



New baseline and monitoring methodology recommendation form (Version 02.0)

INFORMATION TO BE COMPLETED BY PANEL/WG

Date and number of Panel / WG meeting:	15–17 and 25–26 June 2020 / MP82
Title of proposed new methodology:	Switch from non-renewable biomass for electric cooking applications by the user
Reference number of proposed new methodology:	SSC-NM105
Title of underlying project activity or programme of activities:	Dissemination of Induction Cook Stoves in Nepal
History of submission:	First submission

Short description of the types of project activities or programme of activities covered by the methodology

Type III small-scale methodology.

Dissemination of electric cooking appliances that displace the use of non-renewable biomass. Examples of these technologies include, but are not limited to induction cook stoves, hot plates, heating coils, pressure cookers, rice cookers, multi-cookers.

Important conditions under which the methodology is applicable

The methodology is applicable to electric cooking appliances displacing use of non-renewable biomass.

Project participants or coordinating and managing entities shall describe in the PDD/PoA-DD how the double counting of emission reductions has been addressed (e.g. between end users, distributors and producers of stoves).

Project participants or coordinating and managing entities shall demonstrate that the electric cooking appliances are designed, constructed and operated to the requirements (e.g. with regard to safety) of a relevant national or local standard or comparable literature. Latest guidelines issued by a relevant national authority or an international organisation may also be used.

In cases where this methodology is combined with “AMS-I.F.: Renewable electricity generation for captive use and mini-grid”, the project proponent shall separately demonstrate the additionality of each of the component (i.e. supply of renewable energy to the households (Type I) and use of electric cooking appliances (Type III)). Furthermore, while combining the two components applicable requirements on start date and prior clean development mechanism (CDM) consideration shall be met in accordance with the CDM project standard and CDM project cycle procedures.

Measures are limited to those that result in emission reductions of less than or equal to 60 kt CO₂ equivalent annually.

Summary description of the methodology, including project boundary, baseline scenario, additionality, baseline emissions or removals, project emissions, leakage, emission reductions or removals and monitoring.

Description of the methodology

The methodology is applicable for project activities and PoAs that are disseminating Induction cookstoves (electric cooking appliances). The Induction cook stoves (electric cooking appliances) can be considered as Improved Cook Stoves (ICS) and are disseminated to the poor households who are earlier using traditional less efficient cook stoves. This leads to reduction of greenhouse gas emissions by displacing conventionally

used non-renewable biomass with renewable or less GHG intensive energy or grid.

Project boundary

The project boundary is the physical, geographical site of the use of electric cooking appliances.

For project activities involving national or regional grids, the spatial extent of the project boundary includes all power plants within the host country physically connected through transmission and distribution lines to the national or regional grid.

For project activities involving mini-grids, the spatial extent of the project boundary includes all power plants connected through transmission and/or distribution lines to the mini-grid which is being built or extended through the project activity.

For all project types, the spatial extent of the project boundary also includes the physical sites of the end-use consumers served by the project activity.

For projects involving multiple technologies (e.g. grid extension and stand alone system), the project boundary includes all of the relevant locations from the previous three paragraphs.

Baseline scenario

The baseline scenario is continued use of non-renewable biomass for cooking.

It is assumed that in the absence of the project activity, the baseline scenario would be the use of non-renewable biomass for meeting similar thermal energy needs by the household user/institutions.

For all project system, the project type is classified into 3 types:

- (a) Type I - Household user / institution connected to/using mixed national/regional grid (renewable & fossil fuel based) for running electric cooking appliances
- (b) Type II - Household user / institution connected to/using mini grid (100% renewable grid) for running electric cooking appliances
- (c) Type III - Household user / institution using only individual renewable energy generation systems (e.g. solar electric cooker etc.) for running electric cooking appliances

Additionality

Additionality is demonstrated using one of the options below:

- (a) Option 1 (Positive list)

Demonstrate ex ante that the penetration of electric cooking appliances is equal to or less than 5 per cent of the technologies/measures providing similar services in the region¹ in order to be considered as automatically additional.

The penetration shall be determined using one of the following options:

Official statistics or reports, relevant industry association reports or peer-reviewed literature;

Results of a sampling survey conducted by project participants or a third party as per the latest version of "Standard: Sampling and surveys for CDM project activities and programme of activities"; covering technologies/measures providing similar services as the project technology/measure.

To determine the penetration using the above paragraph, the most recent data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used, and the data vintage used shall not include data older than three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation/inclusion, whichever is earlier.

- (b) Option 2

Demonstrate additionality applying the "TOOL21: Demonstration of additionality of SSC project activities."

¹ Region/Applicable geographical area - should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.

(c) Option 3

Demonstrate additionality applying the “TOOL19: Demonstration of additionality of microscale project activities.”

Baseline emissions

Baseline emissions for Type I, Type II & Type III would be calculated as:

$$BE_y = B_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil_fuel} \quad \text{Equation (1)}$$

Where:

BE_y	=	Baseline emissions during the year y in t CO ₂ e
B_y	=	Quantity of woody biomass that is substituted or displaced in tonnes
$f_{NRB,y}$	=	Fraction of woody biomass used in the absence of the project activity in year y that can be established as non-renewable biomass (fNRB) ²
$NCV_{biomass}$	=	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne)
$EF_{projected_fossil_fuel}$	=	Emission factor for the substitution of non-renewable woody biomass by similar consumers. This will be fetched from existing version of AMS-I.E.

fNRB shall be calculated using either of the following two options:

- Ex ante:** the fNRB value is determined once at the validation stage, thus no monitoring and recalculation of the fNRB value during the crediting period is required;³
- Ex post:** the fNRB,y value is determined for the year “y” in the crediting period, requiring the fNRB value to be updated annually, following a consistent calculation procedure throughout the crediting period.

B_y is determined by using one of the following options:

- Calculated as the product of the number of households multiplied by the estimate of average annual consumption of woody biomass per household that is displaced by the project activity (tonnes/household/year):

$$B_y = N_{HH} \times (BC_{BL,HH,y} - BC_{PJ,HH,y}) \quad \text{Equation (2)}$$

Where:

N_{HH}	=	Number of households in the project activity, number
$BC_{BL,HH,y}$	=	Average annual consumption of woody biomass per household before the start of the project activity, tonnes/household/year
$BC_{PJ,HH,y}$	=	If it is found that pre-project devices were not completely displaced but continue to be used to some extent, average annual consumption of woody biomass per household in the pre-project devices during the project activity, tonnes/household/year
(b)	=	Calculated as the product of the number of persons served per household multiplied by the number of households and the estimate of average annual consumption of woody biomass

² Default values endorsed by designated national authorities and approved by the Board are available at <<https://cdm.unfccc.int/DNA/fNRB/index.html>>.

³ The ex ante value may not be changed until the end of the crediting period, even if the default national value applied previously as endorsed by the DNA at the time of validation may have expired before the end the crediting period.

per person that is displaced by the project activity (tonnes/person/year):

$$B_y = N_{HH} \times N_{p,HH} \times (BC_{BL,PP,y} - BC_{PJ,PP,y}) \quad \text{Equation (3)}$$

Where:

- $N_{p,HH}$ = Average number of persons served per household, number
- $BC_{BL,PP,y}$ = Average annual consumption of woody biomass per person before the start of the project activity, tonnes/person/year
- $BC_{PJ,PP,y}$ = If it is found that pre-project devices were not completely displaced but continue to be used to some extent, average annual consumption of woody biomass per person in the pre-project devices during the project activity, tonnes/person/year

- (c) Calculated as the product of the number of persons served per institution⁴ multiplied by the number of institutions and the estimate of average annual consumption of woody biomass per person that is displaced by the project activity (tonnes/person/year):

$$B_y = \sum_1^i N_{p,I,y,i} \times N_{I,i} \times (BC_{BL,PP,y} - BC_{BJ,PP,y}) \quad \text{Equation (4)}$$

Where:

- $N_{p,I,y,i}$ = Average number of persons served per institution in year y , number
- $N_{I,i}$ = Number of institutions type i prior to project implementation, number

Where charcoal is used as the fuel by baseline (old) devices, the quantity of woody biomass shall be determined by using a default wood to charcoal conversion factor of 6 kg of firewood (wet basis) per kg of charcoal (dry basis).⁵ Alternatively, credible local conversion factors determined from a field study or literature may be applied.

Project emissions

The following sources of project emissions shall be considered as applicable:

CO₂ emissions from electricity consumption by the project activity using the latest version of "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation", including the consumption of electricity for any processing of feedstock.

For Type II & Type III, $PE_y = 0$

For Type I, the project emission from electricity consumption will be calculated as:

$$PE_{EC,y} = EC_{PJ,i,y} \times EF_{EL,j,y} \times (1 + TDL_{j,y}) \quad \text{Equation (5)}$$

Where:

- $EC_{PJ,i,y}$ = Quantity of electricity consumed by the electric cooking appliance i in the project scenario in year y (MWh/yr)
- $EF_{EL,j,y}$ = CO₂ emission factor for electricity generation for source j in year y (t CO₂/MWh)

⁴ Institutions such as schools, prisons and hospitals.

⁵ Refer to: <<http://www.ipcc-nggip.iges.or.jp/public/gl/guidelin/ch1ref3.pdf>>. The term 'wet basis' assumes that the wood is 'air-dried' as is specified in the IPCC default table.

$TDL_{j,y}$ = Average technical transmission and distribution losses for providing electricity to source j in year y . Consider a 10% default value

The quantity of electricity consumed by electric cooking appliances is determined as per the following:

$$EC_{PJ,i,y} = N_{HH,y} \times EC_{AVG,y} \quad \text{Equation (6)}$$

Where:

$N_{HH,y}$ = Total number of households/institutions in year (nos.)

$EC_{AVG,y}$ = Average consumption of electricity by electric cooking appliance(s) in year y per household / institution (MWh/y)

The electricity consumption by the electric cooking appliance(s) for Type I is determined by following two options:

Option 1 - $EC_{AVG,y}$ is either determined by a custom built-ins attachment measuring the average electricity consumption of the electric cooking appliance(s) from a representative sample of households/institutions. Annual checks that of a sample of electric cooking appliance, done with a statistically significant sample of households/institutions. Electricity consumption is recorded on a sample basis to determine the annual average electricity consumptions. Use 90/10 or 95/10 precision for annual or biennial checks.

Option 2 - $EC_{AVG,y}$ is determined as a product of the rated capacity of the electric cooking appliance and the utilization hours:

$$EC_{AVG,y} = EC_{i,j} \times t_{y,i,j} \quad \text{Equation (7)}$$

Where:

$EC_{i,j}$ = Rated capacity of the electric cooking appliances (Watts)

$t_{y,i,j}$ = Number of hours of utilization of the electric cooking appliances during the year y (hrs)

A default value of 7 hours of daily utilization of electric cooking appliance can be used or otherwise Number of hours of utilization ($t_{y,i,j}$) shall be estimated at least once every two years (annually or biennially). The biennial survey shall follow a 90/95 per cent confidence interval and a 10 per cent margin of error in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities.

Leakage

Leakage emissions (LE_y) (related to the non-renewable woody biomass saved by the project activity shall be assessed based on ex post surveys of users and the areas from which this woody biomass is sourced (using 90/30 precision for a selection of samples). The following potential source of leakage shall be considered: The use/diversion of non-renewable woody biomass saved under the project activity by non-project households/users that previously used renewable energy sources. If this leakage assessment quantifies an increase in the use of non-renewable woody biomass used by the non-project households/users that is attributable to the project activity, then B_y is adjusted to account for the quantified leakage. Alternatively, B_y is multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case surveys are not required.

Emission Reduction

The emission reductions of the project in year y (ER_y) are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Monitoring

Following parameters will be fixed ex-ante:

Data / Parameter table 1.

Data / Parameter:	$\eta_{old,i}$
Data unit:	(i) Default 0.1 or 0.2 (please see details below); (ii) Establish prior to start of implementation based on survey
Description:	Efficiency of pre-project device
Source of data:	-
Measurement procedures (if any):	Efficiency of pre-project device, which is a three-stone fire using firewood (not charcoal), or a conventional device with no improved combustion air supply or flue gas ventilation, that is without a grate or a chimney; for other types of devices, a default value of 0.2 may be optionally used. Use weighted average values (taking the amount of woody biomass consumed by each device as the weighting factor) if more than one type of device is being replaced
Monitoring frequency:	Fixed for each individual household/institution when included in the project activity database

Data / Parameter table 2.

Data / Parameter:	$BC_{BL,HH,Y}$
Data unit:	tonnes/household/year
Description:	Average annual consumption of woody biomass per household before the start of the project activity
Source of data:	-
Measurement procedures (if any):	Determined ex ante using one of the following options: (a) $N_{p,HH} \times BC_{BL,PP,Y}$; or (b) Historical data or a sample survey conducted as per the latest version of the "Standard: Sampling and surveys for CDM project activities and programme of activities;" or (c) Country or region-specific values approved through the "procedure for development, revision, clarification and update of standardized baselines", which are available on the CDM website < http://cdm.unfccc.int/methodologies/standard_base/index.html >

Data / Parameter table 3.

Data / Parameter:	$N_{p,HH}$
Data unit:	number
Description:	Average number of persons served per household prior to project implementation
Source of data:	Established ex ante prior to project implementation based on records of households served by the project

Data / Parameter table 4.

Data / Parameter:	$BC_{BL,PP,Y}$
Data unit:	tonnes/person/year

Description:	Average annual consumption of woody biomass per person before the start of the project activity
Source of data:	-
Measurement procedures (if any):	<p>Determined ex ante using one of the following options:</p> <p>(a) A default value of 0.5 tonnes/person per year⁶;</p> <p>(b) Historical data or a sample survey conducted as per the latest version of the “Standard: Sampling and surveys for CDM project activities and programme of activities.”</p> <p>(c) Country or region-specific values approved through the “procedure for development, revision, clarification and update of standardized baselines,” which are available on the CDM website http://cdm.unfccc.int/methodologies/standard_base/index.html </p>

Data / Parameter table 5.

Data / Parameter:	$f_{NRB,y}$
Data unit:	-
Description:	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass
Source of data:	-
Measurement procedures (if any):	As per “TOOL30: Calculation of the fraction of non-renewable biomass”

Data / Parameter table 6.

Data / Parameter:	$NCV_{biomass}$
Data unit:	TJ/tonne
Description:	Net calorific value of the non-renewable woody biomass, briquettes or charcoal used in baseline devices
Source of data:	-
Measurement procedures (if any):	<p>IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is ‘air-dried’ may be used if fuel used in project device is also woody biomass.</p> <p>If briquette is used as project fuel, NCV shall be measured annually</p>

Data / Parameter table 7.

Data / Parameter:	$EF_{EL,j,y}$
Data unit:	tCO ₂ /MWh
Description:	Emission factor for electricity generation for source j in year y
Source of data:	Utility or government records or official publications
Measurement procedures (if any):	<p>As per TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation.</p> <p>The determination of the emission factors for electricity generation ($EF_{EL,j,y}$) in the project scenario depends on which scenario (A, B or C), as described in Section 2.2, paragraph 5 that applies to the source of electricity consumption that would be displaced in the baseline by electricity generated in the project</p>

⁶ Refer to “Annex 5 - Information note on the rationale for default factors used in AMS-I.E. and AMS-II.G.” of the SSC WG 42 meeting report.

Monitoring frequency:	Fixed at the time of validation
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Data / Parameter table 8.

Data / Parameter:	$EC_{i,j}$
Data unit:	Watts
Description:	Rated capacity of electric cooking appliance as per manufacturer specification (W)
Source of data:	-
Measurement procedures (if any):	As per manufacturer specification

Following parameters will be fixed ex-ante:

Data / Parameter table 9.

Data / Parameter:	$N_{y,i,j}$
Data unit:	No units
Description:	Number of electric cooking appliances of type i (Type I, Type II, Type III) and batch j operating during year y
Source of data:	-
Measurement procedures (if any):	Measured directly or based on a representative sample. Sampling standard shall be used for determining the sample size to achieve 90/10 confidence precision. A discount shall be applied based on the percentage of devices operational as determined by the sample survey, e.g. if survey shows that 10% of the devices is non-operating, an adjustment factor of 0.9 shall be applied to number of project devices commissioned in a particular batch. Separate samples shall be taken for each batch
Monitoring frequency:	Annual/biennial

Data / Parameter table 10.

Data / Parameter:	N_{HH}
Data unit:	Number
Description:	Number of households in the project activity in year y
Source of data:	-
Measurement procedures (if any):	Established ex ante prior to start of the project activity
Monitoring frequency:	-

Data / Parameter table 11.

Data / Parameter:	Date of commissioning of project device of type i
Data unit:	Date
Description:	Actual date of commissioning of the project device.
Source of data:	Internal records
Measurement procedures (if any):	-
Monitoring frequency:	Fixed and recorded at the time of commissioning/distribution

Data / Parameter table 12.

Data / Parameter:	Date of commissioning of batch j
Data unit:	Date

Description:	To establish the date of commissioning, the Project Participant may opt to group the devices in “batches” and the latest date of commissioning of a device within the batch shall be used as the date of commissioning for the entire batch
Source of data:	Internal records
Measurement procedures (if any):	-
Monitoring frequency:	Fixed and recorded at the time of commissioning/distribution of the last project device in the batch
QA/QC procedures:	-
Any comment:	To be reported in the monitoring report

Data / Parameter table 13.

Data / Parameter:	$EC_{AVG,y}$
Data unit:	MWh/yr
Description:	Average consumption of electricity by electric cooking appliance(s) in year y per household/institution (MWh/y) (for Type I only)
Source of data:	-
Measurement procedures (if any):	<p>The average electricity consumption is either determined by -</p> <p>Option 1 - a custom built-ins attachment measuring the average electricity consumption of the electric cooking appliance(s) from a representative sample of households/institutions. Annual checks that of a sample of electric cooking appliance, done with a statistically significant sample of households/institutions. Electricity consumption is recorded on a sample basis to determine the annual average electricity consumptions.</p> <p>Use 90/10 or 95/10 precision for annual or biennial checks.</p> <p>Option 2 - $EC_{AVG,y}$ is determined as a product of the rated capacity of the electric cooking appliance and the utilization hours:</p> $EC_{AVG,y} = EC_{i,j} \times t_{y,i,j}$ <p>Where:</p> <p>$EC_{i,j}$ = Rated capacity of the electric cooking appliances (Watts)</p> <p>$t_{y,i,j}$ = Number of hours of utilization of the electric cooking appliances during the year y (hrs)</p> <p>A default value of 7 hours of daily utilization of electric cooking appliance can be used; or</p> <p>Number of hours of utilization ($t_{y,i,j}$) shall be estimated at least once every two years (annually or biennially). The biennial survey shall follow a 90/95 per cent confidence interval and a 10 per cent margin of error in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities</p>
Monitoring frequency:	Annual
QA/QC procedures:	Custom built-ins attachment measuring the average electricity consumption of the electric cooking appliance(s) shall be in conformity with industry standard and calibrated according to relevant requirements

Data / Parameter table 14.

Data / Parameter:	$t_{y,i,j}$
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Data unit:	Number of hours
Description:	Number of hours of utilization of the electric cooking application <i>i</i> during the year <i>y</i>
Source of data:	-
Measurement procedures (if any):	The number of utilization hours shall be estimated at least once every two years (annually or biennially). The biennial survey shall follow a 90/95 per cent confidence interval and a 10 per cent margin of error in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities". The average number of utilization hours of monitored sampled households/institution are then multiplied by annual number of days or number of days in the monitoring period to determine the number of hours of utilization of the electric cooking application <i>i</i> during the year <i>y</i>
Monitoring frequency:	Annual

Data / Parameter table 15.

Data / Parameter:	$BC_{P,HH,Y}$
Data unit:	tonnes/household/year
Description:	Average annual consumption of woody biomass per household in the pre-project devices during the project activity, if it is found that pre-project devices were not completely displaced but continue to be used to some extent
Source of data:	Surveys
Measurement procedures (if any):	Monitoring shall consist of estimation of all project devices or a representative sample thereof, at least once every two years (biennial)
Monitoring frequency:	At least once every two years (biennial)

Data / Parameter table 16.

Data / Parameter:	$BC_{P,PP,Y}$
Data unit:	tonnes/person/year
Description:	Average annual consumption of woody biomass per person in the pre-project devices during the project activity, if it is found that pre-project devices were not completely displaced but continue to be used to some extent
Source of data:	Surveys
Measurement procedures (if any):	Monitoring shall consist of estimation of all project devices or a representative sample thereof, at least once every two years (biennial)
Monitoring frequency:	At least once every two years (biennial)

Data / Parameter table 17.

Data / Parameter:	$N_{P,I,Y,i}$
Data unit:	Number
Description:	Average number of persons served per institution
Source of data:	-
Measurement procedures (if any):	Average number of persons served per institution shall be based on survey undertaken as per "Standard: Sampling and surveys for CDM project activities and programme of activities". This parameter shall be monitored every year. If the monitoring period is shorter or longer than one year, the result may be extrapolated for the monitoring period
Monitoring frequency:	Monitored annually ex post

Data / Parameter table 18.

Data / Parameter:	$f_{NRB,y}$
Data unit:	-
Description:	Fraction of woody biomass saved by the project activity during year y that can be established as non-renewable biomass
Source of data:	-
Measurement procedures (if any):	As per "TOOL30: Calculation of the fraction of non-renewable biomass"
Monitoring frequency:	-

Data / Parameter table 19.

Data / Parameter:	$NCV_{biomass}$
Data unit:	TJ/tonne
Description:	Net calorific value of the non-renewable woody biomass, briquettes or charcoal used in baseline devices
Source of data:	-
Measurement procedures (if any):	IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried' may be used if fuel used in project device is also woody biomass. If briquette is used as project fuel, NCV shall be measured annually
Monitoring frequency:	-

Data / Parameter table 20.

Data / Parameter:	$EG_{LS_FF,y}$
Data unit:	MWh/yr
Description:	Quantity of net electricity supplied by renewable power plant in year y for type II)
Source of data:	Power production record of plant
Measurement procedures (if any):	This is applicable for 100% renewable grid. This parameter is applicable to projects where renewable mini grid-connected power plants are deployed to power the electric cooking appliances, e.g. solar PV mini grid systems
Monitoring frequency:	Annual recording

Recommended decision to the Board on the proposed new baseline and monitoring methodologies

- ☐ Approve the proposed new methodology ("A case")
- ☐ Reject the proposed new methodology ("C case")

Reasons for rejection if the recommendation is C case

Work in progress

Any other issues arising from the assessment of the proposed methodology

MP82 agreed to include scenario II and scenario III described in this proposal in the AMS-I.E. during current top-down revision. Therefore, these scenarios will be removed from the proposed draft methodology.

Clarifications or modifications requested

Please use this section only when the form is used for requesting clarifications or modifications from the proponent according to paragraph 28 of the procedure “Development, revision and clarification of baseline and monitoring methodologies and methodological tools” (CDM-EB70-A36-PROC).

1. **Service level determination** – The response to SSC_749 had pointed out issues related to service level determination, such as whether electric cookstove meets all the cooking needs that was met by pre-project stove i.e., it may be used to provide only the part of cooking services e.g., only boiling water and the traditional cook stoves may still continue to be used, also in the situation when electricity supply is not available. It is noted that current provisions cover the accounting of continued use of pre-project stoves and fuels. These requirements may be further strengthened in the context of electric stoves e.g. stakeholder through a survey will carry out an inventory of pre-project cooking fuels, vessels and practices and energy sources to track the changes with regard to cooking fuel and devices. Based on the results and monitoring during project implementation, the stakeholder may need to discount baseline quantity of biomass. Such provisions may need to be built into the proposed methodology.
2. **Approach to calculate ‘By’ using ‘Thermal energy generated’ by the electric cookstove** – The stakeholder is requested to propose an approach to calculate ‘By’ using ‘Thermal energy generated ($HG_{PJ,y}$) and efficiency of the electric cooker, in addition to existing approaches in the draft proposal.
3. **Monitoring of electricity consumption of electric cookstoves** – The stakeholder is requested to provide further guidance on **monitoring** of electricity consumption of electric cookers. The Meth Panel suggests following two possibilities:

Option 1: All stoves will have built in data logger/data storage in which case sampling can be applied to collect data from randomly selected stoves; and

Option 2: Households are randomly selected to install data loggers. For this option, the stakeholder needs to elaborate the period for which measurement has to be conducted and process for measurement of electricity consumption.
4. **Default value of usage** – The proposed methodology proposes to use a default value of 7 hours against the usage of the electric cookstove. The stakeholder is requested to further substantiate this value providing publicly available and or peer reviewed **literature** sources.
5. **Emission factor for electricity generation source** – The stakeholder has referred to TOOL05 to determine an emission factor for electricity generation source. However, the description provided within the monitoring section for the parameter ($EF_{EL,j,y}$) is not clear in relation to selection of a specific scenario from TOOL05.
6. Parameter ‘ $Ny_{i,j}$ ’ is not being used in any of the equations. Was this parameter used only for determination of sample size? If not, the stakeholder is requested to incorporate this parameter in all applicable equation(s).

To facilitate the consideration of your methodology at MP 83, kindly provide your clarifications as soon as possible but no later than **31 July 2020** (please refer to paragraph 26 of the procedure “Development, revision and clarification of baseline and monitoring methodologies and methodological tools” version 02.1 at <https://cdm.unfccc.int/Reference/Procedures/index.html#meth>).

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG"
01.0	4 July 2013	<p>Initial publication. This document supersedes and replaces the following documents:</p> <ul style="list-style-type: none"> • Proposed New Methodology Meth Panel summary recommendation to the Executive Board (F-CDM-NMSUMmp) (version 01.1) • Recommendation form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1) • Proposed New A/R Methodology AR WG summary recommendation to the Executive Board (F-CDM-AR-NMSUMar) (Version 02.1) • Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (version 01.1) • CCS WG summary recommendation form for proposed new methodology for CCS CDM project activities (F-CDM-CCS-NMSUM) (Version 01.0)

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