



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

INFORMATION TO BE COMPLETED BY THE SECRETARIAT OR PANEL / WG

Date and number of Panel / WG meeting:	26 Feb – 1 Mar 2019 / MP 78
Title/Subject of the request for clarification:	Monitoring of the thermal energy generated (HG _{p,y})
Reference number of the request for clarification:	SSC_745
Exact reference (number, title and version) of the methodology or methodological tool to which the request for clarification applies:	AMS-I.E.: “Switch from non-renewable biomass for thermal applications by the user”
Fast track or Regular track:	<input type="checkbox"/> Fast track <input checked="" type="checkbox"/> Regular track

Summary of the request for clarification

Original text from the Stakeholder:

In case that By is determined through the thermal energy generated in the project activity, the methodology AMS-I.E requests monitoring of the amount of thermal energy generated by the new renewable energy technology in the project in year y. The response to SSC_474 clarified that the manufacturers specifications on the installed/rated thermal output should be used as per the ‘General Guidelines to SSC CDM methodologies’ in order to verify compliance with the small-scale limit of 45 MW of thermal output. However, it is not clear whether the manufacturers specifications can be also used as part of the annual monitoring of the parameter ‘Quantity of thermal energy generated by the new renewable energy technology in the project in year y’.

The PP would like to seek clarification if it is accepted to monitor the quantity of thermal energy generated (HG_{p,y}) through the installed/rated thermal output (in kW) as provided by the manufacturer’s specifications multiplied with the number of hours per day households use the renewable energy device (in this specific case: ethanol cookstoves) in average determined through a survey following the ‘Standard: Sampling and surveys for CDM project activities and PoAs’.

Example for illustrative purpose:

Installed/rated thermal output = 1.8 kW_{th}/stove

Number of hours per day households use renewable energy device in average: 4 hours/day

Calculated thermal energy generated (in kWh) = 1.8 x 4 = 7.2 kWh/stove

Conversion from kWh to TJ (Conversion factor 0.0000036) = 7.2 x 0.0000036 = 0.00002592 TJ/day/stove

HG_{p,y} (Thermal energy generated in TJ/year) = 0.00002592 TJ/day x 365 = 0.0094608 TJ/year/stove

For the ex-ante calculation, PP would determine the thermal energy generated through the installed/rated thermal output (in kW) of the project device as provided by the manufacturer’s specifications multiplied with the number of hours households use the baseline devices.

Annual laboratory tests or measurements in the field to determine the thermal energy generated are not feasible for the PP since they would imply a very high cost and significant work burden, which are not proportional to the return of the carbon project.

The PP would like to ask the SSC working group to consider this request under the fast track procedure, since PP would like to submit the project documentation for DOE validation and registration request as soon as possible. The PP would like to thank the SSC working group for its understanding in advance.

Clarification by the secretariat or Panel / WG

The Methodologies Panel (Meth Panel) of the CDM Executive Board would like to thank the author for the submission.

The Meth Panel noted that Data / Parameter table 14 for "*HGp,y*" (Quantity of thermal energy generated by the new renewable energy technology in the project in year y) in AMS-I.E. includes specific guidance for biogas units by referring to AMS-I.I.: Biogas/biomass thermal applications for households/small users, but not for cookstoves.

The Meth Panel is of the view that for the case of ethanol cookstoves, the related requirements from AMS-I.I. for determining thermal energy generated in the case of processed renewable biomass (refer to paragraph 13 of the methodology version 4.0) may be adopted. Therefore, the preferred approach to determine the thermal energy output of the stoves would be through monitoring the amount of ethanol used for cooking by the households (if required, on a sample basis), the NCV and density of the ethanol, and the efficiency of the project stoves determined according to the requirements of AMS-II.G.: Energy efficiency measures in thermal applications of non-renewable biomass for $\eta_{new,i,j}$.

The manufacturers rated thermal capacity of the stoves and the monitored utilization hours entails uncertainties since e.g. stoves may be operating at partial capacity. Therefore, for this option, it may be necessary to determine the average capacity utilization of stoves through surveys.

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

AMS-I.E.: "Switch from non-renewable biomass for thermal applications by the user" - *The clarification request is not bound to a certain version of the methodology.*

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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)"
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: <ul style="list-style-type: none"> • Recommendation Form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1) • Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1)
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