Questions for public inputs in relation to the top-down revision of AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass

Version 01.0
COVER NOTE

1. **Procedural background**
   1. At its 40th meeting, the SSC WG, among others, recommended that the Board launches a call for public input on the draft revised methodology “AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass”. This information note contains questions on specific issues related to the draft revised methodology for the call for public input.

2. **Purpose**
   2. This document serves to provide example issues that the SSC WG is seeking for comments from the public in order to further improve the approved methodology for recommendation.

3. **Key issues and proposed solutions**
   3. The draft revision aims to address various issues including the guidance for phased implementation of projects and provisions to address the continued usage of baseline stoves.

4. **Impacts**
   4. Not applicable (call for public input).

5. **Proposed work and timelines**
   5. The SSC WG, at its 40th meeting, prepared a list of questions for specific public input on approved methodology AMS-II.G. After receiving public input on the document, the SSC WG will continue working on the revision of the approved methodology at its 41st meeting for recommendation to the Board at EB 75.

6. **Recommendations to the Board**
   6. The SSC WG recommended that the Board launch a call for specific public input on the list of questions in relation to the revision of the methodology AMS-II.G prepared by the SSC WG.
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1. Introduction

1. The SSC WG is considering revising “AMS-II.G: Energy efficiency measures in thermal applications of non-renewable biomass” in view of further standardization and integrating suppressed demand issues for Projects and Programmes of Activities. The SSC WG is thus seeking public input on the issues presented below as well as input on other topics that commenters may wish to present.

1.1. Purpose

2. The purpose of this document is to describe the key issues and potential solutions on which feedback from the public is requested.

1.2. Key issues, potential solutions and questions

1.2.1. Phased implementation

(a) **Description of the issue** - Due to a lack of provisions in the methodology, project proponents currently design their own approaches in the PDDs to account for the situation where cook stoves are installed in a phased manner. An uniform approach (more specific guidance and calculation formulae) to cover phased distribution/installation of equipment should be provided;

(b) **Possible solutions** - AMS-II.J stipulates that “The electricity savings from the efficient lighting equipment installed by the project activity shall be considered from the date of completion of installation of the equipment.” Similarly, in the case of AMS-II.G, the provision that emission reductions should be considered from the date of commissioning of the equipment could be included in the methodology;

(c) **Questions** - Provide your comments on the proposed solution or other suggestions on this issue.

1.2.2. Continued usage of baseline stoves

(d) **Description of the issue** - Continued usage of baseline & 3 stone stoves along with the project stove (ICS) has been seen in many PDDs. Paragraph 26 of AMS-II.G requires that “Monitoring shall ensure that either: (a) The replaced low efficiency devices are disposed of and not used within the boundary or within the region; or (b) If baseline stoves continue to be used, monitoring shall ensure that the fuel-wood consumption of those stoves is excluded from B_{old}.” The analysis of PoA-DDs shows that 13 out of 15 PoA-DDs selected option (b). However, due to a lack of guidance, the approach to account for the continued usage of baseline stoves varies from one PoA to another. For example, in some cases, PPs conduct the survey of the woody biomass consumption after project implementation, and consider the average reduced consumption as a proxy for the fuel consumption of the newly introduced ICS. The assumption is that the parameter $B_{old}$ (per household) is now less in the project ($B_{new}$) because of the ICS. However, the number of users and the usage of cookstove itself wasn’t measured neither in the baseline survey nor in the project, only the amount of woody biomass;
(e) **Possible solutions** - Further detailed guidance and formula to address the continued usage of baseline stoves (e.g. how to quantify utilization rates of baseline stoves, how to differentiate the consumption by ICS and old stoves) should be provided in the methodology. Proposed solutions include:

(i) To encourage the use of Stove Utilization Monitors (SUMs) at some representative households (e.g. 10 households per CPA) in order to improve the accuracy of monitoring;

(ii) To require that monitoring through survey with quantitative measurements (KPT) is based on individual measurement of stoves used during the test;

(iii) To allow the use of qualitative surveys (questionnaire) only for the case of complete decommissioning of the baseline stoves, and not for three stone stoves since it is not possible to demonstrate that they have been decommissioned.

(f) **Questions** - Provide your comments on the proposed solution or other suggestions on this issue.

1.2.3. **Determination of the quantity of woody biomass**

(a) **Description of the issue** - The methods to determine the quantity of woody biomass allowed under the methodology needs to be clarified and standardized where possible.

(b) **Possible solution** - Several improvements in the methods to determine the quantity of woody biomass can be explored;

(i) To provide calculations and methods to include multiple types of cook stoves used in the same household;

(ii) To clarify the conditions under which qualitative surveys (questionnaires) may be used (e.g. qualitative surveys should be only acceptable in situations where the ICS is exclusively used in the project households);

(iii) To clarify the conditions under which quantitative measurements are required (e.g. when woody biomass consumption in the project scenario needs to be quantitatively monitored in a survey such as the KPT or with SUMs);

(iv) To clarify the level of consistency to be required for measuring and reporting emission factors for baseline and project devices usage, for example. per device, per household, per person, in terms of primary energy utilization (biomass consumed) or per unit output of the appliances (meals, etc.);

(v) To include default values or standardized baselines for the quantity of woody biomass consumed per capita for low efficient cook-stoves;
(vi) To provide a Minimum Service Level (MSL) to consider suppressed demand (e.g. similar approach has been proposed by a Gold Standard methodology under consideration where 0.5 ton/capita/year is proposed as the MSL.)

(c) Questions - Provide your comments on the proposed solution or other suggestions on this issue.

1.2.4. Monitoring of stove efficiency

(d) Description of the issue - One of stakeholders indicated that repeating sampling surveys every year with a sample size of 30 to determine the efficiency of project cookstoves requires considerable effort, time and money. The stakeholder claimed that the calculated sample size is much less (1 or 2) due to small standardized deviation, but sampling standard requires a minimum sample size of 30;

(e) Possible solutions - Several options to address the issues include:

(i) To provide the default discount factor (e.g. 0.90) to consider efficiency loss over time. Only one time determination of stove efficiency is required and no annual monitoring is needed. (Note: similar approach has been proposed by the Gold Standard methodology under consideration). There is, however, a need to determine whether such simplified approach is conservative and equally valid for the different technologies introduced by the PoAs;

(ii) To decrease the required sample size for measurements in the case where it is demonstrated that the standardized deviation is very small;

(iii) To use the guaranteed efficiency which the technology provider gives about the expected lifetime;

(iv) To use any standard curve for the efficiency loss (if available), and the curve is used for determining the lifetime and efficiency loss, and some measurements are made to track this;

(v) To include a cap on the claimed efficiency, and any efficiency beyond the cap shall be demonstrated. It has been observed that many PDDs are claiming efficiencies for ICS (new) that is far higher than any gas cookstove (LPG, NG) which strongly doubtful for being based on combustion of solid biomass fuel;

(f) Questions - Provide your comments on the proposed solution or other suggestions on this issue.

1.2.5. Options to deal with frequent issuance requests when monitoring requirements are not provided

(a) Description of the issue - Many SSC methodologies that are designed for distributed emission reduction activities require monitoring of the retention rates of operational project appliances on a biennial basis only. They prescribe the maximum elapsed time before which a monitoring survey should have taken
place (e.g., "at least once every two years ..."). Annual or biannual surveys should also be feasible with differentiated sampling requirements specified in the methodology depending on the monitoring interval (i.e., 95/10 for biennial and 90/10 for annual). A query was raised with respect to the feasibility of requesting issuance biannually between the project commissioning/start and the first monitoring survey undertaken by the end of year 2 with no corresponding monitoring/survey effort during the period. However, there is no provision explicitly provided for this in any of the methodologies.

In the case of cook stove projects, many studies indicate that the lifetime of cook stoves could drop quite quickly and the average lifetime of cook stoves may be less than three years. Therefore, it is neither realistic nor conservative to assume that the number of devices working would be the same from the time of this initial inspection to the time of the first monitoring;

(b) **Possible solutions** - Several options to address the issues include:

(i) As is done in "AMS-II.J: Demand-side activities for efficient lighting technologies", a conservative failure rate curve for the cook stove could be developed and embedded in the methodology, and used for the period during which no survey is done;

(ii) A survey could be required for each monitoring period, and the surveyed value would then be applied for the monitoring period. Thus, when project proponents wish to request issuance between the project commissioning/start and the first monitoring survey undertaken by the end of year 2 (e.g., six months after the project commissioning/start), they would conduct the monitoring survey during each monitoring period. The emission reductions which are claimed during the monitoring period would then be calculated based on the monitored data measured during the same monitoring period;

(iii) Use the most recently available parameter value (e.g., 100 per cent/ex-ante estimation for the first one (or the first two) years) for verifications where no survey is done;

(iv) This non-conservative solution (iii), may eventually be combined, with compensating for excess CERs issued during the following verification, once a parameter's value is known;

(c) **Questions** - Provide your comments on the proposed solution or other suggestions on this issue.

1.2.6. Minimum required information on project technology

(a) **Description of the issue** - The methodology does not have guidance on the level of details required for the description of project technology in the PDD;

(b) **Possible solutions** - The details of the specific project technology information that should be provided in the PDD could be stipulated in the methodology. For example, information on the initial efficiency of the ICL, the efficiency curve, guarantee, interchangeability/equivalence with the existing cook stoves, etc. Important features for example: impact to indoor air quality at households
(presence or not of stacks), the cross-effects with heating/cooling and lighting needs, and possible integration with other technologies, for example with safe drinking water purifiers are usually not discussed in the PoAs designs;

(c) **Questions** - Provide your comments on the proposed solution or other suggestions on this issue.

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**Document information**

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