



POA VALIDATION REPORT

“HEAT RETENTION COOKING IN LESS DEVELOPED COUNTRIES” IN RWANDA

REPORT No. 2012-9113

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POA VALIDATION REPORT

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Summary:

Title of PoA: Heat Retention Cooking in Less Developed Countries

Country: Rwanda

Methodology: AMS-II.G.

Version: 03

GHG reducing Measure/Technology: Heat-retention cooking (HRC) device

ER estimate of PoA: 283 179 tCO₂e per year (average)

Size

☐ Large Scale

☒ Small Scale

Validation Phases:

☒ Desk Review

☒ Follow up interviews

☒ Resolution of outstanding issues

Validation Status

☐ Corrective Actions Requested

☐ Clarifications Requested

☒ Approval and submission for registration

☐ Rejected

In summary, it is DNV's opinion that the programme of activity "Heat Retention Cooking in Less Developed Countries" in Rwanda, as described in the PoA-DD, version 03 of 15 March 2013, meets all relevant UNFCCC requirements for the CDM and correctly applies the baseline and monitoring methodology AMS-II.G., version 03. Hence DNV requests the registration of the project as a CDM project activity.

Report No.: 2012-9113	Subject Group: Environment
Report title: Heat Retention Cooking in Less Developed Countries in Rwanda	
Work carried out by: Francesca Feller, Grant Little	
Work verified by: Andres Espejo; Giovanni Tenderini	
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CPA-DD	CDM component project activity design document
CH ₄	Methane
CL	Clarification request
CME	Coordinating/managing entity
CMEA	Coordinating/managing entity Agent
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CPA	Component project activity
DMS	Demand Side Management
DOE	Designated Operational Entity
DNV	Det Norske Veritas
DNA	Designated National Authority
EF	Emission Factor
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GPS	Global Positioning System
GWP	Global Warming Potential
HRC	Heat Retention Cooking
LDC	Less Developed Country/ies
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of approval
N ₂ O	Nitrous oxide
NB	Natural Balance
NBI	Natural Balance International Ltd
NGO	Non-governmental Organisation
MoC	Modalities of communication
ODA	Official Development Assistance
PP	Project Participant
PoA	Programme of activities
PoA-DD	CDM programme of activities design document
PS	Clean Development Mechanism Project Standard
tCO ₂ e	Tonnes of CO ₂ equivalents
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Clean Development Mechanism Validation and Verification Standard
WB	WonderBag



1 EXECUTIVE SUMMARY – VALIDATION OPINION

DNV Climate Change Services AS (DNV) has performed a validation of the programme of activity (PoA) “Heat Retention Cooking in Less Developed Countries” in Rwanda including generic information relevant to all component project activities (CPAs) to be included in this PoA. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

The host Party is Rwanda and the Annex I Party is the United Kingdom. Both Parties fulfill the participation criteria and have approved the PoA and authorized the project participants Natural Balance International Ltd, ABHAssociates Ltd. The DNA from Rwanda confirmed that the project assists in achieving sustainable development.

The PoA correctly applies the baseline and monitoring methodology AMS-II.G., version 03 “Energy efficiency measures in thermal applications of non-renewable biomass”.

To achieve the reduction in fuel usage, the programme promotes wide-spread use of a heat-retention cooking (HRC) device. As a result, the PoA results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the PoA and typical component project activities (CPAs) are not a likely baseline scenario. Emission reductions attributable to the PoA are hence additional to any that would occur in the absence of the project activity.

The total emission reductions of all CPAs expected to be included to the PoA are estimated to be on the average 283 179 tCO₂e per year.

The monitoring plan provides for the monitoring of the PoA’s emission reductions. The monitoring arrangements described in the monitoring plan are feasible within the PoA design and it is DNV’s opinion that the project participants are able to implement the monitoring plan.

In summary, it is DNV’s opinion that the PoA “Heat Retention Cooking in Less Developed Countries” in Rwanda, as described in the PoA-DD, version 03 dated 15 March 2013 meets all relevant UNFCCC requirements for the CDM and correctly applies the baseline and monitoring methodology AMS-II.G., version 03. Hence, DNV requests the registration of the PoA as a CDM PoA.

Venice and Oslo, 15 March 2013

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2 INTRODUCTION

Natural Balance International Ltd has commissioned DNV Climate Change Services AS (DNV) to perform a validation of the proposed small-scale CDM Programme of Activities (PoA) “Heat Retention Cooking in Less Developed Countries” in Rwanda (hereafter called “project”). This report summarises the findings of the validation of the PoA including generic information relevant to all component project activities (CPAs) to be included in this PoA, performed on the basis of UNFCCC criteria for CDM PoAs, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale CDM project activities and the subsequent decisions by the CDM Executive Board.

2.1 Objective

The purpose of a validation is to have an independent third party assess the small-scale PoA design document (PoA-DD) including the description of the generic component project activity (CPA) with generic information relevant to all CPAs to be included in this PoA. In particular, the eligibility criteria for inclusion and demonstration of additionality of CPAs, the programme's baseline determination, monitoring plan, and the programme's compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the programme design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM PoAs and is seen as necessary to provide assurance to stakeholders of the quality of the programme and its intended generation of certified emission reductions (CERs).

2.2 Scope

The validation scope is defined as an independent and objective review of the PoA-DD including the description of the generic component project activity (CPA) with generic information relevant to all CPAs to be included in this PoA. The PoA-DD was reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, the simplified modalities and procedures for small-scale CDM project activities, Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities /26/ and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology AMS-II.G. (version 03).

The validation of the programme has also considered the completed CPA-DD for the CPA with the title *Heat Retention Cooking in Rwanda* submitted together with the PoA-DD.

The validation was carried out in accordance with the principles and the requirements for validation contained in the Validation and Verification Standard /21/.

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



3 METHODOLOGY

The validation consisted of the following three phases:

- I document review
- II follow-up actions (e.g. on-site visit and telephone or email interviews)
- III the closing out of validation findings and the issuance of the final validation report and opinion

The following sections outline each step in more detail.

3.1 Document review

The following tables list the documentation that was reviewed during the validation.

3.1.1 Documentation provided by the project participants

- /1/ ABHAssociates: *CDM-SSC-PoA-DD for PoA titled "Heat Retention Cooking in Less Developed Countries"*, Version 01, dated 27 February 2012 and version 03 dated 15 March 2013
- /2/ ABHAssociates: *CDM-SSC-CPA-DD for CPA titled "Heat Retention Cooking in Rwanda"*, Version 01, dated 7 November 2012 and version 03 dated 15 March 2013
- /3/ ABHAssociates: *Calcs-CPA01_HRC_LCDs*, 7 March 2013
- /4/ ABHAssociates: *Report on stakeholder consultation*, 26 November 2011
- /5/ Natural Balance International Ltd: *Wonderbag Manufacturing specifications – WBI*, 22 May 2012
- /6/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Ministry of Agriculture*, 17 November 2011
- /7/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Ministry of Gender and Family Promotion*, 17 November 2011
- /8/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Rwandan Information Office*, 17 November 2011
- /9/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Mayor of Kamonyi district*, 17 November 2011
- /10/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Ministry of Lands Environment, Forestry, Water & Mines*, 17 November 2011
- /11/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Ministry of Infrastructures*, 17 November 2011
- /12/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the New Times Office*, 17 November 2011
- /13/ Natural Balance International Ltd: *Stakeholder's consultation on Wonderbag sent to the Rwandan DNA*, 17 November 2011
- /14/ University of Oxford and University of Kigali: *Fuel-saving performance of the Wonderbag – baseline survey and kitchen performance tests – Rwanda 23rd April -15th May*, 2 July 2012



- /15/ University of Oxford and University of Kigali: *Data Pre- Validation Field Survey Rwanda May 2012*, 20 July 2012
- /16/ Natural Balance International Ltd: *Funding from the programme*, 31 July 2012
- /17/ Natural Balance International Ltd: *Modalities of communication statement*, 27 November 2012
- /18/ Index Mundi: Rwanda – urban population, Available at: <http://www.indexmundi.com/facts/rwanda/urban-population> (accessed: February 2013)

3.1.2 Letters of approval

- /19/ DNA of Rwanda: *Letter of Approval*, 9 July 2012
- /20/ DNA of United Kingdom: *Letter of Approval*, 18 September 2012

3.1.3 Methodologies, tools and other guidance by the CDM Executive Board

- /21/ CDM Executive Board: *Clean Development Mechanism Validation and Verification Standard*, version 03
- /22/ CDM Executive Board: *Clean Development Mechanism Project Standard*, version 02.1
- /23/ CDM Executive Board: *Clean Development Mechanism Project Cycle Procedure*, version 03.1
- /24/ CDM Executive Board: *Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities*, version 01.1
- /25/ CDM Executive Board: *Standard for sampling and surveys for CDM project activities and programme of activities*, version 03.0
- /26/ CDM Executive Board: *Guidelines for sampling and surveys for CDM project activities and programme of activities*, version 02.0
- /27/ CDM Executive Board: *Baseline and monitoring methodology AMS-II.G.* version 03
- /28/ CDM Executive Board: *Guidelines for completing the programme design document form for small-scale CDM programme of activities*, Version 02.0, EB67, Annex30
- /29/ CDM Executive Board: *General Guidelines for SSC CDM Methodologies*, Version 19.0, EB69, Annex27
- /30/ CDM Executive Board: *Guidelines on the demonstration of additionality of small-scale project activities*, Version 09, EB 68, 20 July 2012
- /31/ CDM Executive Board: *Guidelines on assessment of debundling for SSC project activities*, Version 03, EB 54

3.1.4 Documents used by DNV to validate / cross-check the information provided by the project participants

- /32/ UNFCCC: *CDM*, available at: <http://unfccc.int/>
- /33/ CARE International Rwanda: *Case project baseline study report*, August 2008
- /34/ FAO: *State of the World's Forests*, August 2011
- /35/ Republic of Rwanda, Ministry of Forestry and Mines: *Strategic Plan for the forest sector*, June 2010



- /36/ USAID: *Rwanda environmental threats and opportunities assessment 2008 update*, July 2008
- /37/ FAO: *WISDOM Rwanda*, January 2011
- /38/ J. D. Ndayambaje and G. M. J. Mohren: *Fuelwood demand and supply in Rwanda and the role of agroforestry*, 20 April 2011
- /39/ Intergovernmental Panel on Climate Change: *Revised IPCC guidelines for national greenhouse gas inventories: reference manual*, 1997
- /40/ Gold Standard Foundation: *Technologies and Practices to Displace Decentralized Thermal Energy Consumption*, version 01, 11 April 2011
- /41/ UNDP and World Bank: *Commercialization of Improved Charcoal Stoves and Carbonization Techniques*, December 1991
- /42/ European Union Energy Initiative: *Biomass energy strategy (BEST)*, Rwanda, volume 3, June 2009
- /43/ Environment Agency: *List of Projects with UK Approval of Participation*, available at: <http://www.environment-agency.gov.uk/business/topics/pollution/129666.aspx> (accessed: January 2013)

3.2 Follow-up actions

On 26 and 27 March 2012 DNV visited Kigali and performed interviews with project stakeholders.

	Date / Type of interview	Name / Organization	Topic
/44/	2012-03-26/27 <input checked="" type="checkbox"/> On-site <input type="checkbox"/> Face-to-face at office <input type="checkbox"/> Telephone <input type="checkbox"/> E-mail	Adam Harvey ABHAssociates Ltd	<ul style="list-style-type: none"> • Project design document; • Baseline; • Application of methodology; • Eligibility criteria; • Environmental impact; • Stakeholder consultations; • Contribution to sustainable development; • GHG calculations; • Monitoring plan;
/45/	2012-03-26/27 <input checked="" type="checkbox"/> On-site <input type="checkbox"/> Face-to-face at office <input type="checkbox"/> Telephone <input type="checkbox"/> E-mail	Immaculee Habiyaambere Natural Balance Rwanda	<ul style="list-style-type: none"> • Project design document; • Baseline; • Application of methodology; • Eligibility criteria; • Environmental impact; • Stakeholder consultations; • Contribution to sustainable development;



/46/	2012-03-27	Janvier Kabananiye Rwanda DNA	<ul style="list-style-type: none"> • GHG calculations; • Monitoring plan; • Project's contribution to sustainable development; • Environmental impacts; • Stakeholder consultation; • Barrier analysis; • Compliance with regulation; • Project additionality; • Monitoring of sustainable indicators.
	<input checked="" type="checkbox"/> On-site <input type="checkbox"/> Face-to-face at office <input type="checkbox"/> Telephone <input type="checkbox"/> E-mail		
/47/	2012-03-26	Claudine Uwineza Vice Mayor Kamonyi District	<ul style="list-style-type: none"> • Project implementation, contribution to sustainable development; • Barriers faced by the project; • Benefits other than GHG emission reduction.
	<input checked="" type="checkbox"/> On-site <input type="checkbox"/> Face-to-face at office <input type="checkbox"/> Telephone <input type="checkbox"/> E-mail		
/48/	2012-03-27	Alexis Bienvenue Gahenda Natural Balance Rwanda	<ul style="list-style-type: none"> • Project implementation; • Barriers faced by the project; • Benefits other than GHG emission reduction; • Monitoring; • Data handling.
	<input checked="" type="checkbox"/> On-site <input type="checkbox"/> Face-to-face at office <input type="checkbox"/> Telephone <input type="checkbox"/> E-mail		

3.3 Closing out of validation findings

The objective of this phase of the validation was to resolve any issues which needed be clarified prior to DNV's conclusion on the PoA's compliance with applicable CDM requirements. In order to ensure transparency a validation protocol was customised for the project. The protocol shows in a transparent manner the criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

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

The validation protocol consists of four tables. The different columns in these tables are described in the figure below. The completed validation protocol for the project activity "Heat Retention Cooking in Less Developed Countries" in Rwanda is enclosed in Appendix A to this report.



Table 2 of the validation protocol documents the findings of the desk review of the project design documentation and follow-up interviews with project stakeholders. Any findings raised in Table 2 are listed in Table 3 of the protocol, and changes to the description of the project design as a result of these findings are addressed in Table 3. Table 2 thus may not reflect all aspects of the project as described in the final PoA-DD submitted for registration.

A corrective action request (CAR) is raised if one of the following occurs:

- (a) The project participants have made mistakes that will influence the ability of the PoA to achieve real, measurable additional emission reductions;
- (b) Applicable CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A forward action request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of CPAs of the PoA. FARs shall not relate to the CDM requirements for registration.

The validation identified five CARs, ten CLs and no FARs. The CARs and CLs were satisfactorily addressed by the project participants by among other revising the PoA-DD (please refer to Table 3 in Appendix A for further details). In addition to the changes made to the PoA-DD as a result of the validation findings, the following changes to the PoA-DD (version 03 of 15 March 2013) were made compared to the version of the PoA-DD published for stakeholder comments (version 01 dated 27 February 2012):

- The validation started under the VVM track and subsequently transferred the VVS track;
- The PoA-DD and CPA-DD version 01 applied the VVM project design document template, but were then transferred to the VVS template;
- The project originally demonstrated additionality through a barrier analysis, but then selected to apply the guidelines for the demonstration of additionality for small scale project published during EB68 (application of positive list);
- The baseline study was substantially revised: a new survey was performed throughout the host country by a professional third party to comply with UNFCCC requirements on representativeness;



Validation Protocol Table 1: Mandatory Requirements for CDM programme of activities (PoA)		
Requirement	Reference	Conclusion
The requirements the PoA must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (OK) or a corrective action request (CAR) if a requirement is not met.

Validation Protocol Table 2: Requirement Checklist				
Checklist question	Reference	Means of verification (MoV)	Assessment by DNV	Draft and/or Final Conclusion
The various requirements in Table 1 are linked to checklist questions the PoA should meet. The checklist is organised in different sections, following the logic of the PoA-DD	Gives reference to documents where the answer to the checklist question or item is found.	Means of verification (MoV) are document review (DR) , interview (I) or any other follow-up actions (e.g., on site visit and telephone or email interviews) and cross-checking (CC) with available information relating to projects or technologies similar to the proposed CDM PoA under validation.	The discussion on how the conclusion is arrived at and the conclusion on the compliance with the checklist question so far.	OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. A corrective action request (CAR) is raised when project participants have made mistakes, the CDM requirements have not been met or there is a risk that emission reductions cannot be monitored or calculated. A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. A forward action request (FAR) during validation is raised to highlight issues related to project implementation that require review during the first verification of the project activity.

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Corrective action and/or clarification requests	Ref. to checklist question in table 2	Response by project participants	Validation conclusion
The CARs and/ or CLs raised in Table 2 are repeated here.	Reference to the checklist question number in Table 2 where the CAR or CL is explained.	The responses given by the project participants to address the CARs and/or CLs.	The validation team's assessment and final conclusions of the CARs and/or CLs.

Validation Protocol Table 4: Forward Action Requests		
Forward action request	Ref. to checklist question in table 2	Response by project participants
The FARs raised in Table 2 are repeated here.	Reference to the checklist question number in Table 2 where the FAR is explained.	Response by project participants on how forward action request will be addressed prior to first verification.

Figure 1: Validation protocol tables



3.4 Internal quality control

The validation report underwent a technical review performed by a technical reviewer qualified in accordance with DNV's qualification scheme for CDM validation and verification.

3.5 Validation team

<i>Role</i>	<i>Last Name</i>	<i>First Name</i>	<i>Country</i>	<i>Type of involvement</i>						
				Desk review	Site visit / Interviews	Reporting	Supervision of work	Technical review	TA 3.2 competence	TA 14.1 competence
Team leader (Validator)	Feller	Francesca	Italy	✓	✓	✓			✓	
Expert	Little	Grant	South Africa	✓		✓				✓
Technical reviewer	Espejo	Andres	Italy					✓		✓
Person with sectoral competence assisting technical reviewer	Tenderini	Giovanni	Italy					✓	✓	

The qualification of each individual validation team member is detailed in Appendix C to this report.



4 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

The final validation findings relate to the PoA design as documented and described in the PoA-DD, version 03 dated 15 March 2013.

4.1 Comments by Parties, stakeholders and NGOs

The PoA-DD, version 01 dated 27 February 2012 was made publicly available on the CDM website and Parties, stakeholders and NGOs were through the CDM website (<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/BN2SV3KJCTJ5VW13047UBGCRE06S5F/view.html>) invited to provide comments during a 30 days period from 28 February 2012 to 28 March 2012.

No comments were received /32/.

4.2 Approval, authorization and contribution to sustainable development

The coordinating/managing entity of the PoA is Natural Balance International Ltd, registered in the United Kingdom but hosted by Rwanda, which is the entity that communicates with the Board. In addition, a consulting organization, ABHAssociates Ltd, will provide specialist support to NBI, in respect of technical carbon-related aspects of the programme implementation such as annual monitoring reports, communication with DOEs, and sharing communication with the EB.

The project participants are Natural Balance International Ltd of the United Kingdom (but hosted by Rwanda), and ABHAssociates Ltd of the United Kingdom. The host Party (Rwanda) and the Annex I Party (the United Kingdom) meet all relevant participation requirements.

A letter of approval (LoA) /19/ was issued by DNA of Rwanda on 9 July 2012, authorizing Natural Balance International (NBI) as project participant and confirming that the project assists in achieving sustainable development. The DNA of the United Kingdom issued the LoA /20/ on 18 September 2012 and authorized ABHAssociates Ltd from the United Kingdom as project participant.

The coordinating/managing entity has obtained a letter of authorization of its coordination of the proposed CDM PoA from the host Party /19/.

The letters of approval were received from the project participants, however DNV was in copy in the email communication exchange between Rwanda's DNA and the project participant in relation to a correction to be made to the project name in the document, and for this reason has no reason to doubt the authenticity of the LoA received from Rwanda's DNA. Moreover, DNV cross-checked the issuance of the UK DNA against the list of approved project published on the DNA's website /43/, and has no reason to doubt the authenticity of the LoA. DNV considers the letters are in accordance with paragraphs 39-42 of the VVS /21/.



4.3 Modalities of communications

DNV has performed due diligence on the Modalities of Communications (MoC) statement submitted by the project participants in accordance with applicable requirements in the VVS as documented in section A.4 of Table 2 in the validation protocol in Appendix A to this report. DNV was able to confirm the information contained in the MoC and that the MoC complies with all relevant forms and requirements.

4.4 PoA design and description of each generic CPA

The programme's spatial boundaries are clearly indicated, and consist of the kitchens to which Wonderbags are registered under the CPAs included in this PoA. These will be located within the geographical borders of the national boundaries of the Host Parties subscribing to this PoA. The CME plans to add Host Parties progressively during the lifetime of the PoA, on the basis of LoAs granted to the CME and on the basis of formal procedures for addition of host countries. At the time of validation, the only Host Party involved in the PoA is Rwanda, and therefore the kitchens comprising the physical boundary of this PoA are within the geographical boundary of the Republic of Rwanda. The PP has confirmed in the PoA-DD that all national and sectoral policies and regulations applied by the Government of Rwanda are taken into consideration, which was confirmed by DNV based on the interview held with the Rwandan DNA /46/. Each country may host more than one CPA: in this case the CPA will be chronological, i.e. consisting of a particular distribution taking place at one point in time /44//45/. System boundaries consist of heat-retention cooking (HRC) devices.

The framework developed for the implementation of the PoA, and for defining CPA under the PoA is clearly described in the PoA-DD, and was confirmed through interviews with the project participants /44//45/.

The proposed programme consists of a type II activity, in that it involves energy efficiency measures. For this reason, in order to qualify as SSC CDM project activities, each CPA needs not exceed reductions in energy consumption by up to the equivalent of 60 GWh per year /29/, or 180 GWh_{thermal}/year in aggregate, in all years of the crediting period. Eligibility of CPAs as SSC project activities is addressed through eligibility criteria for inclusion under the PoA. Each CPA will demonstrate eligibility based on emission reduction and energy savings projections, as well as by the calculations available at the time of inclusion. Moreover, the PP has submitted emission reduction calculations for a typical CPA /3/, indicating the maximum number of units that can be distributed in order for the CPA to comply with this limit.

De-bundling is also addressed by the programme through eligibility criteria for inclusion. In fact, one criterion states: each individual device disseminated by the CPAs has an energy saving which is less than 1% of the SSC threshold for this type of project, which is 1.8 GWh_{thermal}/year. This is in line with the requirements on de-bundling set in paragraph 10 of the Guidelines on assessment of debundling for SSC project activities /31/. The starting date of the PoA is 27 February 2012, which coincides with date of commencement of validation process as marked by start of the Global Stakeholder Process /32/. The length of the PoA is 28 years, which coincides with the maximum duration of the crediting period for a PoA. Both the starting date and the length of the PoA are in accordance with the requirements of the Project Standard /22/.



The PoA-DD provides the technical characteristics of a Wonderbag, in a way that is verifiable for the purpose of inclusion of CPAs in the PoA. The WB consists of a filling of insulation material, sown into a cotton lining. The device consists of two components, a bag, and an insulation lid. A draw-string is incorporated into the design, to allow the bag to be sealed over the insulation lid. Two materials are used by NB to fill the bags: either polyurethane foam or expanded polystyrene granules, depending on factors such as supply availability and logistics. The specifications are provided in the two supporting documents Specifications for WB1 and Specifications for WB2, which have been submitted to DNV /5//17/. The technical specifications include the quantity of insulation material contained in each bag (expressed in weight), dimensions and labeling requirements. Training, capacity-building, technical support to Wonderbag manufacturers and CPA implementers is included in the roles and responsibilities of the CME, as clearly indicated in the PoA-DD.

The accuracy and completeness of the project description was verified through a site visit, which included interviews with the project participants as well as with local stakeholders. DNV considers the project description of the project contained in the PoA-DD to be complete and accurate. The PoA-DD complies with the relevant forms and guidance for completing the CDM-SSC-PoA-DD.

4.5 Demonstration of additionality for PoA

According to the PoA-DD, there is no law, policy or mandatory requirement in the specified LDCs stipulating the adoption of heat retention cookers. This was confirmed by representatives of the host party /46/, with whom the regulatory framework and political aspiration of Rwanda in terms of energy, natural resources conservation, and health and safety standards was discussed during the site visit.

4.6 Demonstration of additionality of each generic CPA

The demonstration of additionality by CPAs will be assessed through eligibility criteria for inclusion. In fact, a typical CPA is automatically additional according to paragraph 2.c of the guidelines on the demonstration of additionality of small-scale project activities /30/, if it is “solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds”. Calculations have been submitted showing that each unit is within that limit /3/, and a restriction of the target groups identified in the PoA-DD, namely domestic, commercial, institutional cooks, either rural or urban or both, using fossil fuels and grid electricity for cooking, are in accordance with the requirements of the guidelines.

4.6.1 Barrier analysis

The project demonstrates additionality based on the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds, indicated in the guidelines on the demonstration of small-scale project activities /30/. No barrier analysis has therefore been undertaken.



4.6.2 Common practice analysis

The project demonstrates additionality based on the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds, indicated in the guidelines on the demonstration of small-scale project activities /30/. No common practice analysis has therefore been undertaken.

4.6.3 Additionality - Conclusion

The demonstration of additionality of typical CPAs to be included to the PoA is in accordance with section A of the “Standard for demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities” /26/, and it is demonstrated that in the absence of CDM, none of the CPAs would occur.

The following eligibility criteria (refer to section 4.7 for the complete list of eligibility criteria) ensure that a CPA meets the conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality as described above.

The CPA will demonstrate the following conditions in order to confirm that it could not occur without the PoA being in place:

- The CPA limits user distribution to households, communities or Small and Medium Enterprises (SMEs) as per paragraph 2.c of Annex 27 of EB 68
- The technology deployed in the CPA complies with the specification of section A.6. of the POA-DD. This confirms the physical dimensions of the Wonderbags and therefore their maximum energy saving capacity.
- Each Wonderbag user will save less than 9 GWh_{th} /year representing 5% of the small-scale threshold as per paragraph 2.c of Annex 27 of EB 68.

4.7 Eligibility criteria for including CPAs to the PoA

The programme establishes eligibility criteria for inclusion of a project as a CPA under the PoA. The eligibility criteria have been validated against the *Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities*”, version 01.0 /24/ as follows:

- (a) The Wonderbags included in the CPA will be distributed within the geographical boundary as specified in section A.5 of this POA. This criterion can be verified by checking that a CPA implementation arrangements apply exclusively to distribution within the geographical boundaries defined in the PoA-DD defined in section A.5. This criterion is considered adequate to ensure that “the geographical boundary of the CPA including any time-induced boundary [is] consistent with the geographical boundary set in the PoA” /24/;
- (b) Double counting of emission reductions shall be prevented in each CPA through an effective Wonderbag identification system. CPAs have an identification system consisting



of labelling each Wonderbag with a Wonderbag logo and serial number which is represented on the Wonderbag User Database. This criterion will ensure that no double counting occurs within the PoA;

- (c) Each CPA shall specify the level and type of service of the Wonderbags, and provide performance specifications in compliance with suitable sampling survey protocols. Verification of eligibility will consist of checking whether CPAs disseminate Wonderbags which comply with the technical description and minimum specifications defined in Section A6 of the PoA-DD. This criterion is in line with the requirements for “the specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications” /24/;
- (d) The CPA shall have a start date of 1 March 2012, this being subsequent to start of the GSC, or date of first adoption of a Wonderbag, whichever is later. The starting date can be verified by checking that CPAs are collectively characterized by supporting documents which include (a) financing agreements on which the project launch was contingent, dated prior to this date and (b) distribution database (Wonderbag user Database) which demonstrates that all Wonderbag adoptions take place after this date. This eligibility criterion satisfies the requirement for “Conditions to check the start date of the CPA through documentary evidence” /24/;
- (e) The CPA-DD shall comply with the applicability and other requirements of the applicable methodology AMS II.G v3. This is verified by establishing whether CPAs are compliant with eligibility criteria (c), (k) and (n), since this results in CPA complying with the applicability and other requirements of the applicable methodology AMS II.G v3. This criterion ensures compliance with the requirement for “Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs” /24/;
- (f) The CPA will demonstrate the following conditions in order to confirm that it could not occur without the PoA being in place:
 1. The CPA limits user distribution to households, communities or Small and Medium Enterprises (SMEs) as per paragraph 2.c of Annex 27 of EB 68
 2. The technology deployed in the CPA complies with the specification of section A.6. of the POADD. This confirms the physical dimensions of the Wonderbags and therefore their maximum energy saving capacity.
 3. Each Wonderbag user will save less than 9GWh_{th} /year representing 5% of the small-scale threshold as per paragraph 2.c of Annex 27 of EB 68

This criterion is considered adequate to establish “the conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality” /24/;
- (g) Local stakeholder consultations and environmental impact analysis is undertaken at PoA level and therefore this criterion is not applicable;
- (h) No funding from Annex I parties, if any, results in a diversion of official development assistance. The CPA implementer will confirm that there is no funding from Annex I parties. In case there is funding from Annex I parties the Annex I party will confirm that this does not result in a diversion of official development assistance./24/;
- (i) The target group(s) of the CPA are one, or more than one, of the following: households, communities or SMEs using wood-fuel for cooking. Eligibility for inclusion can be verified by confirming that CPAs are consistent with the target groups defined by the PoA-DD, namely households, communities or SMEs using wood-fuel for cooking. This is demonstrated in the CPA-DD monitoring plan. The target groups identified ensure



compliance with the requirement for “where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)” /24/;

- (j) The CPA monitoring plan shall include sampling and survey approaches consistent with the relevant standard from the Board and the applied methodology. In order to demonstrate eligibility, CPAs need to concur with the applicable methodology AMS II.G v3 and the “*Standard for sampling and surveys for CDM project activities and Programme of Activities*”, Version 3 (EB 69, Annex 4), and reflect the sampling plan as described at PoA level. Through this criterion, the CME addresses the requirements for “where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys” /24/;
- (k) The CPA shall in aggregate meet the small-scale threshold criteria and shall remain within that threshold criteria of 180 GWh/year and shall remain within that threshold throughout the crediting period of the CPA. Verification of the eligibility of a CPA will consist in determining whether the CPAs save less than 180 GWh_{thermal}/year in aggregate, in all years of the crediting period as demonstrated in the Wonderbag User Database (WD). The criterion complies with the requirement for “where applicable, the conditions that ensure that every CPA in aggregate meets the small-scale or microscale threshold criteria and remains within those thresholds throughout the crediting period of the CPA” /24/;
- (l) The individual devices disseminated by the CPA have an energy saving which complies with the approved Guidelines on assessment of debundling for SSC project activities. This can be verified by checking whether each individual device disseminated by the CPAs has an energy saving which is less than 1% of the threshold specified for the CPA which is 1.8 GWh_{thermal}/year to be demonstrated by submitting relevant calculations. This criterion is sufficient to satisfy the requirement for “where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories” /24/;
- (m) The CPA is located in a country classified by the UN as a LDC, where biomass cooking fuel is not 100% demonstrably renewable, and where there exist indicators of NRB. Verification will consist of checking whether the CPA is located in a LDC and:
 - DRB as defined by the applied methodology is not 100%;
 - Evidence exists of at least two of the following indicators of NRB (a) increased time spent or distance travelled for gathering fuel-wood, (b) information on depletion of carbon stocks, (c) increasing price of fuel-wood, (d) trends in types of cooking fuel used, indicating scarcity of woody biomass. Rwanda demonstrates at least two of these indicators. Evidence shall also be provided that the trends identified are not occurring due to the enforcement of local/national regulation.

Through this eligibility criterion, the CME ensures that the requirements set in the methodology in relation to the assessment of the fraction of non-renewable biomass are met by CPAs;
- (n) Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics. This is verifiable by confirming that CPAs are all in countries where non-renewable biomass has been used since 31 December 1989, as demonstrated in the CPA-DD. Such criterion aims to ensure that CPA meets the applicability criterion of the methodology related to the use of non-renewable biomass.



The eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

The eligibility criteria for including CPAs are in accordance with section B of the “Standard for demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities” /26/.

4.8 Application of methodologies

CPAs under this programme will apply one methodology only, AMS-II.G. version 03. This requirement has been included in the list of eligibility criteria for inclusion.

4.9 Management system of the PoA

The authority and responsibility for the overall programme management is clearly described: the CMEAs are responsible for record-keeping on a continuous basis, in compliance with the monitoring plan of the PoA-DD and CPA-DD, albeit with direction, supervision and guidance from the CME. The CME provides a central control process over-seeing all documents and records issued by the CMEAs. Moreover, the CME is responsible for the deployment of senior level staff with experience of international project management and CDM procedures, with competencies for effectiveness in the roles listed in the PoA-DD.

The CME is also responsible for training, capacity-building, and technical support to Wonderbag manufacturers and CMEAs, as well as vetting of CMEAs and new CPAs to eliminate risk of double-counting and ensure compliance with eligibility requirements and direct supervision and control of all CMEA operations and all CPA operations, including control of documentation and serial numbers.

Quality control and supervision of record-keeping such as Wonderbag User DataBase (WUD), and continuous improvement of the PoA management system are likewise managed by the CME.

Arrangements for training and capacity development for personnel have been likewise recorded in the PoA-DD: CME staff will be provided with training, and in turn CME will provide training to the staff of the CMEA who are responsible for the operation of the CPAs to ensure their ability to comply with all aspects of the PoA’s requirements.

Moreover, the CME has developed a procedure for the technical review of the inclusion of CPAs, consisting of a due diligence exercise performed before a contractual agreement between the CME and the CMEA, as well as a procedure to avoid double counting based on a system of unique serial numbers to be recorded in the WD. Serial numbers will also be the basis for the records and documentation control process for CPAs to be included in the PoA.

Lastly, the CME plans to periodically review the management system of the PoA to ensure that there is a continuous improvement in its efficiency.



The management system of the proposed PoA is in accordance with the “Standard for demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities” /26/. At the time the site visit was performed, the Wonderbag users database for this PoA was not yet in place. However, DNV was able to verify the information in the PoA through interviews with the CME, as well as with the implementer of the first CPA /44//45/. The CME is successfully managing the distribution and issuance of carbon credit for a largely similar programme, where the same technology is distributed to electricity users in South Africa. The CME is therefore able to apply part of the experience gained to the proposed PoA, including successful aspects of the operations, data collection and management, and monitoring. Hence, DNV confirmed that the management system described in the PoA-DD is accurate.

4.10 Environmental impacts

The assessment of environmental impacts is performed at PoA level. The decision has been justified based on two reasons:

- the confirmation that host country requirements for the assessment and mitigation of environmental impacts will take place within the procedure for approval of the project activity for each of the host parties involved in the programme. Approval by host parties will be addressed at PoA level;
- The interaction between technology and the local environment, in which it is used, is the same in each country and each CPA, since the same technology will be distributed as part of all CPAs.

The justification provided is considered acceptable.

An analysis of environmental impacts has been performed by the PP and is presented in the PoA-DD. The analysis covered the emissions of greenhouse gases, deforestation, local air pollution, waste and biodiversity loss. Only waste was identified to potentially have a negative impact on the environment, with all other environmental aspects being positively impacted by the implementation of the PoA. To address the potential negative impact of the WB filling material being accidentally dispersed into the environment, CPAs under the POAs will include arrangements for recovery of these materials.

In the case of Rwanda, a Letter of Approval has been provided as evidence that national requirements regarding the analysis of environmental impacts have been complied with.

DNV interviewed a representative of the Rwandan DNA, who confirmed that there are no laws mandating the performance of an Environmental Impact Assessment (EIA) for the project activity. Clarifications were requested by the DNA to the project participant regarding the handling of waste generated by the project activity. The PP satisfactorily responded to the clarifications requested as part of the LoA application process, agreed to provide cash payments to ensure full recovery and recycling, and as a result received the LoA from the Rwandan DNA.



The DNA of each host country will assess whether national regulation and requirements related to the assessment of environmental impacts have been satisfactorily complied with when considering to provide a LoA for the PoA implementation via CPAs in that country. Therefore, conditions related to undertaking a local impact analysis is dealt with the eligibility criterion mandating that the Wonderbags included in a CPA will be distributed within the geographical boundary specified in the PoA-DD, since the annexation of host parties is based on the granting of a letter of approval. For this reason, the environmental impacts will have to be validated as part of a possible expansion of the PoA to another country, i.e. as part of a Post-Registration Change.

4.11 Local stakeholder consultation

The consultation of local stakeholders will be undertaken at PoA-level, and will be applicable to all CPAs taking place in the same country. For this reason, the local stakeholder consultation will have to be validated as part of a possible expansion of the PoA to another country, i.e. as part of a Post-Registration Change.

In the case of Rwanda, the local stakeholder consultation was conducted in two phases: a public meeting held on 22 November 2011 in the Eastern province, and interviews with randomly selected users who had been involved in the pilot trial /2/ /48/.

DNV interviewed two people who had been present to the meeting /48//47/, and was shown a video taken during the LSC meeting as well as copies of several invitations sent to relevant institutional stakeholders, i.e. the ministry of Agriculture /6/, the Ministry of Gender and Family Promotion /7/, the Mayor of the Kamonyi district /9/, the Ministry of Lands, Environment, Forests, Water and Mines /10/, the Ministry of Infrastructures /11/ and the Rwandan DNA /17/, as well as to information agencies such as the Rwandan Office of Information /8/ and the New Times /12/. Moreover, it received confirmation from the DNA of the Host Country that stakeholder consultation is not regulated by law /46/. Hence, DNV confirmed that appropriate media was used in order to invite relevant stakeholders.

A summary of the comments received is provided in the PoA-DD, which also indicates how the comments received were taken into account in the project design.

DNV considers the local stakeholder consultation carried out adequately.

4.12 Application of selected baseline and monitoring methodology(ies) by each generic CPA

CPAs under this PoA apply AMS-II.G. version 03. The applicability of this methodology to the proposed project activity has been validated as follows:

- A typical CPA comprises appliances involving the efficiency improvements in the thermal applications of non-renewable biomass. The Wonderbag results in efficiency



improvements in the thermal applications, as confirmed by the calculation of emission reductions submitted /3/, where the amount of biomass used in the baseline is 3.23 tonnes per user per year, while the amount of biomass used in the project scenario is 1.36 tonnes per user per year;

- The project participants is able to show that non-renewable biomass has been used since 31 December 1989 in Rwanda, using survey methods or referring to published literature, official reports or statistics.

The assessment of the generic CPA's compliance with the applicability criteria of AMS-II.G. (version 03) are documented in detail in section B.2 of Table 2 in the validation protocol in Appendix A to this report.

The following eligibility criteria (refer to section 4.7 for the complete list of eligibility criteria) ensure that a CPA meets the conditions that ensure that CPAs meet the requirements pertaining to the application of the selected baseline and monitoring methodology by each generic CPA as described above.

- The CPA-DD shall comply with the applicability and other requirements of the applicable methodology AMS II.G v3
- Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics

4.13 Project boundary of each generic CPA

The CPA is within the geographical boundaries of the PoA, in that Rwanda is listed in section A.4.1 of the PoA-DD. The CPA system boundaries consist of the kitchens in which Wonderbags are used. This is clearly defined in the PoA-DD.

Source	GHGs involved	Description
<i>Baseline emissions</i>	CO ₂	Use of fossil fuels for meeting similar thermal energy needs.
<i>Project emissions</i>	CO ₂	Methodology AMS-II.G (version 03) only requires calculating emission reductions through saved biomass ($B_{y,savings}$), without specifically require calculating project emissions.
<i>Leakage</i>	N/A	Leakage has been taken into account with a default value for the net to gross adjustment factor.

The identified boundary and selected sources and gases are justified for the project activity. The validation of the project activity did not reveal other greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed project activity which are expected to contribute more than 1% of the overall



expected average annual emission reduction, which are not addressed by AMS-II.G. (version 03).

4.14 Baseline scenario identification and description for each generic CPA

Each CPA under this PoA will use methodology AMS-II.G. version 03. This is the most recent valid version available on the UNFCCC website at the time of validation.

Since the PoA only accepts CPAs that apply the indicative simplified methodology AMS-II.G, the baseline scenario for all CPAs is the one indicated by this methodology, i.e. “In the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs”.

The baseline described in the PoA-DD complies with the requirements of the methodology, as the energy baseline is the existing level of consumption of non-renewable biomass, used by the cooking systems currently in use and which is used in the absence of the project activity.

The approved baseline methodology has been correctly applied to identify a complete list of realistic and credible baseline scenarios, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed CDM project activity.

All the assumption and data used by the project participants are listed in the PoA-DD and/or supporting documents. All documentation relevant for establishing the baseline scenario and correctly quoted and interpreted in the PoA-DD. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable. Relevant national and/or sectoral policies and circumstances are considered and listed in the PoA-DD.

4.15 Algorithms and/or formulae used to determine emission reductions of each generic CPA

4.15.1 Explanation of methodological choices

Baseline emissions:

The quantity of woody biomass used in the absence of the project activity is determined *ex-ante* through a baseline and kitchen performance field test, which was been performed during the project validation.

The PP commissioned to the universities of Oxford and Kigali a combined baseline survey and KPT /15/, which was carried out between 23 April 2012 and 15 May 2012, and was designed to satisfy the requirements of the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (Version 03.0), and of the Guidelines for sampling and surveys for CDM project activities and programme of activities, version 02.0 /25//25/, as well as of the methodology. The KPT measured the quantities of wood-fuel (both firewood and charcoal), used in households using a Wonderbag, and also in the same households not using the Wonderbag over an identical period in equal conditions, so deriving a fuel-saving value for each pair. For the purpose of determining B_{old} and estimating B_{new} across different fuel users, a ratio of charcoal to firewood of 6 was applied, sourced from the revised 1996 IPCC Guidelines /39/. The IPCC default value /39/ was used because more



conservative than the values identified by national literature (one dated 1991 /41/ which indicates a ratio of 5-10%, and one dated 2009 which indicates a ratio of 10% /42/.

The KPT protocol followed is the one provided in Annex 4 of the approved Gold Standard Foundation methodology Technologies and Practices to Displace Decentralized Thermal Energy Consumption /40/ and was run under direct-paired sampling conditions, as opposed to matched-pairing, meaning that each household carried out both phases of the test (with and without the Wonderbag). A number of precautions were incorporated in the test design in order to ensure the reliability of the results: no household was given free fuel to ensure normal eating patterns could be observed, and all participants were instructed, prior to the test, how to use the Wonderbag and were shown a demonstration.

Project emissions:

The annual quantity of woody biomass used during the project activity will be monitored based on the results of the KPT to be repeated annually. However, for the purpose of estimating emission reductions at validation stage, the PP used the results of the combined baseline survey and KPT carried out in April-May 2012 /15/.

Leakage emissions:

The project participant has selected to adjust the value for B_{old} (quantity of woody biomass used in the absence of the project activity) by the net to gross adjustment factor of 0.95 provided by the methodology to account for leakages in the use of non-renewable biomass. In this case, surveys are not required.

Moreover, CPAs also apply the leakage adjustment for the application of the methodology in the context of a PoA, and by applying default values provided by the methodology of 0.95.

Emission reductions:

Emission reductions are calculated as the quantity of woody biomass that is saved by the CPA in period y , times the fraction of non-renewable biomass, the net calorific value of the non-renewable woody biomass that is substituted, and the emission factor for the substitution of non-renewable woody biomass by similar consumers. This is in line with equation 1 of the methodology /27/. The quantity of woody biomass that is saved by each is estimated as the difference between baseline and project energy consumption determined through a Kitchen Performance Test (KPT), which corresponds to option 1 of the methodology.

Moreover, in order to meet the requirements set by the methodology regarding leakage adjustments (paragraphs 13 a and 23 c), and to account for cases where the WB has been distributed but is no longer in use, the PP has clarified that parameter $B_{savings}$ is calculated as Quantity of woody biomass used in the absence of the project activity corrected to account for the Leakage related to the non-renewable woody biomass saved by the project activity, and the leakage that needs to be considered if the methodology is applied in the context of a PoA. The value thus obtained for the energy consumption in the baseline is used to establish energy savings per WB, which are in turn corrected to account for the drop-off rate.



From the review of the methodological choices performed and of the ex-ante calculations of emission reductions, it can be concluded that:

- All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- All values used in the PDD are considered reasonable in the context of the proposed project activity;
- The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

The data sources mentioned have been verified by DNV, who can conclude that baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring methodology.

4.15.2 Parameters determined ex-ante

- L_{NRB} : in order to account for leakages in the use of non-renewable biomass, CPAs will apply the default factor provided in the baseline and monitoring methodology of 0.95;
- L_{PoA} : in order to account for the leakage adjustment for the application of the methodology in the context of a PoA, CPAs will apply the default factor provided in the baseline and monitoring methodology of 0.95;
- $EF_{projected_fossilfuel}$: the default value provided in the baseline and monitoring methodology of 81.6 tCO₂/TJ is to be applied by CPAs;
- B_{old} : the value of 3.23 tonnes/kitchen/year was determined as part of the baseline and kitchen performance field test performed in April-May 2012 /15/, which followed an internationally recognized KPT protocol /40/. The survey was conducted nationwide, and achieved a confidence/precision level of 95/10;
- $NCV_{biomass}$: the default value provided in the baseline and monitoring methodology of 0.015 TJ/tonne is to be applied by CPAs;
- $f_{NRB,y}$: for this parameter the PP selected the default value accepted by the DNA of 0.98% /32/.

Parameter B_{old} was determined based on sampling. The sample of users on which the KPT is based was selected to ensure the results were representative of regional variations in eating patterns and fuel consumption. The geographical scope of the study was Rwanda, to which the following stratification was applied: Urban; Peri-urban; and Rural.

The confidence/precision level targeted was 95/10, which is in line with the sampling requirements for PoAs indicated in the sampling standard /25/. In fact, a level of 8.8% precision at 95% confidence was achieved through 162 tests, of which 73 were performed on charcoal users, and 89 on firewood ones.

DNV reviewed the KPT design /15/, the data collected (the surveyors were university graduates with laptops, and they entered all field data directly into the excel formats prepared



for the survey /15/) and calculations produced by the authors /15/, and can conclude that the proposed sample size and sampling method is adequate to achieve the applicable confidence/precision requirements, that the sampling plan applied ensures that samples are randomly selected and are representative of the population targeted, and that the sampling plan has been implemented correctly. Hence, DNV is able to confirm the accuracy of the estimate of average fuelwood consumption.

4.16 Monitoring plan

The monitoring plan makes provisions to continuously record the following information:

- Numbers of WBs distributed to users each month;
- Serial number or equivalent: Allocation of unique serial number or CPA-specific permanent marking for each WB listed in the WD;
- Distributor: Names and phone numbers and locations of all WB distributors;
- Date or month of adoption: Detail of month and year in which quantities and serial numbers of WBs distributed to end-users, from which a conservative date-of-first-use is derived. The records will indicate a conservative date of first use of all WBs, the conservative assumption being made that first use is at the end of the month in which the WB is distributed at end-user level;
- Location, district or area of each distribution activity;
- Allocation of all WBs to a unique CPA;
- For a representative proportion of users, record of names and phone numbers (or address if no phone number available) and month the Wonderbag adopted. As a non-mandatory requirement entry also of day of adoption of a Wonderbag, determined as day a user takes possession (typically in a shop) plus 3 days; such dates can be used to calculate emission reductions in place of end-of-month dates.

The information collected is considered sufficient to ensure compliance with the requirement of the *Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities* for unique identifications of product and end-user locations for the purpose of preventing double counting of emission reductions.

In addition to the continuous monitoring of parameter N_w through the information listed above, the requirements of the methodology for monitoring fuel consumption, and for checking whether appliances are still operating, are complied with through monitored parameters B_{new} , and DOF, which are measured by means of annual KPT, and annual monitoring of the drop-off fraction based on a representative sample of users.

The monitoring plan is in compliance with the monitoring methodology AMS-II.G. (version 03). It is DNV's opinion, that the project participants are able to implement the monitoring plan.

4.16.1 Parameters monitored ex-post by each generic CPA

The following parameters will be monitored by a typical CPA:



- N_y : The number of users of Wonderbags in year y . This parameter will be monitored continuously by keeping the Wonderbag database updated with the information listed in section 4.16 above;
- $B_{y,new}$: this parameter will be monitored through a KPT conducted for a sample of used extracted from the Wonderbag database. The sampling approach adopted is simple random sampling, and the level of confidence/precision targeted in 95/10, in line with the requirements of the Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities version 3.0. The PP calculated the minimum sample size required to achieve the reliability required based on the mean savings of 5.1 kg/WB/day, and a squared coefficient of variation of 0.67 observed in the 2012 field test; The calculations produced a minimum sample of 255, which has been increased to 307 assuming a 20% level of non-compliance.
- DOF: to monitor this parameter, a sample of users will be selected through simple random sampling from the user database comprising all implemented CPAs combined. Information on whether the WB is still in use will be collected by visiting the person. The minimum sample size required to achieve the desired 95/10 confidence/precision level is 68. This was determined by applying equation 1 of the Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities version 3.0, and assuming an expected proportion of 85% expected proportion based on the PP experience (wonderbag distribution in South Africa, pilot studies performed in Rwanda prior to the beginning of validation). The minimum sample of 68 was increased to 100 assuming a 40% level of non-compliance.

that since the sampling will be conducted grouping CPAs, and this approach requires CPAs to be homogeneous, the PP has clarified in the PoA-DD as part of the sampling frame that CPAs will be grouped by host country and then maybe divided into smaller groups by CMEA or other factors at the discretion of the CME to ensure homogeneous sampling units.

The sampling plan described in the PoA-DD is in accordance with the requirements of the *Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities*.

4.16.2 Management system and quality assurance

The management system for the PoA is described in the PoA-DD. It lists the respective roles and responsibilities of the CME and of the CME agents, that will be bound by a contractual agreement to the CME for the implementation of individual CPAs.

Quality control and supervision of record-keeping such as Wonderbag User DataBase (WUD) fall under the responsibility of the CME, who will issue annual reports summarising user records together with results of annual monitoring surveys, for submission to verifying DOE. Wonderbag User Database (WUD) for each CPA is maintained by the CMEA, who is also in charge of the maintenance of records of all transactions and operations to facilitate tracking and quality assurance, data authentication, elimination of double-counting risks, cross-checks by auditors.

CME is also responsible for continuous improvement of PoA management system.



The frequency of registration, monitoring, measurement and reporting activities is indicated in the PoA-DD: the information relative to the number of bags distributed, and to the identity and contact details of the users is recorded continuously, while the information relative to the KPT and DOF is recorded annually at the time the tests and surveys are conducted.

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APPENDIX A

POA AND GENERIC CPA VALIDATION PROTOCOL

Table 1 Mandatory requirements for CDM programme of activities (PoA)

Requirement	Reference	Conclusion
About Parties		
1. The programme shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3.	Kyoto Protocol Art.12.2	OK
2. The programme shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC.	Kyoto Protocol Art.12.2.	OK
3. The programme shall have the written approval of voluntary participation from the designated national authority of each Party involved.	Kyoto Protocol Art. 12.5a, CDM Modalities and Procedures §40a	OK
4. The programme shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof.	Kyoto Protocol Art. 12.2, CDM Modalities and Procedures §40a	OK
5. In case public funding from Parties included in Annex I is used for the programme, these Parties shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties.	Decision 17/CP.7, CDM Modalities and Procedures Appendix B, § 2	OK
6. Parties participating in the CDM shall designate a national authority for the CDM.	CDM Modalities and Procedures §29	OK
7. The host Party and the participating Annex I Party shall be a Party to the Kyoto Protocol.	CDM Modalities §30/31a	OK
8. The participating Annex I Party's assigned amount shall have been calculated and recorded.	CDM Modalities and Procedures §31b	OK
9. The participating Annex I Party shall have in place a national system for estimating GHG emissions and a national registry in accordance with Kyoto Protocol Article 5 and 7.	CDM Modalities and Procedures §31b	OK
About Design of Programme		

Requirement	Reference	Conclusion
10. The CDM-POA-DD sets a framework for the implementation of the PoA and defines unambiguously a CPA under the PoA.	PoA Procedures § 6	OK
11. The coordinating/managing entity shall be identified.	PoA Procedures § 6 (a)	OK
12. The boundary for the PoA in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented is defined.	PoA Procedures § 6 (b)	OK
13. Eligibility criteria are defined for inclusion of a project activity as a CPA under the PoA, which shall include criteria for demonstration of additionality, and the type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility.	PoA Procedures § 6 (g)	OK
14. The length of the PoA is not exceeding 28 years.	PoA Procedures § 6 (h)	OK
15. The operational and management arrangements established by the coordinating/managing entity for the implementation of the PoA is described, including a description of a record keeping system for each CPA under the PoA, a system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as CDM project activity or as a CPA of another PoA, the provisions to ensure that those operating the CPA are aware and have agreed that their activity is being subscribed to the PoA.	PoA Procedures § 6 (i)	OK
16. The proposed statistically sound sampling method/procedure to be used by DOEs for verification of the amount of emission reductions achieved by CPAs under the PoA is described. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA there is a transparent system defined and described that ensures that no double accounting occurs and that the status of verification can be determined anytime for each CPA.	PoA Procedures § 6 (k)	OK
About small-scale project activities (if applicable)		
17. The proposed project activity shall meet the eligibility criteria for small scale	Simplified Modalities and Procedures	OK

Requirement	Reference	Conclusion
CDM project activities set out in § 6 (c) of the Marrakech Accords and shall not be a debundled component of a larger project activity.	for Small Scale CDM Project Activities §12a,c	
18. The proposed project activity shall confirm to one of the project categories defined for small scale CDM project activities and use the simplified baseline and monitoring methodology for that project category.	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22e	OK
19. If required by the host country, an analysis of the environmental impacts of the project activity is carried out and documented.	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22c	OK
About additionality		
20. Additionality of the programme as a whole is demonstrated because in the absence of the CDM (i) the proposed voluntary measure would not be implemented, or (ii) the mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region, or (iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation.	Kyoto Protocol Art. 12.5c, CDM Modalities and Procedures §43 PoA Procedures § 6 (e)	OK
21. It is demonstrated for the PoA and generic CPA that in the absence of CDM, none of the implemented CPAs would occur	PoA Standard § 7	OK
22. Additionality of a typical CPA is demonstrated through eligibility criteria for inclusion in the PoA.	PoA Procedures § 7 (g)	OK
About application of baseline and monitoring methodology		
23. The baseline and monitoring methodology shall be previously approved by the CDM Executive Board.	CDM Modalities and Procedures §37e	OK
24. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	CDM Modalities and Procedures §45c,d	OK
25. The baseline methodology shall exclude to earn CERs for decreases in activity	CDM Modalities and Procedures §47	OK

Requirement	Reference	Conclusion
levels outside the project activity or due to force majeure.		
26. The monitoring plan for a typical CPA is developed in accordance with the approved monitoring methodology, and identification of the monitoring provisions and data parameters a CPA has is to apply/monitor	PoA Procedures § 6 (j)	OK
27. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP.	CDM Modalities and Procedures §37f	OK
About forecast emission reductions		
28. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change.	Kyoto Protocol Art. 12.5b	OK
About environmental impacts		
29. Documentation on the analysis of the environmental impacts of the programme activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the programme participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	CDM Modalities and Procedures §37c	<input checked="" type="checkbox"/> Analysis at PoA level <input type="checkbox"/> Analysis at CPA level
About stakeholder comments		
30. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received.	CDM Modalities and Procedures §37b	<input checked="" type="checkbox"/> Analysis at PoA level <input type="checkbox"/> Analysis at CPA level
31. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available.	CDM Modalities and Procedures §40	OK

Requirement	Reference	Conclusion
Other		
32. The project design document shall be in conformance with the CDM-PoA-DD format.	CDM Modalities and Procedures Appendix B, EB Decision	OK

Table 2 Requirements checklist

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
PART I. Programme of activities (PoA)						
A General description of project activity						
A.1 Title of the PoA (PS § 31, VVS § 62-63)						
A.1.1	Does section A.1 of the PoA-DD include a clearly identifiable project title, version number of the PoA-DD and date of the PoA-DD?	/1/	DR	<input checked="" type="checkbox"/> Clearly identifiable title of the project activity <input checked="" type="checkbox"/> Version number of the PDD is included <input checked="" type="checkbox"/> Date of the PDD is included.		OK
A.1.2	Is the PoA-DD is in accordance with the applicable requirements for completing PoA-DD?	/1/	DR	<input checked="" type="checkbox"/> Yes The PoA-DD is in accordance with the applicable requirements for completing CDM SSC PoA-DD template version 01. However, during the site visit, the possibility of using the PoA-DD template version 02.0 for the rest of the validation was discussed. <i>CL1: The Project Participant is requested to clarify which PoA-DD template version has been selected.</i>	CL1	OK

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
A.2 Description of the PoA (VVS § 64-69, (PS § 138, VVS § 189 and VVS § 150-157 for small-scale project activities, as applicable)					
A.2.1 How was the design of the PoA assessed?	/1/	DR	<p><i>What type is the project?</i></p> <p><input checked="" type="checkbox"/> Project in existing facility or utilizing existing equipment(s)</p> <p><input type="checkbox"/> Project is either a large scale project or a small scale project with emission reductions exceeding 15 000 tCO₂e per year. In this case, a site visit must be performed.</p> <p><input type="checkbox"/> Project is a bundled small scale project, with each project in the bundle with emission reductions not exceeding 15,000 tCO₂e per year. In such case the number of physical site visits may be based on sampling, if the sampling size is appropriately justified through statistical analysis.</p> <p><input type="checkbox"/> The project is an individual small scale project activity with emission reductions not exceeding 15 000 tCO₂e per year. In this case, DOE may not conduct a physical site visit as appropriate.</p> <p><input type="checkbox"/> Greenfield project</p> <p><i>How was the design of the project assessed?</i></p> <p><input checked="" type="checkbox"/> Physical site inspection</p> <p><input checked="" type="checkbox"/> Reviewing available designs and feasibility studies</p> <p><i>If a physical site inspection is not undertaken, justify why no site visit was undertaken:</i></p>		OK

MoV = Means of Verification, DR= Document Review, I= Interview, CC= Cross-Checking

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
A.2.2	If a greenfield project, describe the physical implementation of the project when the validation was commenced.	/1/	DR	At the time of the site visit, no WB had yet been distributed as part of the programme (CPA01). A pilot project had been implemented which consisted in the distribution of some WB, with the purpose of investigating potential interest in end users.		OK
A.2.3	If physical site visits were performed based on sampling (only applicable for bundled small scale projects, each with emission reductions not exceeding 15 000 tCO ₂ e per year), justify the sampling through a statistical analysis:	/1/	DR	Not applicable: this is not a bundled small scale project. De-bundling is discussed later in this checklist.		OK
A.2.4	Does the PoA-DD and generic CPA-DD describe the framework for the implementation of the proposed CDM PoA and inclusion of CPAs under the PoA?	/1/	DR	The PoA-DD and generic CPA-DD describe the framework for the implementation of the proposed CDM PoA and inclusion of CPAs under the PoA.		OK
A.2.5	Does the PoA involve alteration of existing installations? If so, have the differences between pre-project and post-project activity been clearly described in the PoA-DD?	/1/	DR	The PoA does not involve an alteration of existing installations, since the cooking devices used in the baseline will still be used (even though to a lesser extent). This is clearly described in the PoA-DD.		OK
A.2.6	Does the PoA design engineering reflect current good practices?	/1/	DR	The devices utilised as part of this programme will deliver an improved performance in terms of energy efficiency compared to the baseline technology.		OK
A.2.7	Would the technology result in a significantly better performance than any commonly used technologies in the host country? Is any transfer of technology from any Annex-I Party involved?	/1/	DR	The devices utilised as part of this programme will deliver an improved performance in terms of energy efficiency compared to the baseline technology. Although one of the project participants involved in the programme is from an Annex-1 party (the United Kingdom), no technology transfer is involved, as the project technology has been designed specifically to		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				address the cooking needs of households in less developed countries.		
A.2.8	Does the PoA qualify as a small scale CDM project activity as defined in paragraph 6(c) of decision 17/CP.7 on the modalities and procedures for the CDM?	/1/ /29/	DR CC	<p>The proposed programme consists of a type II activity, in that it involves energy efficiency measures. For this reason, in order to qualify as SSC CDM project activities, each CPA needs not exceed reductions in energy consumption by up to the equivalent of 60 GWh per year /29/.</p> <p>Eligibility of CPAs as SSC project activities is addressed through eligibility criteria for inclusion under a PoA. Each CPA will demonstrate eligibility based on emission reduction and energy savings projections, as well as by the calculations available at the time of verification.</p>		OK
A.2.9	Is the small scale project activity a debundled component of a larger project activity in accordance with the rules defined in appendix C of the simplified modalities and procedures for small-scale CDM project activities?	/1/	DR	As part of the demonstration of eligibility for CPAs, each CPA needs to demonstrate that each device disseminated achieves energy saving which are less than 1% of the threshold specified for the CPA, i.e. 1.8 GWh _{thermal} /year and 0.6 GWh _{elec} /year.		OK
A.3 Programme Boundaries (VVS § 191-192) <i>Programme Boundaries are the limits and borders defining the GHG emission reduction project.</i>						
A.3.1	Are the programme's spatial boundaries (geographical) clearly defined?	/1/	DR	The programme's spatial boundaries are clearly defined in the PoA-DD, and consist of the geographical boundaries of LDCs listed in section A.4.1 of the PoA-DD.		OK
A.3.2	Are the programme's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	/1/	DR	The components used to mitigate GHGs consist of heat-retention cooking (HRC) devices. This is		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				clearly indicated in section A.2. of the PoA-DD.		
A.3.3	Do the programme boundaries take into consideration all applicable national and/or sectoral policies and regulations within the chosen boundary?	/1/	DR	The geographical scope of the project extends beyond the typical geographical scope of national and/or sectoral policies and regulations (i.e. national or regional geographical scope). For this reason, national and/or sectoral policies and regulations will have to be addressed at CPA level.		OK
A.3.4	Can each CPA under the PoA be clearly identified individually including spatial boundaries (geographical) clearly defined?	/1/ /44/ /45/	DR I	During the site visit it was explained to DNV that the spatial boundaries of each CPA will consist of the geographical boundaries of one of the countries included in the geographical boundaries of the programme. Each of the countries listed in section A.4.1 of the PoA-DD may host more than one CPA: in this case the CPA will be chronological, i.e. consisting of a particular distribution taking place at one point in time /44//45/. This is consistent with the geographical boundaries of a typical CPA described in the generic CPA-DD, which states that the CPA will take place within the geographical boundaries of one of the countries listed in the PoA_DD /1/.		OK
A.4 Participation and authorization (VVS § 38-52) <i>Referring to Part A.3 and A.4, Appendix 1 and 2 of the PoA-DD as well as the CDM glossary with respect to the terms Party, Letter of Approval, Authorization and Project Participant.</i>						
A.4.1	Do all participating Parties fulfil the participation requirements as follows:	/1/	DR	CAR1: <i>Not all countries listed as potential Host Parties of the CPAs have a DNA indicated on</i>	CAR1	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				<i>the UNFCCC website /32/.</i>		
		Rwanda (host)		County X	Country Y	
a) Party has ratified the Kyoto Protocol		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
b) Party has designated a Designated National Authority		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
c) The assigned amount has been determined		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
A.4.2	Do the letters of approval meet the following requirements?	/1/ /22/	DR	CAR2: <i>The proposed programme does not comply with the Project Standard in that the Letter of approval from the Annex I Party has not yet been submitted.</i> CAR3: <i>The LoA received from the DNA of Rwanda does not refer to the precise project activity title indicated in the PoA-DD.</i>	CAR2 CAR3	OK
		Rwanda (host)		County X	Country Y	
a) LoA confirms that Party has ratified the Kyoto Protocol		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
b) LoA confirms that participation is voluntary		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
c) The LoA confirms that the project contributes to the sustainable development of the host country?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	NA	NA	
d) The LoA refers to the precise project activity title		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
e) The LoA is unconditional with respect to (a) to (d) above		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
f) The LoA is issued by the respective Party’s DNA		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
g) The LoA was received directly by the DNA or the PP		<input type="checkbox"/> DNA	<input type="checkbox"/> PP	<input type="checkbox"/> DNA <input type="checkbox"/> PP	<input type="checkbox"/> DNA <input type="checkbox"/> PP	
h) In case of doubt regarding the authenticity of the letter of						

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
approval, describe how it was verified that the letter of approval is authentic						
A.4.3	Have all private/public project participants been authorized by an involved Party?	/1/	DR	See CAR2 and CAR3	CAR2 CAR3	OK
A.4.4	Has the coordinating/managing entity of the programme been identified?	/1/ /2/ /44/ /45/	DR CC	The CME has been identified in Natural Balance International. CPAs will be managed by a local operator contracted to the CME as the Natural Balance CDM Programme Activity Implementer (CI). In case the CI is not operational, the CME will take its place. This was confirmed by through interviews with the CME /44/ and the CI of CPA01 /45/.		OK
A.4.5	Has the coordinating/managing entity provided letters of authorization of its coordination of the PoA from each host Party?	/1/ /19/	DR	The coordinating/managing entity provided letters of authorization of its coordination of the PoA from the host Party of CPA01.		OK
A.5 Modalities of communications (VVS § 53-61)						
A.5.1	How has the corporate identity of all project participants and focal points included in the MoC, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories, been validated?	/1/ /17/	DR	<input checked="" type="checkbox"/> Directly checking evidence for corporate, personal identity and other relevant documentation; <input type="checkbox"/> Notarized documentation; <input type="checkbox"/> Written confirmation from the project participant or the coordinating/managing entity that submits to it the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate. If this case was selected, DNV has confirmed that: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> the MoC statement was received from a project participant with whom DNV has a contractual 		OK

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				relationship. <input type="checkbox"/> the official who submits the MoC statement to the DOE and the official who signed the written confirmation (if a different person) is/are duly authorized to do so on behalf of the respective project participant		
A.5.2	Has the MoC statement been correctly completed and duly authorized? Check that all three requirements listed in the next column are complied with.	/1/ /17/	DR	<input checked="" type="checkbox"/> The latest version of the form F-CDM-MOC has been used; <input checked="" type="checkbox"/> The information required as per the F-CDM-MOC, including its annex 1, is correctly completed; <input checked="" type="checkbox"/> The project participant's authorized signatories signing the F-CDM-MOC correspond to the project participant's authorized signatories included in F-CDM-MOC, annex 1.		OK
A.6 Public funding of the project activity (CDM Modalities and Procedures Appendix B § 2)						
A.6.1	In case public funding from Parties included in Annex I is used for the project activity, have these Parties provided an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties?	/1/ /16/	DR CC	The PoA-DD states that the PoA has not and will not receive public funding from Parties included in Annex I resulting in a diversion of official development. In support to this statement, the PP has submitted a declaration issued by the director of NBI, confirming the programme receives no ODA, but currently relies on private finance advanced in expectation of revenues from sales of CDM credits. In the future, the main source of revenue will be from sales of CDM credits.		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
A.7 Verification of CPAs (PoA procedure § 6 k)						
A.7.1	If case the coordinating /managing entity does not wish to have all CPAs verified, is there a description of the proposed statistically sound sampling method/procedure to be used by DOEs for verification of the amount of reductions of anthropogenic emissions by sources or removals by sinks of greenhouse gases achieved by CPAs under the PoA?	/1/	DR	With regards to the development of a sampling plan to be used by the DOE for verification, the PP foresees two options, from which to choose according to costs and feasibility: the procedure may either consist of a single-stage process which randomly samples kitchens across all the CPAs, or it may consist of a two-stage process whereby a sample of CPAs are randomly selected and within these, a random selection is made of kitchens. Both procedures are statistically sound and either one may be adopted by the CME for DOE verification.		OK
B Demonstration of additionality and development of eligibility criteria						
B.1 Additionality of the Programme of Activities (VVS § 195) <i>Assessment of the additionality of the PoA as a whole in accordance with the PoA standard</i>						
B.1.1	Has it been demonstrated that the programme is a voluntary coordinated action that would not be implemented in the absence of CDM?	/1/	DR	According to the PoA-DD, there is no law, policy or mandatory requirement in the specified LDCs stipulating the adoption of heat Retention Cookers. This proposed SSC-PoA is a voluntary action by the CME. <i>CL2:</i> <i>The Project Participant is requested to submit evidence in support to the additionality of the programme.</i>	CL2	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
B.1.2	If the programme is implementing a mandatory policy/regulation, has it been demonstrated whether the policy/regulation is being enforced? If it is enforced, has it been demonstrated that the programme will lead to a higher level of enforcement?	/1/	DR	<u>See CL2.</u>	CL2	OK
B.2 Additionality determination of each generic CPA (VVS § 101-129 and VVS § 158-161 for small-scale project activities, as applicable)						
B.2.1	What approach/tool does the PoA use to demonstrate additionality of each generic CPA? Is this in line with the methodology? In case of small-scale CDM project activities, is Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities applied considering also the “Non-binding best practice examples to demonstrate additionality for SSC project activities”.	/1/ /24/	DR CC	<p>Additionality of a small-scale CPA is demonstrated through eligibility criteria for inclusion.</p> <p>This is in accordance with the requirements of the <i>Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities.</i></p>		OK
B.2.2	Have the regulatory requirements correctly been taken into account to evaluate the project activity and the alternatives?	/1/	DR	The regulatory requirements depend on the CPA host country, and will be considered by individual CPAs.		OK
B.2.3	Is sufficient evidence provided to support the relevance of the arguments made?	/1/	DR	Evidence in support to the barrier analysis will be provided by each CPA.		OK
B.2.4	What is the additionality of each generic CPA mainly based on (Investment analysis or barrier analysis)?	/1/	DR	The demonstration of additionality will be mainly based on barrier analysis.		OK
Investment analysis (VVS § 117-123) <i>The list of questions below must be adjusted to the parameters in the investment analysis relevant to the project under validation. <u>All</u> input parameters need to be assessed.</i>						
B.2.5	Does each generic CPA or any of the remaining alternatives	/1/	DR	Not applicable: no financial analysis is performed		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
generate revenues apart from CDM? Is this reflected in the PoA-DD?				to demonstrate additionality. This is in accordance with the requirements of the Tool for the demonstration and assessment of additionality” version 05.2 applied.		
B.2.6	Do any of the alternatives to each generic CPA involve investment? Is this reflected in the PoA-DD?	/1/	DR	Not applicable.		OK
B.2.7	Is the choice of benchmark analysis, investment comparison or simple cost analysis correct?	/1/	DR	Not applicable.		OK
B.2.8	Is the benchmark/discount rate the latest available at the time of decision?	/1/	DR	Not applicable.		OK
B.2.9	What is the financial indicator? Is it on equity/project basis? Before/after tax? Is the financial indicator in correspondence with the benchmark?	/1/	DR	Not applicable.		OK
B.2.10	Are the underlying assumptions appropriate, e.g. what is considered as waste in the baseline is considered to have zero value?	/1/	DR	Not applicable.		OK
B.2.11	Does the income tax calculation take depreciation into account? Is the depreciation year in accordance with normal accounting practice in the host country?	/1/	DR	Not applicable.		OK
B.2.12	Is the time period of the investment analysis and operating time of each generic CPA realistic? Has salvage value been taken into account? Is working capital returned in the last year of operation?	/1/	DR	Not applicable.		OK
B.2.13	When a feasibility study report or similar approved by the government is used as the basis for the investment analysis: Can it be confirmed that the values used in the PoA-DD are fully consistent with the FSR and is the period of time between finalization of the FSR and the investment decision adequate?	/1/	DR	Not applicable.		OK
B.2.14	How was the amount of output (e.g. sales of electricity) assessed?	/1/	DR	<input type="checkbox"/> The plant load factor provided to banks and/or equity financiers while applying the project		OK

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Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
			activity for project financing, or to the government while applying the project activity for implementation approval <input type="checkbox"/> The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company) <input type="checkbox"/> Other approach. <i>Provide details on how the load factor was validated::</i> Not applicable.		
B.2.15 How was the output price (e.g. electricity price) assessed?	/1/	DR	<input type="checkbox"/> Cross-check against third-party or publicly available sources (e.g. invoices or price indices) <input type="checkbox"/> Review of feasibility reports, public announcements and annual financial reports related to the project and the project participants <i>Provide details on how the output price was validated:</i> Not applicable.		OK
B.2.16 How were the investment costs assessed? Were the data available and valid at the time of decision?	/1/	DR	<input type="checkbox"/> Cross-check against third-party or publicly available sources (e.g. invoices or price indices) <input type="checkbox"/> Review of feasibility reports, public announcements, contracts and annual financial reports related to the project and the project participants <i>Provide details on how the investment costs were validated:</i> Not applicable.		OK
B.2.17 How were the O&M costs assessed? Were the data available and valid at the time of decision?	/1/	DR	<input type="checkbox"/> Cross-check against third-party or publicly available sources (e.g. invoices or price indices) <input type="checkbox"/> Review of feasibility reports, public announcements and annual financial reports related to the project and the project participants		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				<i>Provide details on how the O&M costs were validated:</i> Not applicable.		
B.2.18	Describe the assessment of the other input parameters. Were the data available and valid at the time of decision?	/1/	DR	<input type="checkbox"/> Cross-check against third-party or publicly available sources (e.g. invoices or price indices) <input type="checkbox"/> Review of feasibility reports, public announcements and annual financial reports related to the project and the project participants <i>Provide details on how other input parameters were validated:</i> Not applicable.		OK
B.2.19	Was the financial calculation spreadsheet verified and found to be correct?	/1/	DR	Not applicable.		OK
B.2.20	Sensitivity analysis: Have the key parameters contributing to more than 20% of the revenue/costs during operating or implementation been identified? Has possible correlation between the parameters been considered?	/1/	DR	Not applicable.		OK
B.2.21	Sensitivity analysis: Is the range of variations is reasonable in the project context?	/1/	DR	Not applicable.		OK
B.2.22	Have the key parameters been varied to reach the benchmark and the likelihood of this to happen been justified to be small?	/1/	DR	Not applicable.		OK
Barrier analysis (VVS § 124-127)						
B.2.23	Are the barriers identified complimentary to a potential investment analysis? Does the barrier have a clear impact on the financial returns so that it can be assessed in an investment analysis? Each barrier is discussed separately.	/1/ /44/	DR I	It is claimed that a typical CPA will face financial barriers, due to its need for considerable grant and non-commercial finance. Such barrier has a clear impact on the financial returns so that it can be assessed in an investment analysis. However, such financial analysis will be location-specific, and it cannot therefore be		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				performed for a typical CPA.		
B.2.24	How were the <u>investment barriers</u> assessed to be real? Are the investment barriers substantiated by a source independent of the project participants?	/1/ /46/	DR I	The financial barrier was confirmed by the DNA of the host country of CPA01		OK
B.2.25	How does CDM alleviate the investment barriers?	/1/ /44/	DR I	The registration of the programme under the CDM will provide a revenue source over and above HRC sales revenue		OK
B.2.26	Is each generic CPA prevented by the investment barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/1/ /44/	DR I	The barrier prevents alternatives a) and b), while it does not prevent alternative c): Continuation of the current situation		OK
B.2.27	How were the <u>technological barriers</u> assessed to be real? Are the technological barriers substantiated by a source independent of the project participants?	/1/ /46/	DR I	The technological barrier claimed is the absence of this technology in modernised and convenient form, in the markets of the regions addressed by this POA. The technological barrier was confirmed by the DNA of the host country of CPA01		OK
B.2.28	How does CDM alleviate the technological barriers?	/1/ /44/	DR I	The registration of the programme under the CDM will provide a revenue source over and above HRC sales revenue		OK
B.2.29	Is each generic CPA prevented by the technological barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/1/ /44/	DR I	The barrier prevents alternatives a) and b), while it does not prevent alternative c): Continuation of the current situation		OK
B.2.30	How were the <u>barriers due to prevailing practise</u> assessed to be real? Are the barriers due to prevailing practise substantiated by a source independent of the project participants?	/1/	DR	It is claimed that a major barrier is habit and resistance to behavioural change. Despite financial savings and convenience associated with the HRC, people adhere to customary ways of cooking. The barrier due to prevailing practice was confirmed by the DNA of the host country of		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				CPA01		
B.2.31	How does CDM alleviate the barriers due to prevailing practise?	/1/	DR	The programme revolves around an intense, pervasive, and sustained effort to promote the product, initiate adoption of the product, and support its owners and users in developing new habits involving its regular use in their kitchens. This approach is needed because the attempt to disseminate regular usage of HRCs is an activity which is “first-of-its-kind”.		OK
B.2.32	Is each generic CPA prevented by the barriers due to prevailing practise and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/1/ /44/	DR I	The barrier prevents alternatives a) and b), while it does not prevent alternative c): Continuation of the current situation		OK
B.2.33	How were the <u>other barriers</u> assessed to be real? Are the other barriers substantiated by a source independent of the project participants?	/1/	DR	Not applicable: no other barriers are claimed for a typical CPA.		OK
B.2.34	How does CDM alleviate the other barriers?	/1/	DR	Not applicable: no other barriers are claimed for a typical CPA.		OK
B.2.35	Is each generic CPA prevented by the other barriers and at least one of the possible alternatives to the project activity is feasible under the same circumstances?	/1/	DR	Not applicable: no other barriers are claimed for a typical CPA.		OK
Common practice analysis (VVS § 128-130)						
B.2.36	What is the geographical scope of the common practice analysis? Is this justified?	/1/	DR	A common practice analysis has not been performed since the programme is a first-of-its-kind.		OK
B.2.37	What is the scope of technology and size (e.g. capacity of power plant) for the common practice analysis and how has this been justified?	/1/	DR	A common practice analysis has not been performed since the programme is a first-of-its-kind.		OK
B.2.38	What is the data source(s) used for the common practice analysis?	/1/	DR	A common practice analysis has not been performed since the programme is a first-of-its-kind.		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
B.2.39	How many similar non-CDM-projects exist in the region within the scope?	/1/	DR	A common practice analysis has not been performed since the programme is a fist-of-its-kind.		OK
B.2.40	How were possible essential distinctions between the project activity and similar activities assessed?	/1/	DR	A common practice analysis has not been performed since the programme is a fist-of-its-kind.		OK
B.2.41	What is the conclusion of the common practice analysis?	/1/	DR	A common practice analysis has not been performed since the programme is a fist-of-its-kind.		OK
Conclusion						
B.2.42	What is the conclusion with regard to the additionality of the project activity?	/1/	DR	A conclusion on the additionality of the project activity will be reached once relevant CAR/CLs are closed.		OK
B.3 Eligibility Criteria (VVS § 196) <i>Eligibility criteria to assess eligibility of CPAs to be included to PoA.</i>						
B.3.1	Are the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA?	/1/	DR	The first of the eligibility criteria for inclusion requires that the CPAs requesting inclusion are within the geographical boundary defined by the PoA-DD. CPA will demonstrate eligibility by demonstrating that the CPA is confined to the countries in the LDC list of the PoA-DD.		OK
B.3.2	Are there conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo)?	/1/	DR	The eligibility criteria for inclusion of CPA include conditions to prevent double counting of emission reductions. In fact, CPA requesting inclusion will have to demonstrate that the CPA is not registered under another PoA or as a CDM project, and each product disseminated by the CPA must be visibly and permanently		OK

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Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
			<p>trademarked as the Natural Balance product “Wonderbag”.</p> <p>Moreover, the programme is designed in such a way as to take into consideration the possibility that other CDM projects may overlap with the proposed programme in terms of geographical boundaries, and makes provisions to avoid double counting:</p> <p>the KPT on which emission reductions calculations are based will be performed on a random sample of the population for each CPA, to reflect the actual baseline and project consumption, including the consumption experienced by households that may be already involved in a different GHG project.</p> <p>CPAs will demonstrate eligibility based on UNFCCC CDM public information and on the design and markings of the product.</p>		
B.3.3 Are there specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications?	/1/	DR	<p>Specifications of technology/measure are included in one of the eligibility criteria for inclusion, which states that each product disseminated must have the technical characteristics of size and type/volume of insulation filling, required for it to perform as projected by the project documents.</p> <p>CPAs will demonstrate eligibility based on the size and type/volume of the products disseminated.</p>	CL3	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				<p><i>CL3:</i> The Project Participant is requested to clarify where the technical characteristics of size and type/volume of insulation filling are defined in the project documents, so that the eligibility of CPA01 and future CPAs can be demonstrated.</p>		
B.3.4	Are there conditions to check the start date of the CPA through documentary evidence?	/1/ /22/	DR CC	<p>One of the criteria for inclusion requires the CPA start date to be after the PoA validation date.</p> <p>This will be demonstrated by showing that the CPA records and emission reduction calculations are based on a start date after POA validation.</p> <p><i>CL4:</i> The Project Participant is requested to clarify what is meant by PoA validation date, in order to establish whether the eligibility criterion complies with the requirements of paragraph 7 of the Project standard.</p>	CL4	OK
B.3.5	Are there conditions that ensure compliance with applicability and other requirements of single or multiple methodology/ies applied by CPAs?	/1/ /24/	DR CC	<p>Regarding the applicability of a methodology, one of the eligibility criteria states: The technology disseminated by the CPA is an energy-saving heat retention cooking device</p> <p><i>CAR4:</i> The list of eligibility criteria for inclusion of CPAs under the PoA does not comply with paragraph 14 of the Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities, in that minimum criteria (e), (g), (i), (j) have not</p>	CAR4	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
B.3.6 Are there conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality, and are these in accordance with the requirements of the PoA Standard?		/1/ /29/	DR CC	<p><i>been included in the eligibility list.</i></p> <p>The PoA inclusion criteria set conditions relating to the demonstration of additionality for both micro- scale and small-scale project activities.</p> <p>A CPA will be eligible for inclusion if its size is below 20ktCO₂e per year, and:</p> <ul style="list-style-type: none"> (a) is located in a LDC/SID or special underdeveloped zone of the host country as identified by the Government before 28 May 2010; or (b) The project activity is an emission reduction activity in which <ul style="list-style-type: none"> (i) Each of the independent subsystems/measures in the project activity achieves an estimated annual energy saving equal to or less 1.8 GWhrthermal/year and 0.6 GWhrselec/year; and (ii) End users of the subsystems or measures are households, communities or SMEs. <p>Small-scale CPA are eligible for inclusion if they are able to demonstrate the existence of at least one of the barriers listed in Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities.</p> <p>CAR5: <i>The threshold for micro-scale CPAs does not</i></p>	CAR5	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				<p><i>comply with the threshold for Type II (energy efficiency) project activities, as described in paragraph 3 of the General Guidelines for SSC CDM Methodologies.</i></p> <p>Micro-scale CPAs will demonstrate eligibility based on annual emission reductions, location, and energy savings of individual devices, while small-scale CPAs will demonstrate additionality against at least one of the barriers listed in attachment A to appendix B.</p>		
B.3.7	Are there PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis?	/1/ /24/	DR CC	<u>See CAR4.</u>	CAR4	OK
B.3.8	Where applicable, are the target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation) specified?	/1/ /24/	DR CC	<u>See CAR4.</u>	CAR4	OK
B.3.9	Where applicable, are there conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys?	/1/ /24/	DR CC	<u>See CAR4.</u>	CAR4	OK
B.3.10	Where applicable, are there conditions that ensure that CPA in aggregate meets the small-scale or micro-scale threshold criteria and remain within those thresholds throughout the crediting period of the CPA?	/1/ /29/	DR CC	Conditions are in place to ensure that CPAs in aggregate meet the small-scale or micro-scale threshold criteria. One of the eligibility criteria for inclusion indicates that for CPAs designated in the CPA-DD as micro-scale, the projected and actual emission reduction claims must not be in excess of 20 kt/year. For CPAs designated as small-scale, energy saving must be less than 180 GWhrs thermal/year.	CAR5	OK

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Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
			<p><u>See CAR5.</u></p> <p>CPAs will demonstrate eligibility through emission reduction and energy savings projections, and through the calculations produced at the time of verification.</p>		
<p>B.3.11 Where applicable, are there requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories?</p>	<p>/1/ /29/ /31/</p>	<p>DR CC</p>	<p>CPAs need to demonstrate that each device disseminated achieves energy saving which are less than 1% of the threshold specified for the CPA, i.e. 1.8 GWhrs_{thermal}/year and 0.6 GWhrs_{elec}/year.</p> <p><i>CL5:</i> <i>The Project Participant is requested to clarify whether the debundling check only applies to small-scale CPAs, or also extends OK to micro-scale CPAs.</i></p> <p>CPAs will demonstrate eligibility through the average energy saving of each Wonderbag.</p>	<p>CL5</p>	<p>OK</p>
<p>B.3.12 Are there conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance?</p>	<p>/1/</p>	<p>DR</p>	<p>One criterion for CPA inclusion specifically addresses the use of ODA, and requires CPAs to include an affirmation in the CPA-DD that any funding from Annex I parties does not result in a diversion of ODA.</p> <p>CPAs will demonstrate eligibility based on the information provided in the CPA-DD.</p>		<p>OK</p>
<p>B.3.13 Are all eligibility criteria verifiable, and sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?</p>	<p>/1/</p>	<p>DR</p>	<p>A conclusion on the eligibility criteria for inclusion will be reached once relevant CAR/CLs are closed.</p>		<p>OK</p>

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
B.4 Application of methodologies by the PoA (VVS §190)						
B.4.1	Does the PoA apply approved methodologies and the correct and valid version thereof? If during the course of validation the originally applied version of the methodology expires, a CAR shall be raised in Table 3 of the validation protocol. Any new requirements of the revised version of the methodology not yet validated in Table 2 of the validation protocol shall be validated in Table 3 as part of the assessment of the CAR raised.	/1/	DR	Each CPA under this POA will use methodology AMS-II.G. version 03. This is the most recent valid version available on the UNFCCC website at the time of validation. <u>See CAR4.</u>	CAR4	OK
B.4.2	If the programme applies multiple methodologies, is their application in accordance with the PoA Standard?	/1/	DR	Not applicable: the programme does not apply multiple methodologies.		OK
B.4.3	If the PoA applies small-scale methodologies, does the PoA also comply with the general guidelines to SSC CDM methodologies, which provides guidelines on equipment capacity, equipment performance/lifetime, baseline identification for type-II/III Greenfield project activities, sampling and other monitoring-related issues?	/1/ /29/	DR CC	Compliance with the requirements of the general guidelines to SSC CDM methodologies by individual CPAs are ensured through eligibility criteria for inclusion.		OK
B.5 Management system of the PoA (VVS § 186) <i>Assessment of the PoA management systems in accordance with the PoA standard</i>						
B.5.1	Is there a clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies?	/1/	DR	The authority and responsibility for the overall programme management is clearly described: Each CI will be responsible for populating and maintaining the WB Distribution Database and WB User Database, while the CME will be responsible for ensuring these databases are correct and up to date at all times.		OK
B.5.2	Are there records of arrangements for training and capacity development for personnel?	/1/	DR	Training and technical support are explicitly included in the responsibilities of the CME.		OK
B.5.3	Are there procedures for technical review of inclusion of CPAs?	/1/	DR	The involvement of a DoE in the verification of CPAs is indicated in the PoA-DD.		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
B.5.4	Is there a procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA)?	/1/	DR	As stated in the PoA-DD, annual monitoring reports submitted to the Verifying DOE shall include survey of all other CDM activities in the region and demonstrate that the CPAs in question are not included in any other CDM activity or project.		OK
B.5.5	Is there a records and documentation control process for each CPA under the PoA?	/1/	DR	Oversight of record-keeping by manufacturers and CPA Implementers is indicated among the responsibilities of the CME.		OK
B.5.6	Are there measures for continuous improvements of the PoA management system?	/1/	DR	Continuous improvement of PoA management system is indicated as part of the responsibilities of the CME.		OK
B.5.7	Do the operational and management arrangements established by the coordinating entity include provisions to ensure that CPA implementers are aware and have agreed that their activity is being subscribed to the PoA?	/1/	DR	The operational and management arrangements established by the coordinating entity include provisions to ensure that CPA implementers are aware and have agreed that their activity is being subscribed to the PoA. In fact, a contract will be signed between the CME and a CI to ensure that the CI is aware of and has agreed that their activity is being subscribed to the PoA.		OK
C Duration of the PoA, Crediting Period (VVS § 197)						
C.1.1	Is the PoA starting date and length of the PoA clearly defined and evidenced?	/1/	DR	The starting date of the PoA has been set on 27 February 2012, which coincides with the date of publication of the programme documents for global stakeholder consultation.		OK
C.1.2	Does the PoA design documentation confirm that the length of the PoA does not exceed 28 years (60 years for A/R)?	/1/	DR	The PoA design documentation confirm that the length of the PoA does not exceed 28		OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
				years		
D Environmental Impacts (VVS § 134-137, VVS § 199-200)				<input checked="" type="checkbox"/> Analysis at PoA level <input type="checkbox"/> Analysis at CPA level This section must only be completed if the analysis of environmental impacts is at PoA level.		
D.1.1	Are there any host country requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved? Does the approval contain any conditions that need monitoring? For small-scale project activities, is an assessment of the environmental impacts of the proposed CDM project activity is required by the host Party?	/28/	DR CC	<p>According to the PoA-DD, no negative impact in the buildings in which the Wonderbag is used, or to the local, national, or global environment is foreseen, that could be caused by implementation of the PoA or the CPAs.</p> <p>Moreover, the prospect is that none of the activities or processes constituting a typical CPA of this programme requires Environmental Impact Assessments. Each DNA of each host country, will screen this question when considering to provide a LOA for the POA implementation via CPAs in that country.</p> <p><i>CL6:</i> <i>In accordance with the requirements of the Guidelines for completing the programme design document form for small-scale CDM programme of activities Version 02.0, the Project Participant is requested to justify the choice of level at which the analysis is undertaken.</i></p>	CL6	OK
D.1.2	Does the PoA comply with environmental legislation in the host country?	/1/	DR	<u>See CL6.</u>	CL6	OK
D.1.3	Will the PoA create any adverse environmental effects?	/1/	DR	<u>See CL6.</u>	CL6	OK

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Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
D.1.4	Have identified environmental impacts been addressed in the PoA design?	/1/	DR	<u>See CL6.</u>	CL6	OK
E Local stakeholder consultation (VVS § 138-140, VVS § 201-202)				<input type="checkbox"/> Consultation at PoA level <input checked="" type="checkbox"/> Consultation at CPA level This section must only be completed if the analysis of environmental impacts is at PoA level.		
E.1.1	Have relevant stakeholders been consulted?	/1/	DR	N/A: the analysis is performed at CPA level.		OK
E.1.2	Have appropriate media been used to invite comments by local stakeholders?	/1/	DR	N/A: the analysis is performed at CPA level.		OK
E.1.3	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	/1/	DR	N/A: the analysis is performed at CPA level.		OK
E.1.4	Is a summary of the stakeholder comments received provided?	/1/	DR	N/A: the analysis is performed at CPA level.		OK
E.1.5	Has due account been taken of any stakeholder comments received?	/1/	DR	N/A: the analysis is performed at CPA level.		OK

PART II. Generic component project activity (CPA)					
A Description of each generic CPA (VVS § 189)					
A.1.1	Does the description of each generic CPA sufficiently cover all relevant elements, is accurate and does it provides the reader with a clear understanding of the nature of the proposed CPAs?	/1/	DR	The description of each generic CPA sufficiently cover all relevant elements, is accurate and does it provides the reader with a clear understanding of the nature of the proposed CPA	OK
A.1.2	If applicable, are all different types of generic CPAs clearly described?	/1/	DR	Not applicable: only one type do CPA is contemplated.	OK
B Application of a baseline and monitoring methodology(ies)					
B.1 Title and reference of the approved baseline and monitoring methodology(ies) selected					
B.1.1	Are the exact reference and title of approved methodology(ies) and tools listed?	/1/	DR	Each CPA under this PoA applies methodology AMS-II.G. version 03.	OK
B.1.2	Are valid version of approved methodology(ies) and tools applied?	/1/	DR	The version applied is the most recent valid version available on the UNFCCC website at the time of validation.	OK
B.2 Applicability of methodology (and tools) (VVS § 73-77) <i>Insert a row for each applicability criteria of the applied methodology (and tools)</i>					
B.2.1	How was it validated that each specific CPA complies with the following applicability criteria: This category comprises appliances involving the efficiency improvements in the thermal applications of non-renewable biomass. Examples of these technologies and measures include the introduction of high efficiency biomass fired cook stoves or ovens or dryers	/1/	DR	This criterion is fulfilled by a typical CPA, since this consists of the distribution of energy-saving heat retention cooking devices, i.e. appliances involving the efficiency improvements in the thermal applications of non-renewable biomass.	OK

	and/or improvement of energy efficiency of existing biomass fired cook stoves or ovens or dryers.				
	<p>B.2.2 How was it validated that each specific CPA complies with the following applicability criteria:</p> <p>Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.</p>	/1/	DR	The use of non-renewable biomass since 31 December 1989 can only be assessed on a project location basis, and for this reason the assessment needs to be undertaken at CPA level.	OK
B.2.3	Is the selected baseline on of the baseline(s) described in the methodology and this hence confirms the applicability of the methodology?	/1/	DR	<p>The baseline indicated by the methodology is the following: it is assumed that in the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs.</p> <p>The baseline scenario identified in the PoA for all CPAs is the existing level of consumption of non-renewable biomass, used by the cooking systems currently in use and which will be used in the absence of the project.</p>	OK
B.3 Project boundary of each generic CPA (VVS § 82-87)					
B.3.1	What are each generic CPA's system boundaries (components and facilities used to mitigate GHGs)? Are they clearly defined and in accordance with the methodology?	/1/	DR	The components used to mitigate GHGs consist of heat-retention cooking (HRC) devices. This is clearly indicated in section A.2. of the PoA-DD.	OK
B.3.2	Which GHG sources are identified for the project? Does the identified boundary cover all possible sources linked to the project activity? Give reference to documents considered to arrive at this conclusion.	/1/	DR	The GHG sources identified are CO ₂ emissions from the combustion of cooking fuel both in the baseline and in the project scenario.	OK
B.3.3	Does the project involve other emissions sources not foreseen by the methodologies that may question the applicability of the methodology? Do these sources contribute with more than 1% of the estimated emission reductions of the project?	/1/	DR	The project does not involve other emission sources not foreseen by the methodology.	OK

B.4 Baseline scenario determination and description (VVS § 88-95 / Identification of alternatives to the project activity (VVS § 113-116)) <i>Ensure that the evaluation of all alternatives provided and required by the methodology and also possible alternatives/offshoots of alternatives are discussed. If baseline alternatives required to be considered by the methodology are considered not applicable, please assess the justification for this.</i>					
B.4.1	Which baseline scenarios have been identified? Is the list of baseline scenarios complete? Does the list include as one of the options that the project activity is undertaken without being registered as a proposed project activity? Does the list contain all plausible alternatives which are viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity?	/1/	DR	<p>Since the PoA only accepts CPAs that apply the indicative simplified methodology AMS-II.G, the baseline scenario for all CPAs is the one indicated by this methodology, i.e. "In the absence of the project activity, the baseline scenario would be the use of fossil fuels for meeting similar thermal energy needs".</p> <p>The baseline described in the PoA-DD complies with the requirements of the methodology, as the energy baseline is the existing level of consumption of non-renewable biomass, used by the cooking systems currently in use and which is used in the absence of the project activity.</p>	OK
B.4.2	How have the other baseline scenarios been eliminated in order to determine the baseline?	/1/	DR	Not Applicable. The applicable methodology is a simplified baseline and monitoring methodology, and as such, the baseline is set by the methodology.	OK
B.4.3	What is the baseline scenario?	/1/	DR	In the absence of the project activity, the energy baseline is the existing level of consumption of non-renewable biomass, used by the cooking systems currently in use and which will be used in the absence of the project.	OK
B.4.4	Is the determination of the baseline scenario in accordance	/1/	DR	The baseline scenario has been determined	OK

	with the guidance in the methodology?			according to the methodology.		
B.4.5	Has the baseline scenario been determined using conservative assumptions where possible?	/1/	DR	Not Applicable. The applicable methodology is a simplified baseline and monitoring methodology, and as such, only one baseline scenario is contemplated.		OK
B.4.6	Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies? Does the baseline scenario comply with all applicable and enforced legislation?	/1/	DR	The baseline scenario intrinsically takes into account relevant national and/or sectoral policies, macro-economic trends and political aspirations, since it consists of the “business as usual” scenario.		OK
B.4.7	Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?	/1/	DR	The baseline scenario consists of the “business as usual” scenario, and as such it will be determined by each CPA.		OK
B.4.8	Is the baseline determination adequately documented in the PoA-DD? <ul style="list-style-type: none"> • All assumptions and data used by the project participants are listed in the PoA-DD and related document to be submitted for registration. The data are properly referenced. • All documentation is relevant as well as correctly quoted and interpreted. • Assumptions and data can be deemed reasonable • Relevant national and/or sectoral policies and circumstances are considered and listed in the PoA-DD. • The methodology has been correctly applied to identify what would occurred in the absence of the proposed CDM project activity 	/1/	DR	The baseline scenario consists of the “business as usual” scenario, and as such it will be determined by each CPA.		OK
B.5 Demonstration of eligibility for each generic CPA						
B.5.1	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? The CPA is within the geographical boundary defined by the POADD, which in this case is a specific list of LDCs defined	/1/	DR	A typical CPA will demonstrate eligibility by providing evidence that the CPA is confined to the countries in the LDC list in the PoA-DD.		OK

	in the POADD.				
B.5.2	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? A. Confirmation that the CPA is not registered under another POA or as a CDM project B. Each product disseminated by the CPA is visibly and permanently trademarked as the Natural Balance product “Wonderbag”	/1/	DR	Eligibility will be demonstrated based on CDM public information available on the UNFCCC website, as well as the design and markings on the product.	OK
B.5.3	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? Affirmation in the CPADD that any funding from Annex I parties does not result in a diversion of ODA	/1/	DR	Eligibility will be demonstrated based on whether the CPA-DD contains such affirmation.	OK
B.5.4	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? The technology disseminated by the CPA is an energy-saving heat retention cooking device	/1/	DR	Compliance with this criterion will be confirmed based on an examination of the device.	OK
B.5.5	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? Each product disseminated has the technical characteristics of size and type/volume of insulation filling, required for it to perform as projected by the project documents	/1/	DR	Evidence for compliance will consists of the type/volume of the products disseminated.	OK
B.5.6	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? For CPAs designated in the CPA-DD as micro-scale, that the projected and actual emission reduction claims are not in excess of 20 kt/year. For CPAs designated as small-scale, check the CPA has an energy saving less than 180 GWhrthermal/year.	/1/	DR	A typical CPA will demonstrate compliance through the emission reduction and energy savings projections, which will be checked during verification.	OK
B.5.7	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? The CPA start date is after the POA validation date.	/1/	DR	Evidence for compliance with this eligibility criterion will consist of whether records and emission reduction calculations are based on a start date after the PoA validation.	OK

B.5.8	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? Each device disseminated by the CPA has an energy saving which is less than 1% of the threshold specified for the CPA5. In this case the de-bundling limit is 1.8 GWhrthermal/year and 0.6 GWhrselec/year.	/1/	DR	The demonstration of eligibility will be based on whether CPA records and emission reduction calculations are based on a start date after POA validation.		OK
B.5.9	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? The CPA size is below 20ktCO ₂ e per year, and (a) is located in a LDC/SID or special underdeveloped zone of the host country as identified by the Government before 28 May 2010; or (b) The project activity is an emission reduction activity in which (i) each of the independent subsystems/measures in the project activity achieves an estimated annual energy saving equal to or less 1.8 GWhrthermal/year and 0.6 GWhrselec/year; and (ii) end users of the subsystems or measures are households, communities or SMEs.	/1/	DR	The demonstration of eligibility will consist of annual emission reductions, location, energy saving of individual devices (results of performance tests under monitoring plan), and types of end users.		OK
B.5.10	Has it been sufficiently justified that each generic CPA complies with the following eligibility criteria? The small-scale CPA must demonstrate the existence of at least one of the barriers listed in Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities	/1/	DR	To confirm eligibility, CPA will demonstrate that the barrier analysis of the PoA applies in the case of the specific CPA.		OK
B.6 Algorithms and/or formulae used to determine emission reductions of each CPA (VVS § 96-100)						
Data and parameters that are available at validation and that are not monitored						
B.6.1	How was the quantity of biomass used in absence of the project available at validation verified?	/1/	DR	This parameter will be determined through a local survey or through historical data relevant to the		OK

			country of the CPA		
B.6.2	How was the fraction of biomass in year y that can be established as non-renewable using survey methods available at validation verified?	/1/	DR	<p>This parameter will be determined through studies and reports specific to woodfuel resources in the CPA host country and their management, and calculated as:</p> $f_{NRB} = NRB / (NRB + DRB)$ <p>Where DRB is the demonstrably managed woodfuel reserves in the CPA country, and NRB is the non-renewable biomass.</p>	OK
B.6.3	How was the Net Calorific Value of the wood used as cooking fuel available at validation verified?	/1/	DR	A value of 0.015 TJ/tonne is applied. This is the default value indicated by the methodology.	OK
B.6.4	How was the Emission factor for the substitution of non-renewable biomass by similar consumers available at validation verified?	/1/	DR	A value of 81.6 tCO ₂ /TJ is applied. This is the default value indicated by the methodology.	OK
B.6.5	How was the Ration Wood:Wood-Charcoal available at validation verified?	/1/	DR	Reports and studies specific to charcoal production patterns in the CPA host country. CPAs also have the option of using the IPCC default factor of 6 given in the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, in case studies specific to the region of the CPA.	OK
B.6.6	In case any of the parameters above were determined based on sampling, was the sample adequate and did it comply with the specific guidance in the applicable methodology or, if no such guidance is available in methodology, did it achieve a 90/10 confidence/precision as the criteria for reliability of sampling efforts for small-scale project activities and 95/10 for large scale project activities?	/1/	DR	One of the parameters available at validation - Quantity of biomass used in absence of the project – will be determined by the CPA through local survey or historical data relevant to the country of the CPA.	OK

Baseline emissions						
B.6.7	Are the calculations documented according to the approved methodology and tool and in a complete and transparent manner?	/1/ /27/	DR	<p>The procedure to calculate baseline emissions of an individual CPA have been documented in the PoA-DD.</p> <p><i>CL7:</i> <i>The list of parameters described in section E.6.1 of the PoA-DD, is not consistent with the information provided in section E.6.2, as $B_{y,savings}$ is calculated according to option A of the methodology, while some of the parameters listed in section E.6.1 refer to option B. The Project Participant is requested to clarify how CPA will calculate $B_{y,savings}$.</i></p> <p>Baseline energy consumption consists of the quantity of woody biomass used in the absence of the project activity.</p> <p>The project participant indicates in the PoA-DD that this will be determined through local survey or historical data relevant to the country of the CPA (if not specific to the country the survey or data must be applicable to the region).</p>	CL7	OK
B.6.8	Have conservative assumptions been used when calculating the baseline emissions?	/27/	DR CC	No assumptions were required when determining the procedure to be used to calculate the baseline emissions		OK
B.6.9	Are uncertainties in the baseline emission estimates properly addressed?	/27/	DR CC	No uncertainties were involved when determining the procedure to be used to calculate the baseline emissions		OK
B.6.10	If the calculations of baseline emissions are based on sampling, does this comply with the Standard for sampling and surveys?	/27/	DR CC	In case the value for B_{old} is determined through KPTs, sampling will be applied. The sampling procedure to be applied to KPTs is		OK

			described for parameter $B_{new,j}$.			
			A precision of 90-10 will be sought, failing which the lower bound of the 90 or 95% Confidence Interval will be used.			
			The precision selected is in accordance with the requirements of the applicable methodology.			
Project emissions						
B.6.11	Are the calculations documented according to the approved methodology and tool and in a complete and transparent manner?	/1/	DR	<p>The procedure to calculate project emissions of an individual CPA have been documented in the PoA-DD.</p> <p><i>See CL7</i></p> <p>Project energy consumption consists of the quantity of woody biomass used during the project activity, measured as per the Kitchen Performance Test (KPT) protocol.</p> <p>It is stated in the PoA-DD that the KPT protocol will follow appropriate international standards or guidelines which include the KPT procedures specified by the Partnership for Clean Indoor Air (PCIA) and the KPT guidelines approved by the Gold Standard Foundation in the GS methodology <i>Technologies and Practices to Displace Decentralized Thermal Energy Consumption</i>.</p>	CL7	OK
B.6.12	Have conservative assumptions been used when calculating the project emissions?	/27/	DR CC	No assumptions were required when determining the procedure to be used to calculate the project emissions		OK
B.6.13	Are uncertainties in the project emission estimates properly addressed?	/27/	DR CC	No uncertainties were involved when determining the procedure to be used to calculate the project emissions		OK

B.6.14	If the calculations of project emissions are based on sampling, does this comply with the Standard for sampling and surveys?	/27/	DR CC	A precision of 90-10 will be sought, failing which the lower bound of the 90 or 95% Confidence Interval will be used. The precision selected is in accordance with the requirements of the applicable methodology.		OK
Leakage		/1/	DR			
B.6.15	Are the leakage calculations documented according to the approved methodology and in a complete and transparent manner?	/27/	DR CC	The project participant has selected to adjust the value for B_{old} (quantity of woody biomass used in the absence of the project activity) by the net to gross adjustment factor of 0.95 provided by the methodology to account for leakages. In this case, surveys are not required.		OK
B.6.16	Have conservative assumptions been used when calculating the leakage emissions?	/27/	DR CC	The assumption made is in accordance with the methodology (net to gross adjustment factor).		OK
B.6.17	Are uncertainties in the leakage emission estimates properly addressed?	/27/	DR CC	Uncertainties regarding the quantification of leakages are addressed in accordance with the methodology (net to gross adjustment factor).		OK
B.6.18	If the calculations of leakage emissions are based on sampling, does this comply with the Standard for sampling and surveys	/1/	DR	No sampling is involved in the measurement of leakage.		OK
Emission Reductions						
B.6.19	Algorithms and/or formulae used to determine emission reductions: <ul style="list-style-type: none"> All assumptions and data used by the project participants are listed in the PoA-DD and related document submitted for registration. The data are properly referenced All documentation is correctly quoted and interpreted. All values used can be deemed reasonable in the context of the project activity The methodology has been correctly applied to calculate 	/27/	DR CC	Emissions reductions are to be calculated by each CPA in accordance with the requirements of the applicable methodology as the quantity of woody biomass that is saved, times the fraction of non-renewable biomass saved by the project activity, the net calorific value of the non-renewable biomass that is substituted, and the emission factor for the substitution of non-renewable woody biomass by similar consumers.	CL7	OK

the emission reductions and this can be replicated by the data provided in the PoA-DD and supporting files to be submitted for registration.				<ul style="list-style-type: none"> - $B_{y,savings}$: the project participant has selected option 1 of the methodology, where the savings in woody biomass consumption are calculated as the difference between the quantity of woody biomass used in the absence of the project activity and the annual quantity of woody biomass used during the project activity; - fNRB: this will be determined based on data relevant to the country of the CPA (if not specific to the country the survey or data must be applicable to the country); - NCV: the default value of 0.015 TJ/tonne provided by the methodology is to be applied by CPAs; - EF: the default value of 81.6 tCO₂/TJ provided by the methodology is to be applied by CPAs; <p>Moreover, the PoA-DD describes how the equations indicated in the methodology are to be applied by individual CPAs, also taking into account the length of the monitoring period, and number of appliances distributed, and the drop-off fraction accounting for appliances no longer in used.</p> <p><i>See CL7</i></p>		
B.7 Monitoring plan (VVS § 131-133)						
Data and parameters monitored						
B.7.1	Do the means of monitoring described in the plan comply with the requirements of the methodology?	/27/	DR CC	The monitoring plan documented according to the approved methodology.		OK
B.7.2	Does the monitoring plan contains all necessary parameters, and are they clearly described?	/1/	DR	The monitoring plan contains all necessary parameters.		OK

B.7.3	In case parameters are measured, is the measurement equipment described? Describe each relevant parameter.	/1/	DR	The KPT is the only instance where physical measurement is required. The PoA-DD indicates that measurement methods and procedures need to follow an internationally recognized protocol.		OK
B.7.4	In case parameters are measured, is the measurement accuracy addressed and deemed appropriate? Describe each relevant parameter.	/1/	DR	The KPT is the only instance where physical measurement is required. The PoA-DD indicates that measurement methods and procedures need to follow an internationally recognized protocol.		OK
B.7.5	In case parameters are measured, are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate? Describe each relevant parameter.	/1/	DR	The KPT is the only instance where physical measurement is required. The PoA-DD indicates that measurement methods and procedures need to follow an internationally recognized protocol.		OK
B.7.6	Is the monitoring frequency adequate for all monitoring parameters? Describe each parameter.	/1/	DR	<i>CL8:</i> <i>The Project Participant is requested to clarify the frequency of the KPT and of the DOF survey.</i>	CL8	OK
B.7.7	Is the recording frequency adequate for all monitoring parameters? Describe each parameter.	/1/	DR	The recording frequency adequate for all monitoring parameters		OK
B.7.8	In case any of the parameters will be determined based on sampling, is the sample plan adequate and does it comply with the specific guidance in the applicable methodology or, if no such guidance is available in methodology, does it achieve a 90/10 confidence/precision as the criteria for reliability of sampling efforts for small-scale project activities and 95/10 for large scale project activities?	/1/	DR	For the parameters monitored, a precision of 90-10 will be sought, failing which the lower bound of the 90 or 95% Confidence Interval will be used. The precision selected is in accordance with the requirements of the applicable methodology.		OK
Ability of project participants to implement monitoring plan						
B.7.9	How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?	/1/	DR	<i>CL9:</i> <i>The Project Participant is requested to clarify the registration, monitoring, measurement and reporting procedures planned for the programme.</i>	CL9	OK

B.7.10	Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	/1/	DR	See CL9	CL9	OK
B.7.11	Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?	/1/	DR	See CL9	CL9	OK
B.7.12	Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?	/1/	DR	CL10: <i>The Project Participant is requested to clarify whether all monitored data required for verification and issuance will be kept for two years after the end of the crediting period or the last issuance of CERs</i>	CL10	OK
Monitoring of sustainable development indicators/ environmental impacts						
B.7.13	Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host country?		DR	Since the proposed PoA will be implemented in multiple countries, legislative requirements for the monitoring of sustainable indicators can only be identified at CPA level.		OK
B.7.14	Does the monitoring plan provide for the collection and archiving of relevant data concerning environmental, social and economic impacts?		DR	The PoA monitoring plan does not provide for the collection and archiving of relevant data concerning environmental, social and economic impacts.		OK
B.7.15	Are the sustainable development indicators in line with stated national priorities in the host country?		DR	Since the proposed PoA will be implemented in multiple countries, national priorities can only be identified at CPA level.		OK

Table 3 Resolution of corrective action requests and clarification requests

Corrective action and/ or clarification requests	Reference to Table 2	Response by project participants	Validation conclusion
CAR1: <i>Not all countries listed as potential Host Parties of the CPAs have a DNA indicated on the UNFCCC website /32/.</i>	A.4	The POADD v2 does not list the countries expected to join the PoA in future years. Future inclusion of countries will be contingent on LoAs.	At the time of validation of the PoA, the only host party involved in the proposed programme is Rwanda. Rwanda fulfils the participation requirements in that: Party has ratified the Kyoto Protocol; Party has designated a Designated National Authority; The assigned amount has been determined; This has been validated against the information published on the UNFCCC website /32/. CAR1 is closed.
CAR2: <i>The proposed programme does not comply with the Project Standard in that the Letter of approval from the Annex I Party has not yet been submitted.</i>	A.4	A submission for a Letter of Approval from the Annex I party, the UK government, has been made; the LoA is expected by 31 August 2012 and will be forwarded to DNV as soon as it is received.	A letter of approval dated 18 September 2012 has been issued by the DNA of the UK, authorizing ABH Associates Ltd as project participant. CAR2 is closed.
CAR3: <i>The LoA received from the DNA of Rwanda does not refer to the precise project activity title</i>	A.4	A revised LoA with the title corrected has been issued by the DNA of Rwanda and is submitted alongside this response.	A letter of approval by the DNA of Rwanda, the host Party, dated 9 July 2012 has been submitted

<i>indicated in the PoA-DD.</i>			<p>/19/. The name indicated in the LoA corresponds to the name indicated in the PoA-DD</p> <p>DNV was in copy in the email communication exchange between the DNA and the project participant in relation to the change in project name and for this reason has no reason to doubt the authenticity of the LoA received.</p> <p>CAR3 is closed.</p>
<p>CAR4:</p> <p><i>The list of eligibility criteria for inclusion of CPAs under the PoA does not comply with paragraph 14 of the Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities, in that minimum criteria (e), (g), (i), (j) have not been included in the eligibility list.</i></p>	B.3	<p>The POADD has been revised to version 2 and follows the new template F-CDM-SSC-PoA-DD Version 02.0. The content of section B.2 complies with the <i>Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities</i> (EB 65, Annex 3), including minimum criteria (e), (g), (i), (j).</p>	<p>The list of eligibility criteria for inclusion of CPAs under the PoA is in accordance with paragraph 14 of the <i>Standard for the demonstration of additionality, development of eligibility criteria, and application of multiple methodologies for programme of activities</i>.</p> <p>CAR4 is closed.</p>
<p>CAR5:</p> <p><i>The threshold for micro-scale CPAs does not comply with the threshold for Type II (energy efficiency) project activities, as described in paragraph 3 of the General Guidelines for SSC CDM Methodologies.</i></p>	B.3	<p>The POADD v2 does not contain the option of micro-scale CPAs. It focusses exclusively on small-scale CPAs with a threshold for thermal energy savings of 180 GWhrs.</p>	<p>The threshold for SSC project activity with applies to CPAs is in accordance with the threshold for Type II (energy efficiency) project activities.</p> <p>CAR5 is closed.</p>
<p>CLI:</p> <p><i>The Project Participant is requested to clarify</i></p>	A.1	<p>The POADD v2 selects F-CDM-SSC-PoA-DD Version 02.0</p>	<p>F-CDM-SSC-PoA-DD Version 02.0 has been correctly applied by</p>

<i>which PoA-DD template version has been selected.</i>			the PP. CL1 is closed.
CL2: <i>The Project Participant is requested to submit evidence in support to the additionality of the programme.</i>	B.1	The POADD v2 demonstrates additionality at PoA level. The demonstration is based on the barrier to improved energy access reported in published studies in respect of all LDCs and Sub-Saharan African countries. Because CP01 takes place in a LDC, the PoA additionality case is confirmed.	The demonstration of additionality has been revised following EB68, to make use of the positive list of projects what can claim automatic additionality. The barrier analysis presented in earlier version of the PoA-DD has therefore been removed by the PP. CL2 is closed.
CL3: <i>The Project Participant is requested to clarify where the technical characteristics of size and type/volume of insulation filling are defined in the project documents, so that the eligibility of CPA01 and future CPAs can be demonstrated.</i>	B.3	The PoADD v2 defines the technical characteristics of size and volume of insulation filling in section A.6. The WB consists of a filling of insulation material, such as polyurethane foam or expanded polystyrene granules, sown into a cotton lining. The device consists of two components, a bag, and an insulation lid. A draw-string is incorporated into the design, to allow the bag to be sealed over the insulation lid. Two materials are used by NB to fill the bags: either polyurethane foam or expanded polystyrene granules, depending on factors such as supply availability and logistics. The specifications are provided in the two supporting documents <i>Specifications for WB1</i> and <i>Specifications for WB2</i> .	The PoA-DD provides the technical characteristics of a Wonderbag, in a way that is verifiable for the purpose of inclusion of CPAs in the PoA. CL3 is closed.
CL4:	B.3	The eligibility criterion (d) in Section B.2	The clarification provided in

<i>The Project Participant is requested to clarify what is meant by PoA validation date, in order to establish whether the eligibility criterion complies with the requirements of paragraph 7 of the Project standard.</i>		of the POADD v2 requires that the CPA shall have a start date after 27 February 2012, that being the date at which the Global Stakeholder Process was launched at commencement of the validation process of the PoA.	relation to the starting date of CPAs is considered acceptable. CL4 is closed.
CL5: <i>The Project Participant is requested to clarify whether the debundling check only applies to small-scale CPAs, or also extends to micro-scale CPAs.</i>	B.3	The POADD v2 refers only to small-scale CPAs.	The clarification provided on the de-bundling check is considered acceptable. CL5 is closed.
CL6: <i>In accordance with the requirements of the Guidelines for completing the programme design document form for small-scale CDM programme of activities Version 02.0, the Project Participant is requested to justify the choice of level at which the analysis is undertaken.</i>	D.1	Section E.1 of the PoADD specifies that environmental analysis is done at PoA level.	The assessment of environmental impacts is performed at PoA level. The decision has been justified based on two reasons: <ul style="list-style-type: none"> - the confirmation that host country requirements for the assessment and mitigation of environmental impacts will take place within the procedure for approval of the project activity for each of the host parties involved in the programme. Approval by host parties will be addressed at PoA level; - The interaction between technology and the local

			<p>environment in which it is used, is the same in each country and each CPA, since the same technology will be distributed as part of all CPAs.</p> <p>The justification provided is considered acceptable.</p> <p>CL6 is closed.</p>
<p>CL7: <i>The list of parameters described in section E.6.1 of the PoA-DD, is not consistent with the information provided in section E.6.2, as $B_{y,savings}$ is calculated according to option A of the methodology, while some of the parameters listed in section E.6.1 refer to option B. The Project Participant is requested to clarify how CPA will calculate $B_{y,savings}$.</i></p>	B.6	<p>The POADD v2 refers only to Option 1 of Paragraph 6 of the methodology. $B_{y,savings}$ is calculated as</p> $B_{y,savings} = (B_{old} - B_{y,new})$ <p>as specified by Option 1 of Paragraph 6.</p>	<p>The list of parameters available to CPAs at the time of inclusion and the list of parameters monitored by each CPA are consistent with the methodological choices for the calculation of emission reductions described for a typical CPA.</p> <p>CL7 is closed.</p>
<p>CL8: <i>The Project Participant is requested to clarify the frequency of the KPT and of the DOF survey.</i></p>	B.7	<p>The PoADD v2 specifies that that the KPT and DOF survey will be annual.</p>	<p>The frequency of the KPT and DOF has been indicated in the PoA-DD: both take place annually.</p> <p>CL8 is closed.</p>
<p>CL9: <i>The Project Participant is requested to clarify the registration, monitoring, measurement and reporting procedures planned for the programme.</i></p>	B.5	<p>The PoADD v2 clarifies these procedures.</p>	<p>Registration, monitoring, measurement and reporting procedures planned for the programme are clearly described in the PoA-DD.</p> <p>CL9 is closed.</p>

CL10: <i>The Project Participant is requested to clarify whether all monitored data required for verification and issuance will be kept for two years after the end of the crediting period or the last issuance of CERs</i>	B.7	The PoADD v2 contains this clarification.	The PoA-DD clearly states that all monitored data required for verification and issuance will be kept for two years after the end of the crediting period or the last issuance of CERs. CL10 is closed.
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Table 4 Forward action requests

Forward action request	Reference to Table 2	Response by project participants
No FAR have been identified.		Not applicable.

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APPENDIX B

PROTOCOL FOR ASSESSING COMPLIANCE OF SPECIFIC CPA WITH POA REQUIREMENTS

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
A Description of CPA (PS § 31, VVS § 62-63, § 189)					
A.1. Title, Technical description of CPA and Parties involved					
A.1.1 Does section A.1 of the CPA-DD include a clearly identifiable project title, version number of the CPA-DD and date of the CPA-DD?			<input type="checkbox"/> Clearly identifiable title of the project activity <input type="checkbox"/> Version number of the PoA-DD is included <input type="checkbox"/> Date of the PoA-DD is included.		
A.1.2 Is the CPA-DD is in accordance with the applicable requirements for completing CPA-DDs?					
A.1.3 Does the description of the CPA sufficiently cover all relevant elements, is accurate and does it provides the reader with a clear understanding of the nature of the proposed CPA?					
A.1.4 Does the CPA-DD provide information on the CPA implementer(s)? CPA implementers can be project participants of the PoA, under which the CPA is submitted, provided the name is included in the registered PoA.					
A.1.5 Does the CPA-DD describe all the technologies and/or measures to be employed and/or implemented by the CPA including a list of the facilities, systems and equipment that will be installed and/or modified by the CPA					
A.1.6 Does the CPA-DD adequately list all Party(ies) and CPA implementer(s) involved in the CPA and provide contact information in Appendix 1? Are all listed Party(ies) and CPA implementer(s) included in the PoA?					
A.1.7 Does the CPA-DD provide geographic reference or other means of identification that allows for the unique identification of the CPA?					
A.2. Duration of the CPA and crediting period					

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
A.2.1	Is the CPA starting date and operational lifetime clearly defined and evidenced?					
A.2.2	Has the crediting period been clearly defined and is the start of the crediting period deemed to be reasonable?					
A.2.3	Has it been confirmed that the length of the CPA crediting period does not exceed the end of PoA?					
A.3. Estimated amount of emission reductions from the CPA						
A.3.1	Has the emission reduction forecast been checked and is it deemed likely that the stated amount is achieved given that the underlying assumptions do not change?					
A.4. Public funding						
A.4.1	In case public funding from Parties included in Annex I is used for the project activity, have these Parties provided an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties?					
A.5. Confirmation for CPA						
A.5.1	Has a confirmation been provided that the CPA is neither registered as an individual CDM project activity nor is part of another registered PoA?					
B Environmental impacts (PS § 63-64, VVS § 134-135) <i>It is assessed whether environmental impacts of the CPA have been properly addressed.</i>				<input type="checkbox"/> Analysis at PoA level <input type="checkbox"/> Analysis at CPA level This section must only be completed if the analysis of environmental impacts must be at CPA level.		
D.1.2.	Has an analysis of the environmental impacts of the CPA been sufficiently described?					

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
D.1.3.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA)?					
D.1.4.	Will the programme create any adverse environmental effects?					
D.1.5.	Are transboundary environmental impacts considered in the analysis?					
D.1.6.	Have identified environmental impacts been addressed in the programme design?					
D.1.7.	Does the programme comply with environmental legislation in the host country?					
C Stakeholders' comments (PS § 65-69, VVS § 138-140) <i>It is assessed whether stakeholders have been properly consulted in the development of the CPA.</i>				<input type="checkbox"/> Consultation at PoA level <input type="checkbox"/> Consultation at CPA level This section must only be completed if the analysis of environmental impacts is at PoA level.		
C.1.1.	Have relevant stakeholders been consulted?					
C.1.2.	Have appropriate media been used to invite comments by local stakeholders?					
C.1.3.	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?					
C.1.4.	Is a summary of the stakeholder comments received provided?					
C.1.5.	Has due account been taken of any stakeholder comments received?					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
D Application of a baseline and monitoring methodology(ies)					
D.1. Title and reference of the approved baseline and monitoring methodology(ies) selected					
D.2.2. Are the exact reference and title of approved methodology(ies) and tools listed?					
D.2.3. Are valid version of approved methodology(ies) and tools applied?					
D.2. Applicability of methodology (and tools) (VVS § 73-77) <i>The applicability of the methodology is checked through the eligibility criteria specifying the the conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs</i>					
D.3.2. Do the eligibility criteria in D.5 below, in particular the eligibility criteria specifying the conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by the CPA, sufficiently demonstrate that the CPA complies with the applicability criteria of the applied methodology (and tools)? If not, provide below and assessment of the CPAs compliance with the applicability criteria.					
D.3.3. If not already sufficiently demonstrated through relevant eligibility criteria, how was it validated the CPA complies with the following applicability criteria: This category comprises appliances involving the efficiency improvements in the thermal applications of non-renewable biomass.					
D.3.4. If not already sufficiently demonstrated through relevant					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
eligibility criteria, how was it validated the CPA complies with the following applicability criteria: Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.					
D.3.5. If not already sufficiently demonstrated through relevant eligibility criteria, how was it validated the CPA complies with the following applicability criteria: Project participants shall apply the general guidelines to SSC CDM methodologies, information on additionality and general guidance on leakage in biomass project activities (attachment C to Appendix B) provided at http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html .					
D.3. Project boundary of CPA (VVS § 82-87)					
D.3.1. What is the CPA's system boundaries (components and facilities used to mitigate GHGs)? Are they clearly defined and in accordance with the methodology?					
D.3.2. Is the CPA located within the geographical boundary of the proposed or registered PoA?					
D.3.3. Which GHG sources are identified for the project? Does the identified boundary cover all possible sources linked to the project activity? Give reference to documents considered to arrive at this conclusion.					
D.3.4. Does the project involve other emissions sources not foreseen by the methodologies that may question the applicability of the methodology? Do these sources contribute with more than 1% of the estimated emission reductions of the project?					

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D.4. Baseline scenario determination and description (VVS § 88-95 / Identification of alternatives to the project activity (VVS § 113-116)) <i>Ensure that the evaluation of all alternatives provided and required by the methodology and also possible alternatives/offshoots of alternatives are discussed. If baseline alternatives required to be considered by the methodology are considered not applicable, please assess the justification for this</i>					
D.5.2. Which baseline scenarios have been identified? Is the list of baseline scenarios complete? Does the list include as one of the options that the project activity is undertaken without being registered as a proposed project activity? Does the list contain all plausible alternatives which are viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity?					
D.5.3. How have the other baseline scenarios been eliminated in order to determine the baseline?					
D.5.4. What is the baseline scenario?					
D.5.5. Is the determination of the baseline scenario in accordance with the guidance in the methodology?					
D.5.6. Has the baseline scenario been determined using conservative assumptions where possible?					
D.5.7. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies? Does the baseline scenario comply with all applicable and enforced legislation?					
D.5.8. Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?					
D.5.9. Is the baseline determination adequately documented in the PoA-DD?					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
<ul style="list-style-type: none"> • All assumptions and data used by the project participants are listed in the PoA-DD and related document to be submitted for registration. The data are properly referenced. • All documentation is relevant as well as correctly quoted and interpreted. • Assumptions and data can be deemed reasonable • Relevant national and/or sectoral policies and circumstances are considered and listed in the CPA-DD. • The methodology has been correctly applied to identify what would occurred in the absence of the proposed CDM project activity 					
D.5. Demonstration of eligibility for the CPA					
D.6.2. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The Wonderbags included in the CPA will be distributed within the geographical boundary as specified in section A.5 of this POA;					
D.6.3. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: Double counting of emission reductions shall be prevented in each CPA through an effective Wonderbag identification system;					
D.6.4. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: Each CPA shall specify the level and type of service of the Wonderbags, and provide performance specifications in compliance with suitable sampling survey protocols;					
D.6.5. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The CPA shall have a start date of 01/03/ 2012, this being					

Checklist Question		Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
	subsequent to start of the GSC, or date of first adoption of a Wonderbag, whichever is later;					
D.6.6.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The CPADD shall comply with the applicability and other requirements of the applicable methodology AMS II.G v3;					
D.6.7.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The circumstances of the CPA are such that it could not occur without the POA being in place;					
D.6.8.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: Local stakeholder consultations and environmental impact analysis is undertaken at PoA level and therefore this criterion is not applicable;					
D.6.9.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: No funding from Annex I parties, if any, results in a diversion of official development assistance;					
D.6.10.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The target group(s) of the CPA are one, or more than one, of the following: Households, communities or SMEs using wood-fuel for cooking;					
D.6.11.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The CPA monitoring plan shall include sampling and survey approaches consistent with the relevant standard from the Board and the applied methodology;					
D.6.12.	Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The CPA shall in aggregate meet the small-scale threshold					

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criteria of 180GWH _{th} / year and shall remain within that threshold throughout the crediting period of the CPA;					
D.6.13. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The individual devices disseminated by the CPA have an energy saving which complies with the approved Guidelines on assessment of debundling for SSC project activities;					
D.6.14. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: The CPA is located in a country classified by the UN as a LDC), where biomass cooking fuel is not 100% demonstrably renewable, and where there exist indicators of NRB;					
D.6.15. Has it been sufficiently justified that the CPA complies with the following eligibility criteria: Project participants are able to show that non-renewable biomass has been used since 31 December 1989, using survey methods or referring to published literature, official reports or statistics;					
D.6. Algorithms and/or formulae used to determine emission reductions of the CPA (VVS § 96-100)					
Data and parameters that are available at validation and that are not monitored					
D.7.2. How was the insert parameter available at validation verified?					
D.7.3. How was the insert parameter available at validation verified?					
D.7.4. How was the insert parameter available at validation verified?					
D.7.5. How was the insert parameter available at validation verified?					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
D.7.6. In case any of the parameters above were determined based on sampling, was the sample adequate and did it comply with the specific guidance in the applicable methodology or, if no such guidance is available in methodology, did it achieve a 90/10 confidence/precision as the criteria for reliability of sampling efforts for small-scale project activities and 95/10 for large scale project activities?					
Baseline emissions					
D.7.7. Are the calculations documented according to the approved methodology and tool and in a complete and transparent manner?					
D.7.8. Have conservative assumptions been used when calculating the baseline emissions?					
D.7.9. Are uncertainties in the baseline emission estimates properly addressed?					
D.7.10. If the calculations of baseline emissions are based on sampling, does this comply with the Standard for sampling and surveys?					
Project emissions					
D.7.11. Are the calculations documented according to the approved methodology and tool and in a complete and transparent manner?					
D.7.12. Have conservative assumptions been used when calculating the project emissions?					
D.7.13. Are uncertainties in the project emission estimates properly addressed?					
D.7.14. If the calculations of project emissions are based on sampling, does this comply with the Standard for sampling and surveys?					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
Leakage					
D.7.15. Are the leakage calculations documented according to the approved methodology and in a complete and transparent manner?					
D.7.16. Have conservative assumptions been used when calculating the leakage emissions?					
D.7.17. Are uncertainties in the leakage emission estimates properly addressed?					
D.7.18. If the calculations of leakage emissions are based on sampling, does this comply with the Standard for sampling and surveys					
Emission Reductions					
D.7.19. Algorithms and/or formulae used to determine emission reductions: <ul style="list-style-type: none"> • All assumptions and data used by the project participants are listed in the CPA-DD and related document submitted for registration. The data are properly referenced • All documentation is correctly quoted and interpreted. • All values used can be deemed reasonable in the context of the project activity • The methodology has been correctly applied to calculate the emission reductions and this can be replicated by the data provided in the PoA-DD and supporting files to be submitted for registration. 					
D.7. Monitoring plan (VVS § 131-133)					
Data and parameters monitored					
D.7.1. Do the means of monitoring described in the plan comply with the requirements of the methodology?					
D.7.2. Does the monitoring plan contains all necessary parameters, and are they clearly described?					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
D.7.3. In case parameters are measured, is the measurement equipment described? Describe each relevant parameter.					
D.7.4. In case parameters are measured, is the measurement accuracy addressed and deemed appropriate? Describe each relevant parameter.					
D.7.5. In case parameters are measured, are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate? Describe each relevant parameter.					
D.7.6. Is the monitoring frequency adequate for all monitoring parameters? Describe each parameter.					
D.7.7. Is the recording frequency adequate for all monitoring parameters? Describe each parameter.					
D.7.8. In case any of the parameters will be determined based on sampling, is the sample plan adequate and does it comply with the specific guidance in the applicable methodology or, if no such guidance is available in methodology, does it achieve a 90/10 confidence/precision as the criteria for reliability of sampling efforts for small-scale project activities and 95/10 for large scale project activities?					
Ability of project participants to implement monitoring plan					
D.7.9. How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?					
D.7.10. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?					
D.7.11. Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be					

Checklist Question	Ref	MoV	Assessment by DNV	Draft Concl.	Final Concl.
reported ex post and verified?					
D.7.12. Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later?					
Monitoring of sustainable development indicators/ environmental impacts					
D.7.13. Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host country?					
D.7.14. Does the monitoring plan provide for the collection and archiving of relevant data concerning environmental, social and economic impacts?					
D.7.15. Are the sustainable development indicators in line with stated national priorities in the host country?					

APPENDIX C

CURRICULA VITAE OF THE VALIDATION TEAM MEMBERS

Francesca started working in 2004 on research and training on sustainable development and CSR for businesses in Italy. From 2007 she worked as Climate Change Officer in London, in a large urban regeneration project. The role involved achieving carbon reductions in all new developments (residential, schools, hospitals, commercial), by embedding energy efficiency, renewable energy technologies, and improved energy distribution in planning conditions. The role also included ensuring compatibility with a large district heating scheme under construction, and incorporating climate change adaptation measures in new developments. In 2009 Francesca moved to a company specialised in taking part to tenders financed by the United Nations, the World Bank, the European Union and the Italian Ministry of Foreign Affairs for development programmes. Her role as Project Manager focused on the supply of off-grid renewable energy technologies for rural electrification. The current Project Manager position involves executing and managing CDM/JI validation and verification assignments, verification under voluntary schemes, and third party services within the institutional climate change department, providing advisory services on climate change adaptation and mitigation to institutional customers, and providing global support and training in the relevant specialized technical areas within the DNV global Climate Change Services team.

Andres Espejo - Holds a 6 year Bachelor/Master Degree in "Ingeniería de Montes" (Natural Resource Engineering) by the Polytechnic University of Madrid (Spain) . Having an overall experience of 8 years. Prior to joining DNV having 5 years experience in biomass generation, natural resource management, and generation with other renewables, covering the management of forestry operations, management of grasslands and pasturelands, procurement of timber and biomass, management of forest states, pre-feasibility studies for renewable generation projects, etc.

He has experience of 2 years in validation and verification of numerous CDM projects. His qualification, industrial experience and experience in CDM demonstrate him sufficient sectoral competence in Energy Generation from renewable energy sources (Technical Area 1.2), Forestry (Technical Area 14.1) and Agriculture (Technical Area 15.1).

Furthermore, his involvement in the development of various business plans demonstrate him sufficient financial expertise

Grant Little holds a Bachelor Degree in Pure and Applied Chemistry; with a Secondary Degree in Forest Products Manufacture and a Masters Degree in Business Administration (MBA). He has over 20 years of industrial experience. Prior to joining DNV, Grant gained 16 years' experience in the forest products industry covering Process Engineering, energy projects, Sustainable Development, Forest eco-labelling and Environmental Management Systems. He also has over 5 years' experience in the business development for carbon project development and carbon markets in Africa and the Middle East where he worked for a carbon aggregator and a government owned carbon management and environmental project development company. He is passionate about Africa and sees his work as a contribution to the development of the continent.

Giovanni Tenderini holds a master degree in Energy Engineering focused on energy generation and conversion. He gained his three years professional experience in the power sector where he became familiar with International Financing Institutions project

implementation methodologies (ADB, WB, IBRD, EBRD and other international banks) for organization and management of tender procedures for the award of engineering services and construction in the field of hydro and thermal power plants. Moreover, as Power Engineer he has been in charge of the electro-mechanical design review, construction supervision, preparation of due diligences, feasibility studies, technical specifications and cost estimate of power generation projects mainly located in the Middle East area. The current Project Manager position involves executing and managing Energy Efficiency projects, CDM/JI validation and verification assignments, executing and managing verification under voluntary schemes, and providing global support and training in the relevant specialized technical areas within the DNV KEMA global Climate Change Services team. His qualification, industrial experience and experience in CDM demonstrate his sufficient financial expertise and sectoral competence in thermal energy generation from fossil fuels and biomass including thermal electricity from solar, energy generation from renewable energy sources, electricity distribution and energy demand.

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