



**Approved baseline and monitoring methodology /  
methodological tool clarification response form  
(Version 03.0)**

**INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL / WG**

<b>Date and number of Panel / WG meeting:</b>	N/A
<b>Title/Subject of the request for clarification:</b>	Clarification on efficiency testing of a stove model made by several manufacturers under AMS-II.G.
<b>Reference number of the request for clarification:</b>	SSC_760
<b>Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:</b>	AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass --- Version 3.0  AMS-I.E.: Switch from non-renewable biomass for thermal applications by the user --- Version 6.0
<b>Fast track or Regular track:</b>	<input checked="" type="checkbox"/> Fast track <input type="checkbox"/> Regular track

**Summary of the request for clarification**

**Original text from Coordinating/Managing Entity (CME):**

We would value your opinion about this request for clarification concerning our registered PoA - ref 7014: Improved Cook Stoves for East Africa (ICSEA).

A rural wood stove model was initially manufactured by the International Lifeline Fund (ILF) in northern Uganda, and has been sold by ILF to two of our PoA's included members – ECOTRUST (in Uganda) and James Finlay Kenya (JFK) (in Kenya) – as the ILF Eco Smart Wood Stove. This has been documented as such in their respective CPA-DDs.

This stove model has also now been copied by other stove manufacturers who are also supplying our included members, e.g. Rural Development Inter-Diocesan Service (RDIS) in Rwanda as the RDIS Rural Wood Stove, where it is also documented in its CPA-DD.

A new CPA applicant that is currently being included in our latest batch of Supplier Organisations (SOs) is Mubende Stoves in Uganda. It is also manufacturing this model, both for distribution in its own first CPA, and for sale to other ICSEA PoA candidates in the same inclusion batch - the Ecological Christian Organisation (ECO) and the United Organic Coffee Organisation (UOCG), both in Uganda. It is similarly documented in each of their draft CPA-DDs as the Mubende Wood Stove.

There are only very slight variations in thermal efficiency between the three manufacturers making this generic stove model, as shown by the three thermal efficiency certificates issued by the same accredited testing laboratory (Makerere University's Centre for Renewable Energy & Energy Conservation - CREEC). ILF's Eco Smart Wood Stove's thermal efficiency is 29.3%; the RDIS Rural Wood Stove's thermal efficiency is 29.4%; and the Mubende Wood Stove's thermal efficiency is 30.4%. Copies of these certificates and supporting spreadsheets are attached.

In the absence of any Ugandan standard stove tests, in 2010 ICSEA Ltd commissioned its own Stove Rating Test based on its Water Boiling Test And Safety Test Protocol (latest version attached). This has been used by the three leading stove-testing labs in Uganda - CREEC, Chemiphar (U) Ltd (a private internationally affiliated company) and the Uganda National Bureau of Standards (UNBS) since 2010. It is no different from the WBT calculations of others such as the Global Alliance for Clean Cookstoves (GACC), and is the testing methodology that ICSEA Ltd uses to meet its UNFCCC obligations for conservativeness. Four random samples of each stove are sent for testing. The least performing stove is tested twice more, and the results are averaged.

Some of our members and applicants have chosen this generic stove model and have started

manufacturing it because it is not realistic to transport such a heavy object over long distances from the manufacturers – each one weighs some 22kg.

In the light of the very slight variations in the thermal efficiencies of the sampled stoves of the three manufacturers, will it be acceptable for us to regard this as being the same generic stove model? This would certainly help our monitoring work.

Across our various CPAs there are potentially several age cohorts. Our intention is to have one conservative thermal efficiency value for 1-year old stoves of the generic model, one for 2-year old stoves, and one for 3-year old stoves. These would be the thermal efficiencies that would be used with specific age cohorts in the ER calculations for each of the CPAs distributing this stove model.

One of our ex-colleagues (a previous DOE employee) has advised us "that the main document which addresses our question is the Guideline Sampling and surveys for CDM project activities and programmes of activities (Version 04.0), and specifically the Appendix 2. Best-practice examples for a single sampling plan for a homogeneous PoA. Paragraph 1.2.(a) defines the homogeneity which is required to bundle ICS. In my opinion, your case fits well to this definition. The paragraph says 'Project technology/equipment have comparable input/output characteristics'; and your ICS models are the project technology with comparable output characteristics as shown in your email to me".

Thank you in advance for your advice.

#### Clarification by the secretariat or Panel / WG

The Meth Panel would like to thank the author for the submission.

As per paragraph 124 of the PS for PoA, the CME is required to define the "*specification of the technology/measure, such as the level and type of service, as well as performance specification based on, inter alia, testing/certification*" as the eligibility criteria, and the DOE is required to verify "*project equipment*" specified in the included CPA-DDs are in place as per paragraph 341 of VVS for PoA. Therefore, the DOE is required to verify and confirm if the stoves can be considered as belonging to same generic stove model. The guidance below may facilitate the work of the DOE.

As noted in the submission 'comparable input/output characteristics' can be the basis to determine if the stoves manufactured to the same design by different producers can be considered as belonging to the same 'generic stove model'. The comparability of the output characteristics (i.e. efficiency) may be determined through hypothesis testing.

With regard to input characteristics, the DOE may check if stoves are manufactured, based on the **same product design** and same or comparable **materials and production processes** including QA/QC system.

If similarity is demonstrated for input and output, the stoves can be considered to belong to the same generic stove model.

#### Version(s) of the approved methodology / methodological tool to which the clarification is applicable:

AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass

AMS-I.E.: Switch from non-renewable biomass for thermal applications by the user

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#### Document information

Version	Date	Description
03.0	13 May 2016	Revised to include the row "Version(s) of the approved methodology / methodological tool to which the clarification is applicable"
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG (in case of clarification by Panel/WG)"

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	4 July 2013	<p>Initial publication. This document supersedes and replaces the following documents:</p> <ul style="list-style-type: none"><li>• Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1)</li><li>• Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1)</li></ul>
<p>Decision Class: Regulatory Document Type: Form, Clarification Business Function: Methodology Keywords: applying methodologies and tools</p>		