission reductions over the crediting period is correct. <input checked="" type="checkbox"/> The template table has been used and filled in correctly <input checked="" type="checkbox"/> The values are consistent with those given in section D <i>Additional comment: -</i>	OK	OK
A.11. Public funding of CPA (CDM-CPA-DD-Form Attachment, A.11; <u>EB 74, Annex 5, § 16(h)</u>) <i>Check whether an indication is included in case the PoA receives public funding from Annex 1 Parties is given in section A.11 of the CPA-DD.</i> <i>If this is the case check:</i> <i>a) whether information on Parties providing public funding is included and</i> <i>b) Appendix 2 is including affirmation(s) from such Parties that ODA is in line with the applicable provisions as specified in the PS.</i>	/unfccc/ /CPA-DD / /PoA-DD / /PDD-T/	<i>Description:</i> As per the CPA-DD section A.1.1, no public funding is involved in the proposed programme of activities <i>Validator's action:</i> CPA-DD was reviewed <i>Conclusion:</i> The PoA does not utilize public funding	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
A.12. De-bundling of SSC CPAs (CDM-CPA-DD-Form Attachment, A.12; <u>VVS, § 154-157, 238; EB 54 Annex 13</u>) <i>Check whether the proposed CPA is a de-bundled component of a LSC PA. The criteria for de-bundling are defined in /GFD/. For the purposes of registration of a PoA, proposed SSC- CPA of a PoA shall be deemed to be a de-bundled component of a LSC activity if there is already an activity, which satisfies both conditions (a) and (b) below:</i> <i>(a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and;</i> <i>(b) The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.</i> <i>In case each of the independent subsystems/measures included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology (i.e. 150kW, 0.6 GWh, 0.6 ktCO₂e), then that CPA of the PoA is exempted from the de-bundling check, i.e. is considered as not being a debundled component of a large-scale activity.</i> <i>The simplified SSC modalities and procedures may also be used in case the proposed and the existing activity(ies) together do not exceed the SSC threshold values.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/ /GFD/ /PDD-T/	<input type="checkbox"/> N/A – this a LSC PoA/CPA. <input type="checkbox"/> In line with the EB guidance ^{/GFD/} the CPA is exempted from the de-bundling check. <input type="checkbox"/> The validation team has checked the CPA-DD and confirms on the basis of information about (i) registered SSC PA or (ii) PA for which registration has been applied ^{/unfccc/} as well as the information gained during the site visit that this project is not a de-bundled component of a large scale PA. This assessment is based on the guidelines and clarifications of the EB ^{/GFD/} . <input type="checkbox"/> The CPA is to be considered as a de-bundled activity but due to the size of the existing PA and the proposed CPA this CPA is eligible to apply the simplified SSC modalities and procedures. <input type="checkbox"/> This CPA is to be considered as a de-bundled component of a LSC PA. This CPA is not eligible to apply the simplified SSC modalities and procedures. <i>Additional comment: -</i> In this context the following findings have been identified: CL A7 has been raised	CL A7	OK
A.13. Confirmation for CPA (CDM-CPA-DD-Form Attachment, A.12/13) <i>Check whether the proposed CPA is neither registered as an</i>	/unfccc/ /CPA-DD/ /PoA-	The validation team has checked the corresponding section of the CPA-DD and confirms on the basis of information about (i) registered PA or (ii) PA for which registration has been applied and (iii) CPAs included in registered PoAs ^{/unfccc/} as well as the information gained during the site visit that this project has not been registered as an	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
<i>individual CDM project activity or is part of another registered PoA.</i>	DD/ /IM01/ /PDD-T/	individual CDM project activity nor it is part of another registered PoA. <i>Additional comment: -</i>		
B. Environmental Analysis				
B.1. Analysis of environmental impacts				
B.1.1. Analysis level (PS, §215; VVS § 235) <i>The CME has decided during registration of the PoA whether the analysis of environmental impacts is carried out for the whole PoA or at CPA level. Pl. check on which level the analysis is required and whether it has been carried out in accordance with the PoA requirements.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/	The validation team has checked the underlying PoA-DD and confirms that the CPA falls under <input checked="" type="checkbox"/> Cat. A: The environmental impact analysis has been carried out for the whole PoA <input type="checkbox"/> Cat. B: The environmental impact analysis has to be carried out at the CPA level. Further to this it is confirmed that: <input type="checkbox"/> The environmental impact analysis has been carried out as per the above defined category. <i>Additional comment: -</i> At the draft validation stage, the CME has not provided sufficient information with regards to the EIA process. Appropriate PoA finding at PoA level has been made.	OK	OK
B.1.2. Analysis of environmental impacts (CDM-CPA-DD-Form Attachment, B.1+2; VVS, §	/unfccc/ /CPA-	The validation team has checked sections B.1+2 of the CPA-DD and confirms on the basis of this as well as the information gained during the site visit that the information provided is complete and correct	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
<p>234-235)</p> <p><i>Check whether section B.1 of the CPA-DD includes as summary of the analysis of environmental impacts. Reference to all related documentation shall be included. All information shall be in accordance with the PoA.</i></p> <p><i>Further to this it is required to assess whether the analysis of the environmental impacts was undertaken as per the CDM modalities and procedures. As per decision 3 of CMP.1 § 37 the following has to be assessed:</i></p> <p><i>“Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party”.</i></p>	DD/ /PoA- DD/ /EIA/ /PDD- T/	<p>with regards to the following:</p> <p><input type="checkbox"/> A summary of the analysis of environmental impacts has been provided.</p> <p><input type="checkbox"/> The summary can be assessed as appropriate for the proposed PA.</p> <p><input type="checkbox"/> Reference has been made to all related information.</p> <p>Further it is confirmed on the basis of a detailed analysis of the environmental analysis which has been provided by the CME that:</p> <p><input type="checkbox"/> The analysis of environmental impacts has been carried out in line with the requirements of the CDM modalities and procedures</p> <p>In addition to this in case of an assessment at the CPA level (cat. B):</p> <p><input type="checkbox"/> N/A</p> <p><input type="checkbox"/> It is further confirmed that the analysis of environmental impacts was conducted as described in the CDM-PoA-DD and the CDM-CPA-DD.</p> <p><i>Additional comment: -</i></p> <p>Analysis of environmental impacts is done at PoA level. However, this has not been sufficiently proven and appropriate fining has been made at PoA validation</p> <p>In this context the following findings have been identified:</p> <p>CL E1 was raised at PoA level</p>		
C. Local Stakeholder Comments				

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
C.1. Solicitation of comments from local stakeholders				
C.1.1. Local stakeholder consultation (LSHC) level (VVS, § 236, 237) <i>The CME has decided during registration of the PoA whether the local stakeholder consultation is carried out for the whole PoA or at CPA level. Pl. check on which level the analysis is required / has been carried out and whether this has been correctly reflected in the CPA-DD.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/	<p>The validation team has checked the underlying PoA-DD and confirms that the CPA falls under</p> <p><input type="checkbox"/> Cat. A: The local stakeholder consultation has been carried out for the whole PoA</p> <p><input type="checkbox"/> Cat. B: The local stakeholder consultation has to be carried out at the CPA level.</p> <p>Further to this it is confirmed that:</p> <p><input type="checkbox"/> The CME decision at PoA level has been correctly reflected in the CPA-DD.</p> <p><i>Additional comment: -</i></p> <p>In this context the following findings have been identified:</p> <p>CL C1 has been raised</p>	CL C1	OK
C.1.2. Timelines for LSHC (PS, §217) <i>Check whether the local stakeholder consultation timeline requirements have been met. If the CPA is part of the proposed PoA the LSHC needs to be finished before submission of the PoA for validation. In case of inclusion the LSC shall be completed before inclusion.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/	<p>The validation team has checked the dates of the LSHC and confirms the following</p> <p><input checked="" type="checkbox"/> Case 1 (Assessment as part of PoA validation): The local stakeholder consultation has been carried out before the start date of the PoA validation.</p> <p><input type="checkbox"/> Case 2: (Inclusion, Cat. B) The local stakeholder consultation has been finished.</p> <p><input type="checkbox"/> Case 3 (Inclusion, Cat. A): N/A as the LSHC has been carried out for the whole PoA before registration.</p> <p><i>Additional comment: The LSHC has been carried out on 2012-07-23</i></p>	CL C1	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		and 2014-11-14. In this context the following findings have been identified: CL C1 has been raised		
C.1.3. Solicitation of comments (CDM-CPA-DD-Form Attachment, C.1) <i>Check whether the process by which comments from local stakeholders have been invited for the CPA has been described correctly.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/ /PDD-T/	The validation team has checked section C.1 of the CPA-DD and confirms on the basis of background investigation during the site visit the following: <input checked="" type="checkbox"/> Cat. B: The description of the LSHC process has been correctly reflected in section C.1 of the CPA-DD. <i>Additional comment: -</i> In this context the following findings have been identified: CL C1 has been raised	CL C1	OK
C.2. Summary of comments received (CDM-CPA-DD-Form Attachment, C.2; VVS, § 236-237) <i>Check whether section C.2 of the CPA-DD includes a list of stakeholders that have made comments and a summary of these comments.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/ /PDD-T/	The validation team has checked section C.2 of the CPA-DD and confirms on the basis of LSHC records provided by the CME during the site visit that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> A list of local stakeholders that have made comments has been provided. <input checked="" type="checkbox"/> The summary of comments has also been provided. <input checked="" type="checkbox"/> The information provided is considered to be correct and complete. <i>Additional comment: -</i>	OK	OK
C.3. Report on consideration of comments received (CDM-CPA-DD-Form Attachment, C.3; VVS, §	/unfccc/ /CPA-DD/	The validation team has checked section C.3 of the CPA-DD and confirms on the basis of LSHC records provided by the CME during the site visit considering the overall CPA design that: <input type="checkbox"/> The CME has provided information demonstrating that all	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
236-237) <i>Check whether section C.3 of the CPA-DD includes a demonstration that all comments received during the LSHC have been considered and how due account was taken.</i>	/PoA-DD/ /IM01/ /PDD-T/	<p>comments received have been considered.</p> <p><input checked="" type="checkbox"/> It is demonstrated how due account has been taken of all comments.</p> <p><i>Additional comment: -</i></p> <p>In this context the following findings have been identified:</p> <p>See CL F1 at PoA level</p>		
D. Eligibility of CPA and ER Estimation				
D.1. Title and reference of the approved baseline and monitoring methodology(ies) selected (CDM-CPA-DD-Form Attachment, D.1) <i>Check whether section D.1 of the CPA-DD includes a complete and correctly referenced list of all applied methodologies.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	<p>The validation team has checked section D.1 of the CPA-DD and confirms on the basis of checks of (i) the UNFCCC website and (ii) the PoA-DD that:</p> <p><input type="checkbox"/> The CME has provided a complete and correctly referenced list of all applied methodologies.</p> <p><i>Additional comment: -</i></p> <p>In this context the following findings have been identified:</p> <p>CAR D1 has been raised</p>	CAR D1	OK
D.2. Application of methodologies				
D.2.1. Project type (CDM-CPA-DD-Form Attachment, D.2) <i>Check whether the CME has demonstrated that the CPA qualifies as Type I, II and/or III.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-	<p>The validation team has checked section D.2 as well as Appendix 3 of the CPA-DD and confirms that sufficient and reliable evidence has been provided to confirm that the CPA qualifies as</p> <p><input type="checkbox"/> Type I</p> <p><input checked="" type="checkbox"/> Type II</p> <p><input type="checkbox"/> Type III</p>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
	T/	<i>Additional comment: -</i>		
D.2.2. Applicability conditions (CDM-CPA-DD-Form Attachment, D.2) <i>Check whether it has been demonstrated appropriately in section D.2 and Appendix 3 that all applicability conditions were met. Annex A2 to this report shall be used in order to demonstrate compliance with all applicability criteria of all applied methodologies.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.2 as well as Appendix 3 of the CPA-DD and confirms on the basis of the detailed assessment given in Annex A2 that: <input type="checkbox"/> The applicability criteria of all applied methodologies are met. <i>Additional comment: -</i> In this context the following findings have been identified: Applicability conditions as per the valid methodology AMS-II.G version 06 have not all been outlined. CAR D1 has been raised	CAR D1	OK
D.3. Sources and GHGs				
D.3.1. System boundary (CDM-CPA-DD-Form Attachment, D.3; <u>VVS, §86-87</u>) <i>Check whether section D.3 includes a correct and complete description of the system boundary (GHG gases and GHG sources) which is in accordance with the PoA.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /EIA/ /IM01/ /PDD-T/	The validation team has checked section D.3 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) and confirms also on the basis of the on-site visit that <input checked="" type="checkbox"/> All relevant GHGs have been considered in line with the system boundary as defined in the proposed / registered PoA. <input checked="" type="checkbox"/> All relevant GHGs sources have been considered in line with the system boundary as defined in the proposed / registered PoA. <i>Additional comment: -</i> In this context the following findings have been identified: All relevant GHG sources have been included. However, it is unclear why PE (CO ₂) have been considered. CL D2 has been raised	CL-D2	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
D.3.2. Geographical boundary (CDM-CPA-DD-Form Attachment, D.3) <i>Check whether section D.3 includes sufficient proofs that the geographical location of the CPA is within the boundary definition of the proposed or registered PoA.</i> <i>In this context please also refer to the eligibility criteria.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /IM01/ /PDD-T/	The validation team has checked the justification provided in section D.3 of the CPA-DD as well as the underlying PoA-DD and confirms also on the basis of the on-site visit that <input type="checkbox"/> The proposed CPA lies within the geographical boundary as defined in the proposed / registered PoA. <i>Additional comment:</i> For details of the geographical location of the CPA please refer to section 2 of this report.	CL-D2	OK
D.3.3. Flow diagram (CDM-CPA-DD-Form Attachment, D.3) <i>Check whether section D.3 includes a flow diagram physically delineating the CPA. The flow diagram should include the equipment, systems and flows and mass esp. GHG emissions.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/ /IM01/	The validation team has checked section D.3 of the CPA-DD confirms also on the basis of the on-site visit that <input type="checkbox"/> An appropriate flow diagram has been included which sufficiently shows the equipment used as well as energy and mass flows, incl. GHG emissions. <i>Additional comment:</i> -	N/A	OK
D.4. Description of the baseline scenario (CDM-CPA-DD-Form Attachment, D.4; <u>VVS, § 94,95</u>) <i>Check whether section D.4 of the CPA-DD includes a complete and correct justification of the baseline scenario which has been identified for the CPA in accordance with the PoA.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	<i>Description:</i> The baseline scenario is well justified as per the applied methodology and PoA framework <i>Validator's action:</i> The PoA-DD, CPA-DD and applied methodology have been cross-checked <i>Conclusion:</i>	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		Baseline has been appropriately established		
D.5. Demonstration of eligibility for a CPA (CDM-CPA-DD-Form Attachment; VVS, § 222,231) <i>Check whether it has been demonstrated appropriately in section D.5 that all eligibility criteria as described in the proposed / registered PoA are met. Annex A3 to this report shall be used in order to demonstrate compliance with all eligibility criteria including confirmation of additionality of the CPA.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.5 of the CPA-DD and confirms on the basis of the detailed assessment given in Annex A3 that: <input type="checkbox"/> The eligibility criteria are completely met. <i>Additional comment: -</i> Eligibility criteria have not been included sufficiently for CPAs under this PoA. In this context the following findings have been identified: Depends on closure of the CAR A5 raised under the PoA and further CPA level finding (CAR D3)	CAR D3	OK
D.6. Estimation of Emission Reductions				
D.6.1. Explanation of methodological choices (CDM-CPA-DD-Form Attachment, D.6.1; VVS, §70-72) <i>Check whether section D.6.1 includes a correct and complete description of how the methods or methodological steps as described in the applied methodology(ies) to calculate baseline, project and leakage emissions are applied. Check further if all equations to calculate ER are in accordance with the PoA.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /XLS/ /PDD-T/	The validation team has checked section D.6.1 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) incl. methodological tools, as far as applicable, and confirms that <input checked="" type="checkbox"/> All formulae to calculate baseline emissions have been applied in line with the underlying methodology and the PoA <input type="checkbox"/> All formulae to calculate project emissions have been applied in line with the underlying methodology and the PoA <input checked="" type="checkbox"/> All formulae to calculate leakage emissions have been applied in line with the underlying methodology and the PoA <i>Additional comment: -</i> In this context the following findings have been identified: The formulae applied are based on an outdated version of the	CAR D4 CAR D4	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		applicable CDM methodology. Hence, revisions are required (CAR D1 and D4)		
D.6.2. Data and parameters that are to be reported ex-ante				
D.6.2.1. Completeness <u>(CDM-CPA-DD-Form Attachment, D.6.2)</u> <i>Check whether section D.6.2 includes complete list of all parameters that are not monitored during the crediting period.</i> <i>Consider the requirements of the methodology and the underlying PoA.</i> <i>Values which are calculated or default values of the applied methodology(ies) should not be included.</i> <i>For each parameter identified a parameter table shall be included.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.6.2 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) incl. methodological tools and confirms that <input checked="" type="checkbox"/> The list of parameters which are determined ex-ante, i.e. before inclusion is complete. <input checked="" type="checkbox"/> For each identified parameter a separate table has been included. Additional comment: -	OK	OK
D.6.2.2. Completion of parameter tables <u>(CDM-CPA-DD-Form Attachment, D.6.2)</u> <i>Check whether the parameter tables have been correctly filled. The guidance is as follows:</i> “(a) “Value(s) applied”: Provide the value applied. Where a time series of data is used, where several measurements are undertaken or where surveys have been conducted, provide detailed information in Appendix 4: below. To report multiple values referring to the same data and parameter, use one table. If necessary reference(s) to electronic spreadsheets may be used; (b) “Choice of data”: Indicate and justify the choice of data source. Provide clear and valid references and, where applicable, additional documentation in Appendix 4: below; (c) “Measurement methods and procedures”: Where values are based on measurement, include a description of the measurement methods and	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.6.2 of the CPA-DD as well as the PoA-DD the underlying methodology(ies) incl. methodological tools as well as appendix 4 and confirms that <input checked="" type="checkbox"/> The parameter lists have been completed in line with the guidance given. Additional comment: -	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
<p><i>procedures applied (e.g. which standards have been used), indicate the responsible person/entity that undertook the measurement, the date of the measurement and the measurement results. More detailed information can be provided in Appendix 4: below;</i></p> <p><i>(d) "Purpose of data": Choose one of the following:</i></p> <p><i>(i) Calculation of baseline emissions;</i></p> <p><i>(ii) Calculation of project emissions;</i></p> <p><i>(iii) Calculation of leakage."</i></p>				
<p>D.6.2.3. Correctness</p> <p><u>(CDM-CPA-DD-Form Attachment , D.6.2)</u></p> <p><i>Check whether the information provided in the parameter tables is correct with regards to the "values applied", the "choice of data", the "measurement methods and procedures" as well as the "purpose of data".</i></p>	<p>/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/</p>	<p>The validation team has checked the parameter tables in section D.6.2 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) incl. methodological tools as well as the underlying information sources and confirms that</p> <p><input checked="" type="checkbox"/> "Values applied": The provided values are correct for all parameter tables.</p> <p><input checked="" type="checkbox"/> "Choice of data" The indication why which data source has been selected has been provided for all parameters. The references provided can be assessed as clear and valid.</p> <p><input checked="" type="checkbox"/> "Measurement methods and procedures".</p> <p><input checked="" type="checkbox"/> Measurement methods (e.g. applied standards) have been indicated, if applicable.</p> <p><input type="checkbox"/> responsible persons / entities have been indicated, if applicable.</p> <p><input type="checkbox"/> the date of measurement has been provided.</p> <p><input checked="" type="checkbox"/> "Purpose of data": The correct option has been selected.</p> <p><i>Additional comment: -</i></p> <p>In this context the following findings have been identified:</p> <p>Values might change due to possible different methodological</p>	<p>CAR D4</p> <p>CAR D4</p>	<p>OK</p>

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		choices in the new methodology version 06. (CAR D1 & CAR D4)		
D.6.3. Ex-Ante calculation of ER				
D.6.3.1. Correctness and traceability (CDM-CPA-DD-Form Attachment , D.6.3) <i>Check whether the ex-ante calculation of baseline, project and leakage emissions, or where applicable direct calculation of ER is correct.</i> <i>In case ex-ante values of monitored parameters have been obtained by a sampling approach a description of the sampling efforts need to be provided in line with the Standard for sampling and surveys for CDM PA and PoAs^{/SSS/}.</i> <i>Further check whether it is possible to reproduce the calculation and if a sample calculation is included for each equation.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/ /SSS/ /XLS/	The validation team has checked the ex-ante calculation in section D.6.3 (incl. Appendix 4) of the CPA-DD as well as the XLS calculation sheet and confirms that <input type="checkbox"/> The ER calculation as described in D.6.3 is correct. <input type="checkbox"/> The calculation provided in the XLS calculation sheet is correct. <input type="checkbox"/> The calculation is traceable and reproducible <input type="checkbox"/> A sample calculation has been included for each equation. In case of sampling for ex-ante calculation <input type="checkbox"/> N/A <input type="checkbox"/> The following is confirmed with regards to sampling: <input type="checkbox"/> The sampling approach has been described appropriately. <input type="checkbox"/> The approach is in line with the standard for sampling and surveys ^{/SSS/} . <i>Additional comment: -</i> In this context the following findings have been identified: CAR D5 & CAR D6 have been raised	CAR D5 CAR D6	OK
D.6.4. Summary of the ex-ante calculation	/unfccc/ /CPA-	The validation team has checked the ex-ante calculation in section D.6.3 (incl. Appendix 4) of the CPA-DD as well as the XLS calculation	CAR D5	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
(CDM-CPA-DD-Form Attachment) <i>Check whether the ex-ante calculation of baseline, project and leakage emissions, or where applicable direct calculation of ER is has been correctly listed for each year of the crediting period in the table listed in section 6.4.</i> <i>Further check whether the template table has been used.</i>	DD/ /PoA-DD/ /SSS/ /XLS/ /PDD-T/	sheet in detail, e.g. by means of re-calculation, and confirms that <input type="checkbox"/> The annual, total and average values for baseline, project and leakage emissions as well as emission reductions have been listed correctly. <input type="checkbox"/> The template table has been used <i>Additional comment: -</i> In this context the following findings have been identified: CAR D5 & CAR D6 have been raised	CAR D6	
D.7. Estimation of Emission Reductions				
D.7.1. Data and parameters that are to be monitored				
D.7.1.1. Completeness (CDM-CPA-DD-Form Attachment , D.7.1) <i>Check whether section D.7.1 includes complete list of all parameters that are to be monitored. Consider that parameters which only need to be monitored once during the crediting period (after the registration / inclusion) should (also) be listed in this chapter.</i> <i>For each parameter identified a parameter table shall be included.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.7.1 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) incl. methodological tools and confirms that <input type="checkbox"/> The list of parameters which are to be monitored is complete. <input type="checkbox"/> For each identified parameter a separate table has been included. <i>Additional comment: -</i> List of monitored parameters is incomplete as an outdated methodology has been used In this context the following findings have been identified: CAR D1 and D4	CAR D1 CAR D4	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
D.7.1.2. Completion of parameter tables (CDM-CPA-DD-Form Attachment, D.7.1) <i>Check whether the parameter tables have been correctly filled. The guidance is as follows:</i> <i>“(a) “Source of data”: Indicate the source(s) of data that will be used for the CPA (e.g. which exact national statistics). Where several sources may be used, justify which data sources should be preferred</i> <i>b) “Value(s) applied”: The value applied is an estimate of the data/parameter that will be monitored during the crediting period, but is used for the purpose of calculating estimated emission reductions in section D.6 above. To report multiple values referring to the same data and parameter, use one table. If necessary, reference(s) to electronic spreadsheets may be used;</i> <i>(c) “Measurement methods and procedures”: Where data or parameters are to be monitored, specify the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of periodic measurements, the measurement intervals</i> <i>(d) “QA/QC procedures”: Describe the Quality Assurance (QA)/Quality Control (QC) procedures to be applied, including the calibration procedures, where applicable;</i> <i>(e) “Purpose of data”: Choose one of the following:</i> <i>(i) Calculation of baseline emissions;</i> <i>(ii) Calculation of project emissions;</i> <i>(iii) Calculation of leakage.”</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked section D.7.1 of the CPA-DD as well as the PoA-DD the underlying methodology(ies) incl. methodological tools as well as appendix 5 and confirms that <input type="checkbox"/> The parameter lists have been completed in line with the guidance given. <i>Additional comment: -</i> List of monitored parameters is incomplete as an outdated methodology has been used In this context the following findings have been identified: CAR D1 and D4	CAR D1 CAR D4	OK
D.7.1.3. Correctness (CDM-CPA-DD-Form Attachment, D.7.1) <i>Check whether the information provided in the parameter tables is correct with regards to the “values applied”, the “choice of data”, the “measurement methods and procedures” as well as the “purpose of data”.</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked the parameter tables in section D.7.1 of the CPA-DD as well as the PoA-DD and the underlying methodology(ies) incl. methodological tools as well as the underlying information sources and confirms that <input type="checkbox"/> “Source of data”: The provided sources of data that shall be used for the CPA are correct for all parameter tables. <input type="checkbox"/> “Values applied”: The provided values are valid estimates for	CAR D1 CAR D4	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		<p>all parameter tables.</p> <p><input type="checkbox"/> “Measurement methods and procedures”.</p> <p><input type="checkbox"/> Measurement methods (e.g. applied standards) have been indicated, if applicable.</p> <p><input type="checkbox"/> responsible persons / entities have been indicated, if applicable.</p> <p><input type="checkbox"/> the date of measurement has been provided.</p> <p><input type="checkbox"/> “QA/QC procedures” Where applicable the QA/QC procedures, esp. the calibration requirements have been described.</p> <p><input type="checkbox"/> “Purpose of data”: The correct option has been selected.</p> <p><i>Additional comment: -</i></p> <p>List of monitored parameters is incomplete as an outdated methodology and CPA-DD template form have been applied</p> <p>In this context the following findings have been identified:</p> <p>CAR D1 and D4</p>		
<p>D.7.2. Description of the monitoring plan</p> <p>(CDM-CPA-DD-Form Attachment , D.7.2; <u>VVS, § 233</u>)</p> <p><i>Check whether the monitoring plan for the CPA is in accordance with the approved monitoring methodology.</i></p> <p><i>Further check in case of sampling whether a sampling plan in accordance with the standard for sampling and surveys ^{/SSS/} has been provided.</i></p>	<p>/unfccc/ /CPA-DD/ /PoA-DD/ /SSS/ /PDD-T/</p>	<p>The validation team has checked the monitoring plan as described in section D.7.2 of the CPA-DD in detail and confirms that</p> <p><input type="checkbox"/> The monitoring plan for the CPA is in accordance with the underlying methodology/ies.</p> <p>In case of sampling:</p> <p><input type="checkbox"/> N/A</p> <p><input type="checkbox"/> The following is confirmed with regards to sampling:</p>	CAR D7	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		<input type="checkbox"/> A sampling plan has been provided. <input type="checkbox"/> The sampling plan is in line with the standard for sampling and surveys ^{/SSS/} . <i>Additional comment: -</i> Monitoring plan is deemed to be incomplete In this context the following findings have been identified: CAR D7 has been raised		
E. Approval and Authorization				
E.1. Approval and authorization (CDM-CPA-DD-Form Attachment, E; <u>VVS, § 38-52</u>) <i>Check whether all parties that are involved in the CPA have provided their LoAs.</i> <i>Further check whether the LoAs are valid and meet the UNFCCC requirements.</i>	/PDD-T/	The validation team has checked the Letters of Approval (LOAs) of all involved Parties as described in section E of the CPA-DD in detail and confirms that <input type="checkbox"/> All LoAs of the involved Parties have been provided by the CME. All LoAs are considered valid as the following could be confirmed: <input type="checkbox"/> All DNAs are listed on the UNFCCC website. <input type="checkbox"/> All Parties have duly ratified the Kyoto protocol. <input type="checkbox"/> All LoAs confirm that the participation is voluntary. <input type="checkbox"/> The HCA confirms that the PoA/CPA contributes to the sustainable development of the country. <input type="checkbox"/> All LoAs are unconditional.	CL-E1	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
		<input type="checkbox"/> The name of the PoA/CPA as well as the CME are correct in all LoAs. <i>Additional comment: -</i> At the time of submission of documents to TÜV NORD and raft validation stage, the LoA had not yet been availed for validation In this context the following findings have been identified: CL E1 has been raised		
X. Other Issues				
X.1. Contact information (CDM-CPA-DD-Form Attachment, Appendix 1) <i>Check whether contact information for all entity/individual responsible for the CPA as been included in Appendix 1 of the CPA-DD.</i> <i>Further check whether the information is complete and consistent</i>	/unfccc/ /CPA-DD/ /PoA-DD/ /PDD-T/	The validation team has checked Appendix 1 of the CPA-DD and confirms that: <input checked="" type="checkbox"/> Information tables have been provided for all organisations as listed in section A.6 of the CPA-DD. <input checked="" type="checkbox"/> The information provided in the tables is deemed complete and consistent. <i>Additional comment: -</i> In this context the following findings have been identified: N/A	OK	OK
X.2. Affirmation regarding public funding (CDM-CPA-DD-Form Attachment, Appendix 2) <i>Check, if applicable, whether affirmation form Parties providing public funding to the CPA has been provided.</i>	/unfccc/ /CPA-DD/ /PoA-DD/	The validation team has checked Appendix 2 of the CPA-DD and confirms with regards to public funding to the CPA <input checked="" type="checkbox"/> N/A. <input type="checkbox"/> Affirmation has been obtained from Parties providing public funding.	OK	OK

Checklist Item (incl. guidance for the validation team)	Reference	Validation Team Comments (justification and substantiation of information, data and evidence)	Draft Concl.	Final Concl.
	/PDD-T/	<i>Additional comment: -</i>		
X.3. Management System				
X.3.1. Analysis level (EB74, Annex 5, § 19) <i>Check whether the management system has been assessed on the PoA level. If not, it has to be done as part of the CPA-DD validation. In case the management system has undergone major changes since the validation of the PoA the management system has to be re-assessed.</i>	/unfccc/ /CPA-DD/ /PoA-DD/	The validation team has checked the validation of the underlying PoA and confirms that <input checked="" type="checkbox"/> The assessment of the management system has been done as part of the PoA validation and no major change has occurred. <input type="checkbox"/> The assessment of the management system has not been done as part of the PoA validation or major changes have occurred. <i>Additional comment: -</i>	OK	OK
X.3.2. Assessment (EB74, Annex 5, § 19-20) <i>In case the same has not been carried out as part of the PoA validation please assess the PoA Management system with regards to the following (1) Responsibilities, (2) competence requirements (3) training, (4) TR, (5) double counting, (6) document control and (7) continuous improvement.</i>	/CPA-DD/ /PoA-DD/ /MS/ /POAS/	N/A as the management system has been assessed as part of the PoA validation	OK	OK

ANNEX 2: ASSESSMENT OF APPLICABILITY REQUIREMENTS

Table A-2: Assessment Applicability Criteria

<input type="checkbox"/>	Applicability Criteria of applied methodology(ies) have been completely incorporated in the eligibility criteria
<input type="checkbox"/>	Compliance with applicability criteria has been justified and fulfilled by the CPA as follows

CME Demonstration				DOE Assessment	
No.	Methodology	Applicability Criterion	Justification	Appropriate	Means and result of assessment
1	AMS.II-G, version 06.0	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 to replace the existing devices and/or energy efficiency improvements in existing biomass fired cook stoves or ovens or dryers.	The PoA's stated objective is to disseminate improved biomass-fired cookstoves to households in Malawi that are more efficient than the traditional used technologies in fuelwood consumption. This CPA complies with the same objective	<input checked="" type="checkbox"/>	The PoA-DD and CPA-DD have been compared. The CPA fosters the same objective of the PoA. Applicability criterion has been fulfilled
2	AMS.II-G, version 06.0	The methodology is applicable to single pot or multi pot portable or in-situ cook stoves with rated efficiency of at least 20 per cent. The efficiency of the project devices shall be based on certification by a national standards body or an appropriate certifying agent	The CPA distributes one pot or two pots cookstoves with a rated efficiency of 30.6%. This meets the minimum requirement of the applied methodology. An eligibility criterion has been established to ensure that all CPAs conform to this requirement.	<input checked="" type="checkbox"/>	The validation team assessed the WBT protocol and carried out onsite interviews. The validation team also checked a GS registered project with the same efficiency and thermal output. The methodology applicability condition has been sufficiently justified and met.

CME Demonstration				DOE Assessment	
No.	Methodology	Applicability Criterion	Justification	Appropriate	Means and result of assessment
		<p>recognized by that body. Alternatively, manufacturer specifications on efficiency based on water boiling test (WBT) may be used. The sampling test of stoves by such certification bodies/agents or manufacturers shall be conducted following a 90/10 precision in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities". However, the following simplified approach may be used, when the efficient cook-stoves are produced by a manufacturer with a good quality management system in place to ensure that the individual equipment produced do not vary beyond the range of acceptance limits (e.g. characteristics such as materials, critical dimensions):</p> <p>a) Conduct a sample test on three cook stoves with three tests conducted for</p>	<p>The water boiling test has been conducted for the first batch of stoves by a competent entity following the latest WBT protocol and sampling requirements. Efficiency loss is also monitored to establish trends and to adjust emission reductions in the crediting period. This also ensures minimum efficiency is obeyed. The sampling test has been conducted following a 90/10 precision in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities"</p>		

CME Demonstration				DOE Assessment	
No.	Methodology	Applicability Criterion	Justification	Appropriate	Means and result of assessment
		<p>each stove;</p> <p>b) If the standard deviation of the nine test results indicated above is very small and 90/10 precision requirement is met (in this case, the value of the t-distribution for 90 per cent confidence shall be used instead of Z value), the efficiency determined is acceptable, otherwise more sample tests would be required until 90/10 precision is met.</p>			
3	AMS.II-G, version 06.0	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.	PP has demonstrated that non-renewable biomass has been used in the host country since 1989 using published literature (PoA-DD section B.3). Examples include, State of the State of the Environment Report, Malawi, 2010, Global Forest Resources Assessment 2010 indicating that forest cover has been declining since before 1989. The sources are deemed reliable and therefore this applicability	<input checked="" type="checkbox"/>	The PP has demonstrated the compliance with the applicability condition using published literature in the host country. The sources and references cited in the PoA-DD have been cross-checked by the validation team, and are deemed credible and reliable in establishing that non-renewable biomass has been used since before and after December 31, 1989. Therefore, this applicability condition is fulfilled.

CME Demonstration				DOE Assessment	
No.	Methodology	Applicability Criterion	Justification	Appropriate	Means and result of assessment
			condition is met.		
4	AMS.II-G, version 06.0	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.	<p>Each Component Project Activity (CPA) will ensure that aggregate energy savings does not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input.</p> <p>This criterion is been met through ensuring that the number of disseminated cookstoves remains within the SSC limit during the PoA lifetime.</p>	<input checked="" type="checkbox"/>	Emission reductions for each CPA will be managed in such a way that the equivalent thermal energy savings do not exceed the SSC thresholds.

ANNEX 3: ELIGIBILITY CRITERIA COMPLIANCE

Table A-3: Assessment on CPA Compliance with Eligibility Criteria specified in the registered PoA-DD (VVS, §231 and EB74, Annex 5, §18)

<input type="checkbox"/>	Eligibility Criteria has not been sufficiently justified and fulfilled by the CPA
<input checked="" type="checkbox"/>	Eligibility Criteria has been sufficiently justified and fulfilled by the CPA as follows

CME Demonstration			DOE Assessment	
No.	Eligibility Criteria	Justification	Appropriateness	Explanation of final result
a.	CPAs shall be located within the geographical boundaries set in the PoA, i.e. the Republics of Malawi and Rwanda, unless otherwise discussed with and approved by the CDM;	Section A.7 of the CPA-DD specifies that the CPA is located in Malawi. An LoA has been obtained from the host country DNA	<input checked="" type="checkbox"/>	The EC has been fulfilled
b.	CPA cookstoves will be assigned unique serial numbers to be etched into the stove and captured on Emission Reduction (ER) contracts together with end-user details (name, address, phone number – if available);	The CPA-DD states that each stove will be assigned a unique serial number, and each number will be stored electronically.	<input checked="" type="checkbox"/>	The EC has been fulfilled
c.	CPA cookstoves shall primarily target rural and peri-urban households using woody biomass for cooking and heating water. CPA stoves, whether single pot or multi pot, portable or in-situ, shall have a minimum rated efficiency of 20%;	The CPA-DD states that the proposed CPA targets households in rural and peri-urban areas. The efficiency through WBT has been determined to be 30.6%.	<input checked="" type="checkbox"/>	The EC has been fulfilled
d.	In addition to details in criterion (b), the date of sale shall be captured for improved household cookstoves, whereby date of commission is assumed to be (i) the day after the date of sale	The date of sale shall be captured and stored electronically for each improved household	<input checked="" type="checkbox"/>	The EC has been fulfilled

CME Demonstration			DOE Assessment	
No.	Eligibility Criteria	Justification	Appopr.+ sufficient	Explanation of final result
	for retail sales or (ii) the last day of the month after the month of delivery for bulk sales;	cook-stoves		
e.	Each CPA shall conform to applied methodology of the PoA – AMS-II.G. Version 06: Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass;	The CPA conforms to the applied CDM methodology AMS.II-G	<input checked="" type="checkbox"/>	The EC has been fulfilled
f.	As per B.1, CPA stoves shall be isolated units to be used by households, communities or Small and Medium Enterprises (SMEs) and shall be under 750 kW installed capacity or under 3,000 MWh of energy savings per year or 3,000 tonnes of emission reductions per year;	The portable <i>Chitetezo Mbaula</i> and fixed <i>Canarumwe</i> ICS stoves are isolated units to be installed mainly in isolated households, and are under 750 kW installed capacity or under 3,000 MWh of energy savings per year or 3,000 tonnes of emission reductions per year.	<input checked="" type="checkbox"/>	The EC has been fulfilled
g.	LSCs and EIA for improved household cook-stoves should be conducted at PoA level;	The LSC and EIA have been conducted at PoA-level	<input checked="" type="checkbox"/>	The EC has been fulfilled
h.	CPAs funded through official development assistance or diversion of such will not be eligible for inclusion in the PoA;	No ODA is involved in the project activity	<input checked="" type="checkbox"/>	The EC has been fulfilled
i.	Improved household cook-stove CPAs should target domestic users using solid biomass as their primary fuel, with initial emphasis on low income rural and peri-urban communities;	The CPA-DD states that the proposed CPA targets biomass users in households in rural and peri-urban areas.	<input checked="" type="checkbox"/>	The EC has been fulfilled
j.	CPAs shall follow the monitoring plan outlined in generic CPA-DD section B.7.2 (Description of the monitoring plan for a generic CPA) which adheres to applied methodology – AMS-II.G, Standard for sampling and surveys for CDM	The description of the monitoring and sampling plans in the CPA-DD has been compared and found to conform to the PoA-DD	<input checked="" type="checkbox"/>	The EC has been fulfilled



CME Demonstration			DOE Assessment	
No.	Eligibility Criteria	Justification	Appopr.+ sufficient	Explanation of final result
	project activities and programme of activities V 04.1 and Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities V 3.0;	prescription		
k.	The ER target for each CPA shall not exceed the small-scale CPA aggregate energy savings limit of 60 GWh per year or 180 GWh thermal per year in fuel input;	In Section D.2 of the CPA-DD, PP has demonstrated that the CPA will not exceed the SSC limit of 180 GWh _{th}	<input checked="" type="checkbox"/>	The EC has been fulfilled
l.	CPAs shall not be a debundled component of a larger scale project activity.	The CPA is not a debundled component of a larger scale project activity	<input checked="" type="checkbox"/>	The EC has been fulfilled

^{*)} In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 4: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-4: Assessment of Financial Parameters (VVS, §§ 120, 121 / in case financial parameters stem from FSR §122)


<input checked="" type="checkbox"/>	No financial parameters are used for additionality justification					
<input type="checkbox"/>	Assessment of all financial parameters see below					
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT	
					Correctness of value applied	Comment
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	

ANNEX 5: ASSESSMENT OF BARRIER ANALYSIS

Table A-5: Assessment of Barrier Analysis (VVS, §§ 124-127)

<input checked="" type="checkbox"/>		No barrier parameters are used for additionality justification		
<input type="checkbox"/>		Assessment of barriers see below		
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	

ANNEX 6: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Grzegorz Kochaniewicz


SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2016-01-24
Validation/Verification	Technical Reviewer	2016-01-24
VCS / ISO 14064-2	Lead Assessor	2016-01-24

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar
3.1	Energy Demand	
14.1	Forestry	

173 – Rev. 5, Date: 2014-12-12

173_301-FA05-F20_2014-12-12_wv1.doc 301-FA05-F20-wv1 / 2012-10-20




Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. David Lubanga

SCHEME	STATUS	VALID UNTIL
CDM	Assessor	2015-08-09
VCS / ISO 14064-2	Assessor	2015-08-09

251 – Rev. 1, Date: 2012-08-10

251_301-FA03_2012-08-10_wv1.doc 301-FA03-wv1 / 2012-04-05



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Yongjun Li


SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2015-06-26
VCS / ISO 14064-2	Senior Assessor (Validation, Verification) Technical Reviewer	2015-06-26

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal
13.1	Waste Handling and Disposal	

039 – Rev. 2, Date: 2014-09-22

039_301-FA01_2014-09-22_wv2.doc 301-FA01-wv2 / 2013-04-05



Statement of Competence
Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27
VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal energy generation	1.1.1 Hydro 1.1.2 Wind 1.1.3 Geothermal 1.1.4 Solar 1.1.5 Tidal
1.2	Renewable Energy	
2.2	Heat distribution	
3.1	Energy demand	
13.1	Waste handling and disposal	13.1.1 Waste management 13.1.2 Waste water management
13.2	Animal waste management	
15.2	Animal waste management	

163 – Rev. 3, Date: 2014-07-28

163_301-FA03_2014-07-28_wv3.doc 301-FA03-wv1 / 2011-08-02

**Statement of Competence**

Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Rainer Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2013-07-03
Ji	Senior Assessor Technical Reviewer	2013-07-03
VCS	Senior Assessor Technical Reviewer	2013-07-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal Energy Generation	
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Total
4.1	Cement Sector	
4.3	Iron and Steel	
4.5	Waste Heat Recovery	
5.1	Chemical Process Industries	
9.1	Metal Production	
11.1	Chemical Process Industries	
11.2	GHG Capture and Destruction	
12.1	Chemical Process Industries	
13.1	Waste Handling and Disposal	13.1.1 Waste Management

003 – Rev. 5, Date: 2011-06-01

003_301-F003_2011-06-01_wv5

301-F003 rev5 / 2010-04-19