



CDM: Recommendation form for Small Scale Methodologies (Version 01.1)

(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)

Date of SSC WG meeting:	09–12 October 2012, SSC WG 39
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Revision of AMS-II.G to include monitoring requirements for replaced project technologies
Indicative methodology to which your submission relates <i>(refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable:</i>	AMS-II.G “Energy efficiency measures in thermal applications of non-renewable biomass”
Name of the authors of the query:	Nathan Gachugi Institution: Viability Africa nathan.gachugi@viabilityafrica.com

Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from Stakeholder:

1. Replaced Stoves

Paragraphs 15 & 16 of the baseline and monitoring methodology AMS-II.G provide the following requirements for monitoring:

15. Monitoring shall consist of checking the efficiency of all appliances or a representative sample thereof, at least once every two years (biennial) to ensure that they are still operating at the specified efficiency (η_{new}) or replaced by an equivalent in service appliance. **Where replacements are made, monitoring shall also ensure that the efficiency of the new appliances is similar to the appliances being replaced.**

16. Monitoring shall also consist of checking of all appliances or a representative sample thereof, at least once every two years (biennial) to determine if they are still operating or are replaced by an equivalent in service appliance.

These two paragraphs are indicative of the possibility of scenarios where the PP would be eligible to introduce project technologies which can be replaced periodically with project technologies of equal or similar thermal efficiencies as the project technologies introduced at the commencement of the crediting period.

This criterion is applicable solely to improved cook stoves whose thermal efficiency is quantified using the Water boiling test protocol as provided for in Option 2 of paragraph 6 of the baseline and monitoring methodology. In a situation where the WBTs are conducted in international/local laboratories the question exists as to whether the PP would have to conduct the same WBTs for the same project technologies as were tested at the beginning of the crediting period.

The PP therefore places the argument that the monitoring requirement for replaced stoves therefore should not be that the WBTs are conducted repeatedly but rather that for monitoring purposes the PP prove that only replaced stoves are credited or that replaced stoves do not require repeated testing and that only those ICSs which have not been replaced should be tested to quantify their efficiency in the project scenario.

2. Calculation of the thermal output

Paragraph 7 b provides that the parameter B_{old} can be calculated using an assessment of the thermal energy generated in the project activity as follows:

$$B_{old} = \frac{HG_{p,y}}{NCV_{biomass} * \eta_{old}}$$

Where HG p,y is equal to the Amount of thermal energy generated by the project technology in year y (TJ).

However there is no follow up formula used to calculate the parameter HG p,y.

In a previous clarification request to the CDM information team the following response was provided:

From: Cdm Info cdm-info@unfccc.int

It is our understanding as per AMS-II.G ver.03 that " Bold"- quantity of woody biomass used in the absence of the project activity - is determined as per the procedure in paragraph 7, option b) and the respective equation

5 while HGp,y is the amount of thermal energy generated by the improved cook stoves used under the project activity in year y. As per paragraph 18 of the methodology, in cases where the paragraph 7, option b) is used, the monitoring shall include the amount of thermal energy generated by the project technology annually. If the thermal energy generated by the improved cook stove cannot be monitored directly, it is our understanding that it needs to be derived from the monitored annual wood fuel consumption per appliance, the energy efficiency of the improved cook stove in year y and the net calorific value of the biomass. For further information on the monitoring requirements you may also refer to the clarification provided by the SSC WG in response to SSC_595 "Clarification on energy efficiency requirements for project cook stoves under AMS-II.G" available at http://cdm.unfccc.int/filestorage/T/O/D/TODMZFPK2C8GX319VB4QISYWJ5ELN7/Final%20response.pdf?t=VUx8bTZvcHhgfDDPEn2OWcDWr61KNvnKtf_H

Therefore the stakeholder would wish to include the following insert to the methodology to give clear guidance on the calculation of the thermal output:

$$HG_{p,y} = FC_{percapita} * N * NCV_{biomass} * \eta_{new}$$

Where:

FC _{percapita}	Woody biomass consumption per capita as evidenced through adequate research/monitoring and documentation provided by the project proponent (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non-governmental organizations or the project proponent to collect reliable and comprehensive data).
N	Number of persons per household
NCV _{biomass}	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne)
η_{new}	Efficiency of the system being deployed as part of the project activity (fraction), as determined using the Water Boiling Test (WBT) protocol. Use weighted average values if more than one type of system is being introduced by the project activity.

This approach would allow for easy monitoring where the PP would be able to use monitoring surveys to quantify the wood fuel consumption per household as well as the number of persons relying on the project technology per year – this approach would allow for clear parameters which should be monitored to assess the amount of thermal energy generated by the project technology namely the average wood fuel consumption and the number of people served by each appliance.

3. Emissions from charcoal production:

Charcoal is a significant source of woody biomass consumed for many peri urban and urban households in the developing world.

(http://www.ucsusa.org/assets/documents/global_warming/UCS_DriversofDeforestation_Chap8_Woodfuel.pdf)

The production of charcoal from inefficient kilns and production sources results in a significant amount of wood fuel being burned to produce the charcoal itself. Emissions from the charcoal production have not been factored into any existing CDM methodology.

The IPCC provides the following with regards to the charcoal production process:

"Values for estimating the amount of carbon released through charcoal production and consumption, the wood-to-charcoal factor, are stated to be between 4 and 8. If no local information is available, 6 kg of wood input per kg of charcoal may be used as default (FAO, 1990).

Therefore the request for revision shall now seek to include a provision for the conversion of factor to incorporate the wood charcoal factor using the default value of 6 or national statistics as appropriate.

Recommendation by the SSC WG:

Please use the space below to provide amendments / change (in your expert view, if necessary).

Please refer to paragraph 18(c) of the meeting report of the SSC WG 39
<http://cdm.unfccc.int/Panels/ssc_wg>.

Answer to authors of query by the SSC WG:

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSC WG agreed to recommend a revision of AMS-II.G "Energy efficiency measures in thermal applications of non-renewable biomass", as contained in annex 6 of the SSC WG 39 meeting report.

Signature of SSC WG Chair: Mr. Peer Stiansen

Date: 12/10/2012

Signature of SSC WG Vice-Chair: Ms. Fatou Gaye

Date: 12/10/2012

SECTION TO BE FILLED IN BY THE UNFCCC SECRETARIAT

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History of the document

Version	Date	Nature of revision(s)
01.1	12 April 2012	Editorial changes to include new logo and other improvements.
01.0	2005	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Methodology		