CLEAN DEVELOPMENT MECHANISM

CDM-MP77-A12

Draft Small-scale Methodology

AMS-II.E.: Energy efficiency and fuel switching measures for buildings

Version 11.0

Sectoral scope(s): 03

United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. The Executive Board of the clean development mechanism (CDM) (hereinafter referred to as the Board), at its one-hundredth meeting (EB 100), while considering the new methodological tool "TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional buildings" requested the Methodologies Panel (MP) to propose revisions to the following methodologies to allow application of the new tool:

   (a) "AM0091: Energy efficiency technologies and fuel switching in new and existing buildings";

   (b) "AMS-II.E: Energy efficiency and fuel switching measures for buildings";

   (c) "AMS-II.Q: Energy efficiency and/or energy supply projects in commercial buildings";

   (d) "AMS-III.AE: Energy efficiency and renewable energy measures in new residential buildings".

2. Purpose

2. The purpose of this revision is to incorporate the elements from "TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional buildings" to allow its application to the methodology.

3. Key issues and proposed solutions

3. The current version of the methodology does not contain detailed guidance on how to determine the emission reductions due to energy efficiency measures. The proposed revision includes the provisions and equations required to calculate emission reductions based on simplified, reliable and conservative approaches to determine standardized baselines.

4. Impacts

4. The revision of the methodology to include the provisions to apply TOOL31 will provide one additional option to calculate emission reductions projects involving energy efficiency measures in buildings.

5. Subsequent work and timelines

5. The MP, at its 77th meeting, agreed on the draft revised methodology to seek inputs. If inputs are received, the inputs will be taken into account when preparing the final recommendation to the Board. If no inputs are received, the methodology is recommended by the MP for consideration by the Board at its one-hundred-first meeting. No further work is envisaged.

6. Recommendations to the Board

6. If no inputs are received during the call for public input, the MP recommends that the Board adopt this final draft methodology, to be made effective at the time of the Board's approval. If inputs are received, this section is not applicable.

TABLE OF CONTENTS **Page**

1. Introduction

1. The following table describes the key elements of the methodology:

Table 1. Methodology key elements

Typical project(s)	Installation of, or replacement or retrofit of, existing equipment with energy efficiency (e.g. efficient appliances, better insulation) and optional fuel switching (e.g. switch from oil to gas) measures in residential, commercial or institutional buildings
Type of GHG emissions mitigation action	Energy efficiency: Electricity and/or fuel savings through energy efficiency improvement. Optionally, use of less-carbon-intensive fuel

2. Scope, applicability, and entry into force

2.1. Scope

2. This category comprises any energy efficiency and fuel switching measure implemented at a single building, such as a commercial, institutional or residential building, or group of similar buildings, such as a school, district or university.

3. This category covers project activities aimed primarily at energy efficiency.~~; a project activity that involves primarily fuel switching falls into category III.B.~~[1] Examples include technical energy efficiency measures (such as efficient appliances, better insulation and optimal arrangement of equipment) and fuel switching measures (such as switching from oil to gas).

4. The technologies may replace existing equipment or be installed in new facilities~~.~~ and shall not transferred from another project activity.

5. The aggregate energy savings of a single project may not exceed the equivalent of 60 GWh per year.

2.2. Applicability

6. This category is applicable to project activities where it is possible to directly measure and record the energy use within the project boundary (e.g. electricity and/or fossil fuel consumption).

7. This category is applicable to project activities where the impact of the measures implemented (improvements in energy efficiency) by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity (signal to noise ratio).

[1] Project activities that involves primarily fuel switching falls into category III.B; therefore~~Thus~~, fuel-switching measures that are part of a package of energy efficiency measures at a single location may be part of a project activity included in this project category.

2.3. Entry into force

8. The date of entry into force is the date of the publication of the EB XX meeting report on DD Month YYYY.

2.4. Applicability of sectoral scopes

9. For validation and verification of CDM projects and programme of activities by a designated operational entity (DOE) using this methodology, application of sectoral scope 03 is mandatory.

3. Normative references

10. Project participants shall take into account the ~~general guidance to the methodologies~~ General guidelines for SSC CDM methodologies, ~~abbreviations~~Attachment B to Appendix B,~~information on additionality~~ "TOOL21: Demonstration of additionality of small-scale project activities" and ~~general guidance on leakage~~ "TOOL22: Leakage in biomass small-scale project activities" provided at <http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html>.

11. This methodology also refers to the latest approved versions of the following approved methodology(ies):

(a) ~~"ACM009: Fuel switching from coal or petroleum fuel to natural gas";~~

(b) ~~"AMS-I.D.: Grid connected renewable electricity generation~~"TOOL07: Tool to calculate the emission factor for an electricity system";

(c) "TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional buildings";

(d) "AMS-III.B.: Switching fossil fuels".

4. Definitions

12. The definitions contained in the Glossary of CDM terms shall apply.

5. Baseline methodology

5.1. Project boundary

13. The project boundary is the physical, geographical site of the building(s).

5.2. Baseline

14. The energy baseline consists of the energy use of the existing equipment that is replaced in the case of retrofit measures and of the facility that would otherwise be built in the case of a new facility.

15. Each energy form in the emission baseline is multiplied by an emission coefficient. For the electricity displaced, the emission coefficient is calculated in accordance with provisions under the "TOOL07: Tool to calculate the emission factor for an electricity

system"~~category I.D~~. For fossil fuels, the IPCC default values for emission coefficients may be used.

16. For project activities that apply a standardized baseline that standardizes the specific CO_2 emissions based on the "TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional buildings", emission reductions are determined separately for new buildings and for existing buildings[2] based on the equation below:

$$ER_y = BE_y - PE_y \quad \text{Equation (1)}$$

Where:

ER_y	=	Emission reductions in year *y* (tCO_2e)
BE_y	=	Baseline emissions in year *y* (tCO_2e)
PE_y	=	Project emissions in year *y* (tCO_2e)

17. BE_y represents the energy that would have been consumed by buildings from the same category *i* and located in the same geographical scope in the absence of the project, and is determined as:

$$BE_y = \sum_i \sum_j \left(SE_{CO2,Top20\%,i} \times GFA_{j,i,y}\right) \quad \text{Equation (2)}$$

Where:

$SE_{CO2,Top20\%,i}$	=	Average specific CO_2 emissions of the top 20 per cent performing building units in building unit category *i* included in the sample over the applicable data coverage period ($tCO_2/(m^2.year)$). This parameter is determined following the "TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional buildings".
$GFA_{j,i,y}$	=	Gross floor area of the project building unit *j* in building unit category *i* in year *y* (m^2)
j	=	Building units included in the project activity
i	=	Building unit categories

18. PE_y represents the emissions associated with the consumption of energy by the project buildings in the project scenario, and is determined as:

$$PE_y = \sum_i \sum_j \left(\frac{EC_{j,i,y} \times EF_{elec,y}}{1 - TDL_y}\right) + \left(FC_{k,j,i,y} \times NCV_k \times EF_{CO2,k}\right) \quad \text{Equation (3)}$$

[2] The definitions of cohort of new buildings and cohort of existing buildings from the tool shall apply.

Where:

$FC_{k,j,i,y}$	=	Fossil fuel type *k* consumed by the project building unit *j* in building unit category *i* in year *y* (mass or volume units)
NCV_k	=	Net calorific value of the fossil fuel type *k* (GJ/mass or volume units)
$EF_{CO2,k}$	=	CO_2 emission factor of the fossil fuel type *k* (tCO_2/GJ)
$EC_{j,i,y}$	=	Electricity consumed by the project building unit *j* in building unit category *i* in year *y* (MWh)
$EF_{elec,y}$	=	Emission factor of the electric grid supplying electricity to the project building unit *j* in building unit category *i* (tCO_2e/MWh)
TDL_y	=	Average technical transmission and distribution losses for providing electricity to the grid to which the project building unit *j* in building unit category *i* is connected

19. The parameters $EC_{j,i,y}$, $FC_{k,j,i,y}$ and $GFA_{j,i}$ can be determined by sampling, with 90/10 confidence/precision levels in accordance with the latest version of the standard "Sampling and surveys for CDM project activities and programme of activities".

5.3. Leakage

20. If the energy efficiency technology is equipment transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered.

6. Monitoring methodology

21. In the case of retrofit measures, monitoring shall consist of:

(a) Documenting the specifications of the equipment replaced;

(b) Calculating the energy savings due to the measures installed.

22. In the case of a new facility, monitoring shall consist of:

(a) Metering the energy use of the building(s);

(b) Calculating the energy savings of the new building(s).

23. For project activities that apply a standardized baseline that standardizes the specific CO_2 emissions based on the TOOL31, the parameters listed in the tables below and the provisions on data and parameters monitored in the tools referred to in this methodology apply.

Data / Parameter table 1.

Data / Parameter:	$GFA_{j,i,y}$
Data unit:	m^2
Description:	Gross floor area of the project building unit j in building unit category *i* in year *y*

Source of data:	<table><tr><th>Data source</th><th>Conditions for using the data source</th></tr><tr><td>1. Building plan</td><td>Preferred source</td></tr><tr><td>2. On-site measurement</td><td>If the building plan is not available</td></tr></table>
Measurement procedures (if any):	-
Monitoring frequency:	The parameter shall be determined before the start of the building's construction
QA/QC procedures:	When determined through the building plan, confirm on-site that building geometry represented in the plan is accurate
Any comment:	When determined using sampling, the requirements of the latest version of the standard "Sampling and surveys for CDM project activities and programme of activities" shall be followed This parameter shall be monitored only when emission reductions are determined through the application of a standardized baseline that standardizes the specific CO_2 emissions of buildings

Data / Parameter table 2.

Data / Parameter:	$EC_{j,i,y}$
Data unit:	MWh
Description:	Electricity consumed by the project building unit *j* in building unit category *i* in year y (MWh)
Source of data:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
Measurement procedures (if any):	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" When applying the tool, requirements for $EG_{PJ,grid,y}$ specified in the tool should apply to electricity consumed form the grid ($EC_{j,i,y}$)
Monitoring frequency:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
QA/QC procedures:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
Any comment:	When determined using sampling, the requirements of the latest version of the standard "Sampling and surveys for CDM project activities and programme of activities" shall be followed. Values shall be cross-checked against electricity purchase receipts/invoices

Data / Parameter table 3.

Data / Parameter:	$EF_{elec,y}$
Data unit:	tCO_2e/MWh
Description:	Emission factor of the electric grid supplying electricity to the project building unit j in building unit category i
Source of data:	As per the latest version of the "TOOL07: Tool to calculate the emission factor for an electricity system"
Measurement procedures (if any):	As per the latest version of the "TOOL07: Tool to calculate the emission factor for an electricity system"
Monitoring frequency:	As per the latest version of the "TOOL07: Tool to calculate the emission factor for an electricity system" If the grid emission factor is fixed ex-ante, no monitoring is required
QA/QC procedures:	As per the latest version of the "TOOL07: Tool to calculate the emission factor for an electricity system"
Any comment:	-

Data / Parameter table 4.

Data / Parameter:	TDL_y
Data unit:	%
Description:	Average technical transmission and distribution losses for providing electricity to the grid to which the project building unit *j* in building unit category i is connected
Source of data:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
Measurement procedures (if any):	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
Monitoring frequency:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
QA/QC procedures:	As per the latest version of the "TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation"
Any comment:	-

Data / Parameter table 5.

Data / Parameter:	$FC_{k,j,i,y}$
Data unit:	Mass or volume units
Description:	Fossil fuel type *k* consumed by the project building unit *j* in building unit category *i* in year *y* (mass or volume units)
Source of data:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion". When applying the tool, requirements for $FC_{i,j,y}$ should be followed

Measurement procedures (if any):	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Monitoring frequency:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
QA/QC procedures:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion". Values shall be cross-checked against fuel purchase receipts/invoices
Any comment:	-

Data / Parameter table 6.

Data / Parameter:	NCV_k
Data unit:	GJ/mass or volume units
Description:	Net calorific value of the fossil fuel type *k*
Source of data:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion". When applying the tool, requirements for NCV_k should be followed
Measurement procedures (if any):	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Monitoring frequency:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
QA/QC procedures:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Any comment:	-

Data / Parameter table 7.

Data / Parameter:	$EF_{CO2,k}$
Data unit:	tCO_2/GJ
Description:	$EF_{CO2,k}$: CO_2 emission factor of the fossil fuel type *k*
Source of data:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Measurement procedures (if any):	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Monitoring frequency:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
QA/QC procedures:	As per the latest version of the "TOOL03: Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion"
Any comment:	-

6.1. Project activity under a programme of activities

24. The following conditions apply for use of this methodology in a project activity under a programme of activities:

(a) In case the project activity involves fossil fuel switching measures leakage resulting from fuel extraction, processing, liquefaction, transportation, re-

gasification and distribution of fossil fuels outside of the project boundary shall be considered. The guidance provided in the leakage section of ACM009 as in annex 1the appendix of this document shall be followed in this regard;

(b) In case the project activity involves the replacement of equipment, and the leakage effect of the use of the replaced equipment in another activity is neglected because the replaced equipment is scrapped, an independent monitoring of scrapping of replaced equipment needs to be implemented. The monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose, scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified.

Appendix. Guidance on leakage below concerns for project activity under a programme of activities

Leakage

Leakage may result from fuel extraction, processing, liquefaction, transportation, re-gasification and distribution of fossil fuels outside of the project boundary. This includes mainly fugitive CH4 emissions and CO2 emissions from associated fuel combustion and flaring. In this methodology, the following leakage emission sources shall be considered:

Fugitive CH4 emissions associated with fuel extraction, processing, liquefaction, transportation, re-gasification and distribution of natural gas used in the project plant and fossil fuels used in the grid in the absence of the project activity;

In the case LNG is used in the project plant: CO2 emissions from fuel combustion/electricity consumption associated with the liquefaction, transportation, re-gasification and compression into a natural gas transmission or distribution system.

Thus, leakage emissions are calculated as follows:

$$LE_y = LE_{CH4,y} + LE_{LNG,CO2,y} \quad (1)$$

Where:

LE_y	Leakage emissions during the year y in t CO_2e
$LE_{CH4,y}$	Leakage emissions due to fugitive upstream CH_4 emissions in the year y in t CO_2e
$LE_{LNG,CO2,y}$	Leakage emissions due to fossil fuel combustion / electricity consumption associated with the liquefaction, transportation, re-gasification and compression of LNG into a natural gas transmission or distribution system during the year y in t CO_2e

Note that to the extent that upstream emissions occur in Annex I countries that have ratified the Kyoto Protocol, from 1 January 2008 onwards, these emissions should be excluded, if technically possible, in the leakage calculations.

Fugitive methane emissions

For the purpose of determining fugitive methane emissions associated with the production – and in case of natural gas, the transportation and distribution of the fuels – project participants should multiply the quantity of natural gas consumed in all element processes i with a methane emission factor for these upstream emissions (EFNG,upstream,CH4), and subtract for all fuel types k which would be used in the absence of the project activity the fuel quantities multiplied with respective methane emission factors (EFk,upstream,CH4), as follows:

$$LE_{CH4,y} = \left[FF_{project,y} \cdot NCV_{NG,y} \cdot EF_{NG,upstream,CH4} - \sum_k FF_{baseline,k,y} \cdot NCV_k \cdot EF_{k,upstream,CH4} \right] \cdot GWP_{CH4} \quad (2)$$

with

$$FF_{project,y} = \sum_i FF_{project,i,y} \quad \text{and} \quad (3)$$

$$FF_{baseline,k,y} = \sum_i FF_{baseline,i,k,y} \quad (4)$$

Where:

$L_{CH4,y}$	Leakage emissions due to upstream fugitive CH_4 emissions in the year *y* in t CO_2e
$FF_{project,y}$	Quantity of natural gas combusted in all element processes during the year *y* in m^3
$FF_{project,i,y}$	Quantity of natural gas combusted in the element process *i* during the year *y* in m^3
$NCV_{NG,y}$	Average net calorific value of the natural gas combusted during the year *y* in MWh/m^3
$EF_{NG,upstream,CH4}$	Emission factor for upstream fugitive methane emissions from production, transportation and distribution of natural gas in t CH_4 per MWh fuel supplied to final consumers
$FF_{baseline,k,y}$	Quantity of fuel type *k* (a coal or petroleum fuel type) that would be combusted in the absence of the project activity in all element processes during the year *y* in a volume or mass unit
$FF_{baseline,i,k,y}$	Quantity of fuel type *k* (a coal or petroleum fuel type) that would be combusted in the absence of the project activity in the element process *i* during the year *y* in a volume or mass unit
NCV_k	Average net calorific value of the fuel type *k* (a coal or petroleum fuel type) that would be combusted in the absence of the project activity during the year *y* in MWh per volume or mass unit
$EF_{k,upstream,CH4}$	Emission factor for upstream fugitive methane emissions from production of the fuel type k (a coal or petroleum fuel type) in t CH_4 per MWh fuel produced
GWP_{CH4}	Global warming potential of methane valid for the relevant commitment period

Where reliable and accurate national data on fugitive CH4 emissions associated with the production, and in case of natural gas, the transportation and distribution of the fuels is available, project participants should use this data to determine average emission factors by dividing the total quantity of CH4 emissions by the quantity of fuel produced or supplied respectively. Where such data is not available, project participants may use the default values provided in Table 1 below. In this case, the natural gas emission factor for the location of the project should be used, except in cases where it can be shown that the relevant system element (gas production and/or processing/transmission/distribution) is predominantly of recent vintage and built and operated to international standards, in which case the US/Canada values may be used.

Note that the emission factor for fugitive upstream emissions for natural gas (EFNG,upstream,CH4) should include fugitive emissions from production, processing, transport

and distribution of natural gas, as indicated in the Table 1 below. Note further that in case of coal the emission factor is provided based on a mass unit and needs to be converted in an energy unit, taking into account the net calorific value of the coal.

Table 1. Default emission factors for fugitive CH4 upstream emissions

Activity	Unit	Default emission factor	Reference for the underlying emission factor range in Volume 3 of the *1996 Revised IPCC Guidelines*
Coal			
Underground mining	t CH4 / kt coal	13.4	Equations 1 and 4, p. 1.105 and 1.110
Surface mining	t CH4 / kt coal	0.8	Equations 2 and 4, p.1.108 and 1.110
Oil			
Production	t CH4 / PJ	2.5	Tables 1-60 to 1-64, p. 1.129 - 1.131
Transport, refining and storage	t CH4 / PJ	1.6	Tables 1-60 to 1-64, p. 1.129 - 1.131
Total	t CH4 / PJ	4.1	
Natural gas			
USA and Canada			
Production	t CH4 / PJ	72	Table 1-60, p. 1.129
Processing, transport and distribution	t CH4 / PJ	88	Table 1-60, p. 1.129
Total	t CH4 / PJ	160	
Eastern Europe and former USSR			
Production	t CH4 / PJ	393	Table 1-61, p. 1.129
Processing, transport and distribution	t CH4 / PJ	528	Table 1-61, p. 1.129
Total	t CH4 / PJ	921	
Western Europe			
Production	t CH4 / PJ	21	Table 1-62, p. 1.130
Processing, transport and distribution	t CH4 / PJ	85	Table 1-62, p. 1.130
Total	t CH4 / PJ	105	
Other oil exporting countries / Rest of world			
Production	t CH4 / PJ	68	Table 1-63 and 1-64, p. 1.130 and 1.131
Processing, transport and distribution	t CH4 / PJ	228	Table 1-63 and 1-64, p. 1.130 and 1.131
Total	t CH4 / PJ	296	

Note: The emission factors in this table have been derived from IPCC default Tier 1 emission factors provided in Volume 3 of the 1996 Revised IPCC Guidelines, by calculating the average of the provided default emission factor range.

CO2 emissions from LNG

Where applicable, CO2 emissions from fuel combustion/electricity consumption associated with the liquefaction, transportation, re-gasification and compression of LNG into a natural gas transmission or distribution system (LELNG,CO2,y) should be estimated by multiplying the quantity of natural gas combusted in the project with an appropriate emission factor, as follows:

$$LE_{LNG,CO2,y} = FF_{project,y} \cdot EF_{CO2,upstream,LNG} \quad (5)$$

Where:

$LE_{LNG,CO2,y}$ Leakage emissions due to fossil fuel combustion / electricity consumption associated with the liquefaction, transportation, re-gasification and compression of LNG into a natural gas transmission or distribution system during the year y in t CO_2e

~~$FF_{project,y}$~~	~~Quantity of natural gas combusted in all element processes during the year *y* in m³~~
~~$EF_{CO2,upstream,LNG}$~~	~~Emission factor for upstream CO_2 emissions due to fossil fuel combustion / electricity consumption associated with the liquefaction, transportation, re-gasification and compression of LNG into a natural gas transmission or distribution system~~

~~Where reliable and accurate data on upstream CO2 emissions due to fossil fuel combustion / electricity consumption associated with the liquefaction, transportation, re-gasification and compression of LNG into a natural gas transmission or distribution system is available, project participants should use this data to determine an average emission factor. Where such data is not available, project participants may assume a default value of 6 t CO2/TJ as a rough approximation.~~

- - - - -

Document information*

Version	*Date*	*Description*
11.0	18 October 2018	MP 77 Annex 12 A call for public input will be issued for this draft document. If no public inputs are received, this draft document will be considered by the Board at EB 101. Revision to include TOOL31: Determination of standardized baselines for energy efficiency measures in residential, commercial and institutional building.
10.0	02 November 2007	EB 35, Annex 31 To clarify that the methodologies are only applicable to project activities where it is possible to directly measure and record the energy use within the project boundary (e.g., electricity and/or fossil fuel consumption) and where the impact of the measures implemented by the project activity to improve energy efficiency can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity (e.g. changes in ambient conditions).
09.0	27 July 2007	EB 33, Annex 28 Revision of the approved small-scale methodology AMS-II.E to allow for its application under a programme of activities (PoA).
08.0	23 December 2006	EB 28, Annex 30 To broaden its applicability to include retrofit project activities, and to exclude technical line losses from the calculation of the emission factor.

* This document, together with the 'General Guidance' and all other approved SSC methodologies, was part of a single document entitled: Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM project activities until version 07. After version 07 the document was divided into separate documents: 'General Guidance' and separate approved small-scale methodologies (AMS).

History of the document: Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM project activities

Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM project activities contained both the General Guidance and Approved Methodologies until version 07. After version 07 the document was divided into separate documents: 'General Guidance' and separate approved small-scale methodologies (AMS).

Version	*Date*	*Description*
07	25 November 2005	EB 22, Para. 59 References to "non-renewable biomass" in Appendix B deleted.
06	20 September 2005	EB 21, Annex 22 Guidance on consideration of non-renewable biomass in Type *i*

Version	*Date*	*Description*
		methodologies, thermal equivalence of Type II GWhe limits included.
05	25 February 2005	EB 18, Annex 6 Guidance on 'capacity addition' and 'cofiring' in Type *i* methodologies and monitoring of methane in AMS-III.D included.
04	22 October 2004	EB 16, Annex 2 AMS-II.F was adopted, leakage due to equipment transfer was included in all Type *i* and Type II methodologies.
03	30 June 2004	EB 14, Annex 2 New methodology AMS-III.E was adopted.
02	28 November 2003	EB 12, Annex 2 Definition of build margin included in AMS-I.D, minor revisions to AMS-I.A, AMS-III.D, AMS-II.E.
01	21 January 2003	EB 7, Annex 6 Initial adoption. The Board at its seventh meeting noted the adoption by the Conference of the Parties (COP), by its decision 21/CP.8, of simplified modalities and procedures for small-scale CDM project activities (SSC M&P).

Decision Class: Regulatory
Document Type: Standard
Business Function: Methodology

Keywords: energy efficiency, fuel switching, simplified methodologies, retrofit, type (ii) projects