



Indicative simplified baseline and monitoring methodologies  
for selected small-scale CDM project activity categories

**INDICATIVE SIMPLIFIED BASELINE AND MONITORING METHODOLOGIES FOR  
SELECTED SMALL-SCALE CDM PROJECT ACTIVITY CATEGORIES**

**General guidelines to SSC CDM methodologies**

(Version 14)

1. This appendix contains indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, including recommendations for determining the project boundary, leakage, baseline and monitoring.

2. In accordance with paragraphs 15 and 16 of the simplified modalities and procedures for small-scale CDM project activities (annex II to decision 21/CP.8 contained in document FCCC/CP/2002/7/Add.3), project participants involved in small-scale CDM project activities may propose changes to the simplified baseline and monitoring methodologies specified in this appendix or propose additional project categories for consideration by the Executive Board. Project participants willing to submit a new small-scale project activity category or revisions to a methodology shall make a request in writing to the Board providing information about the technology/activity and proposals on how a simplified baseline and monitoring methodology would be applied to this category. The Board may draw on expertise, as appropriate, in considering new project activity categories and/or revisions of and amendments to simplified methodologies. The Executive Board shall expeditiously, if possible at its next meeting, review the proposed methodology. Once approved, the Executive Board shall amend Appendix B.

1. This document provides general guidelines<sup>1</sup> for applying small-scale CDM methodologies <<http://cdm.unfccc.int/methodologies/SSCmethodologies/index.html>>. The requirements and procedures specified in the methodology have precedence over the requirements specified here.

2. A revision of small-scale methodology or a clarification on a small-scale methodology may be requested following the procedures specified at:  
<<http://cdm.unfccc.int/methodologies/SSCmethodologies/clarifications>>.

3. Eligibility of project activities as small-scale CDM project activities:

(a) A project is eligible as a small-scale project only if ex ante calculations show that emissions reductions do not surpass the applicable SSC thresholds<sup>2</sup> in any year of the crediting period;

(i) For Type I: project participants shall provide proof that the installed capacity of the proposed project activity will not increase beyond 15 MW;

<sup>1</sup> See EB53, Annex 38 “CDM Executive Board decision framework: Decision hierarchy and document types issued by the Board” or its update at:

<<http://cdm.unfccc.int/Reference/Notes/index.html> for the definition of general guidelines>.

<sup>2</sup> See paragraph 28 of Decision 1/CMP.2

<<http://unfccc.int/resource/docs/2006/cmp2/eng/10a01.pdf#page=3>>.



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- (ii) For Type II: project participants shall provide proof that the efficiency improvements do not exceed the equivalent of 60 gigawatt hours per year every year throughout the crediting period;
  - (iii) For Type III: project participants shall provide an estimation of emission reductions of the project activity over the crediting period and proof that the emission reductions every year will not go beyond the limits of 60 ktCO<sub>2</sub>e/y over the entire crediting period.
- (b) The three types of project activities outlined above, are mutually exclusive. In a project activity with more than one component that will benefit from simplified CDM modalities and procedures, each component shall meet the threshold criterion of each applicable type, e.g. for a project with both a renewable energy and an energy efficiency component, the renewable energy component shall meet the criterion for “renewable energy” and the energy efficiency component that for “energy efficiency”;<sup>3</sup>
- (c) The sum of the size of components of a project activity belonging to the same type (capacity for Type I, energy savings for Type II and emission reductions for Type III) should not exceed the limits for small-scale CDM project activities (e.g. the limit for methane recovery component is 60 ktCO<sub>2</sub>e/yr and the limit for the electricity production component is 15 MW output capacity);<sup>4</sup>
- (d) If a project activity goes beyond the limit of its type in any year of the crediting period, the emission reduction that can be claimed by the project activity during this particular year will be capped by the maximum emission reduction estimated in the CDM-SSC-PDD by the project participant for that year during the crediting period.<sup>5</sup>
4. Output capacity of renewable energy equipment: Definition of “maximum output capacity equivalent of up to 15 megawatts (or an appropriate equivalent)”:
- (a) Definition of “maximum output”: “output” is the installed/rated capacity, as indicated by the manufacturer of the equipment<sup>1</sup> or plant, disregarding the actual load factor of the plant;
  - (b) Definition of “appropriate equivalent” of 15 megawatts: Whereas decision 17/CP.7, paragraph 6 (c) (i), refers to megawatts (MW), project proposals may refer to MW(p),<sup>6</sup> MW(e) or MW(th). As MW(e) is the most common denomination, the CDM Executive Board (the Board) has agreed to define MW as MW(e) and otherwise to apply an appropriate conversion factor;

<sup>3</sup> See Annex II paragraph 7 of Decision 4/CMP.1

<http://unfccc.int/resource/docs/2005/cmp1/eng/08a01.pdf#page=30>.

<sup>4</sup> See paragraph 56 of EB 28 <<http://cdm.unfccc.int/EB/028/eb28rep.pdf>>.

<sup>5</sup> See paragraph 58 of EB 20 <<http://cdm.unfccc.int/EB/020/eb20rep.pdf>>.

<sup>6</sup> For solar photovoltaic applications 15 MW(p) may be defined by manufacturers specifications under testing conditions of 1000 W/m<sup>2</sup> & 25 deg C or 600 W/m<sup>2</sup> & 35 deg C.



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- (c) For biomass, biofuel and biogas project activities, the maximal limit of 15 MW(e) is equivalent to 45 MW thermal output of the equipment or the plant (e.g. boilers). For thermal applications of biomass, biofuels or biogas (e.g. the cookstoves), the limit of 45 MWth is the installed/rated capacity of the thermal application equipment or device/s (e.g. biogas stoves). For electrical or mechanical applications, the limit of 15 MW installed/rated output shall be used. In case of cofiring renewable and fossil fuels, the rated capacity of the system when using fossil fuel shall apply;
- (d) For thermal applications of solar energy projects,<sup>7</sup> ‘maximum output’ shall be calculated using a conversion factor of 700 Wth/m<sup>2</sup> of aperture area of glazed flat plate or evacuated tubular collector i.e. eligibility limit in terms of aperture area is 64000 m<sup>2</sup> of the collector. Project participants may also use other conversion factors determined as per the procedures prescribed for ‘equipment performance’ under paragraph 12 below, however it shall be justified why the chosen conversion factor is more appropriate to the project activity.

5. In accordance with paragraph 28 of the simplified modalities and procedures for small-scale CDM project activities, a simplified baseline and monitoring methodology listed in this appendix may be used for a small-scale CDM project activity if project participants are able to demonstrate to a designated operational entity that the project activity would otherwise not be implemented due to the existence of one or more barrier(s) listed in attachment A of Appendix B of 4/CMP.1 Annex II <[http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html)>.

6. For project activities up to 5 megawatts that employ renewable energy as their primary technology and for energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 gigawatt hours per year, simplified modalities for demonstrating additionality has been approved by the Board.<sup>8</sup>

7. For demonstration of additionality, the following documents provide additional guidance or guidelines.

- (a) EB 35, Annex 34 “Non-binding best practice examples to demonstrate additionality for SSC project activities” or its update <[http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html)>;
- (b) EB 50, Annex 13 “Guidelines for objective demonstration and assessment of barriers” or its update <[http://cdm.unfccc.int/Reference/Guidclarif/meth/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/meth/index_guid.html)>.

8. Debundling is defined as the fragmentation of a large project activity into smaller parts. A small-scale project activity that is part of a large project activity is not eligible to use the simplified modalities and procedures for small-scale CDM project activities. Refer to EB 54, Annex 13

<sup>7</sup> This conversion is not applicable for solar thermal parabolic and trough type collectors used for high grade solar thermal energy applications.

<sup>8</sup> See EB 54, Annex 15 “Guidelines for demonstrating additionality of renewable energy projects =< 5 MW and energy efficiency projects with energy savings <= 20 GWH per year or its update <[http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html)>.



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“Guidelines on assessment of de-bundling for SSC project activities” or its update  
<[http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html)>.

9. The appendix reflects the following guidance regarding equipment performance, project boundary, biomass projects, leakage and use of Intergovernmental Panel on Climate Change (IPCC) default values for emission coefficients.

9. Equipment performance: To determine equipment performance, project participants shall use:

- (a) The appropriate value specified in the methodology that is being applied;
- (b) If the value specified in sub-paragraph (a) is not available, the national standard for the performance of the equipment type (project participants shall identify the standard used);
- (c) If the value specified in sub-paragraph (b) is not available, an international standard for the performance of the equipment type, such as International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) standards (project participants shall identify the standard used);
- (d) If a value specified in sub-paragraph (c) is not available, the manufacturer’s specifications provided that they are tested and certified by national or international certifiers.

10. Project participants have the option of using performance data from test results conducted by an independent entity for equipment installed under the project activity.

11. Application of multiple methodologies for a programme of activities (PoA): The Board at its fifty-third meeting approved the combination of approved methodologies AMS-III.R with AMS-I.C for application in CPAs of a PoA. The combination of AMS-III.R and AMS-I.C can be applied in PoAs without each PoA specifically requesting the approval of the combination of these two methodologies from the Board.

12. Project boundary: The project boundary shall be limited to the physical project activity. Project activities that displace energy supplied by external sources shall earn certified emission reductions (CERs) for the emission reductions associated with the reduced supply of energy by those external sources.

13. Biomass projects: In the case of project activities using biomass, emission reductions may only be accounted for the combustion of “renewable biomass”. Refer to EB 23, Annex 18 “Definition of Renewable Biomass” or its update  
<[http://cdm.unfccc.int/EB/023/eb23\\_repan18.pdf](http://cdm.unfccc.int/EB/023/eb23_repan18.pdf)>.

14. Leakage in biomass project activities; Refer to EB 47, Annex 28 “General guidance on leakage in biomass project activities” or its update  
<[http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html)>.

15. In the cases where leakage is to be considered, it shall be considered only within the boundaries of non-Annex I Parties.



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16. In the case of project participants using IPCC default values for emission coefficients, these shall be the most up-to-date values available in the “2006 IPCC Guidelines for National Greenhouse Gas Inventories” and the “Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories”.

17. Monitoring: while monitoring the emission reductions from the small-scale project activity, project participants shall:

- (a) Electronically archive all data collected as part of monitoring for a period of two years from the end of the crediting period;
- (b) Data variables that are most directly related to the emission reductions (e.g. quantity of the fuel inputs, the amount of heat or electricity produced, gas captured) should be measured continuously. Data elements that are generally constant and indirectly related to the emission reductions (e.g. emission factors, calorific value, system efficiencies) should be measured or calculated at least once in an year, unless detailed specifications are provided as part of the indicated methodology;
- (c) Measuring equipment should be certified to national or IEC standards and calibrated according to the national standards and reference points or IEC standards and recalibrated at appropriate intervals according to manufacturer specifications, but at least once in three years;
- (d) The measured data with high levels of uncertainty or without adequate calibration should be compared with location/national data and commercial data to ensure consistency;
- (e) Wherever a statistical sample is proposed for monitoring, the “General guidelines for sampling and surveys for SSC project activities” [http://cdm.unfccc.int/Reference/Guidclarif/ssc/index\\_guid.html](http://cdm.unfccc.int/Reference/Guidclarif/ssc/index_guid.html) shall be referred.

19. In relation to revisions and amendments to simplified baseline and monitoring methodologies contained in Appendix B, revisions shall not affect (a) registered CDM project activities during their crediting period; and (b) project activities that use the previously approved methodology for which requests for registration are submitted before or within eight (8) weeks after the methodology was revised.

18. The revision of an approved SSC methodology or tool referred to in a SSC methodology shall not affect (i) registered CDM project activities during their crediting period; and (ii) project activities that have been published for public comments for validation using the previously approved methodology or tool, so long as the project activity is submitted for registration within 8 months of the date when the revision became effective. (See EB 34, Annex 7 “Revision of an approved small scale methodology by the Executive Board” <http://cdm.unfccc.int/Reference/Procedures/index.html>).

19. Type II and II Greenfield projects (new facilities): may use a Type II and Type III small-scale methodology provided that they can demonstrate that the most plausible baseline scenario for



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this project activity is the baseline provided in the respective Type II and III small-scale methodology.<sup>9</sup> The demonstration should include the assessment of the alternatives of the project activity using the following steps:

**Step 1:**

Identify the various alternatives available to the project proponent that deliver comparable level of service including the proposed project activity undertaken without being registered as a CDM project activity.

**Step 2:**

List the alternatives identified per step 1 in compliance with the local regulations (if any of the identified baseline is not in compliance with the local regulations, then exclude the same from further consideration).

**Step 3:**

Eliminate and rank the alternatives identified in Step 2 taking into account barrier tests specified in attachment A to Appendix B of simplified modalities and procedures of SSC CDM.

**Step 4:**

If only one alternative remains that is:

- Not the proposed project activity undertaken without being registered as a CDM project activity; and
- It corresponds to one of the baseline scenarios provided in the methodology; then the project activity is eligible under the methodology.

If more than one alternatives remain that correspond to the baseline scenarios provided in the methodology, choose the alternative with the least emissions as the baseline.

20. **Retrofit:** For project activities that seek to retrofit or modify an existing unit or equipment, the baseline may refer to the characteristics (i.e. emissions) of the existing unit or equipment only to the extent that the project activity does not increase capacity or output or level of service unless detailed specifications are provided as part of the indicated methodology. For any increase of capacity or output or level of service beyond this range, which is due to the project activity, a different baseline shall apply.

21. **Capacity increase:** Type II and III project activities involving capacity increase may use a Type II and Type III SSC methodology provided that they can demonstrate that the most plausible baseline scenario for the additional (incremental) capacity is the baseline provided in the respective Type II and III small-scale methodology.<sup>10</sup> The demonstration should include the assessment of the alternatives of the project activity using the steps described in the paragraph 25 above.

<sup>9</sup> This paragraph is not applicable to methodologies that only cover existing facilities. Specific procedures for Greenfield project activities provided in the respective methodology have precedence.

<sup>10</sup> The requirements specified in the methodology have precedence.



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22. Lifetime of existing equipments: In case of replacement of existing equipment, project participants shall estimate the point in time where the existing equipment would be replaced in the absence of the project activity in accordance with the latest version of “Tool to determine the remaining lifetime of equipment”.
23. For household devices/appliances, the remaining lifetime may be disregarded.
24. For guidance on consideration of national policies and circumstances in baseline scenarios EB 22, Annex 3 “Additional clarifications regarding the treatment of national/sectoral policies and circumstances” or its update shall be referred.
25. Definition of Natural Gas: For the methodologies involving use of natural gas the following definition of natural gas applies: “Natural gas is defined as a gas which consists primarily of methane and which is generated from (i) Natural gas fields (non-associated gas), (ii) Associated gas found in oil fields. It may be blended up to 1% on a volume basis with gas from other sources, such as, *inter alia*, biogas generated in biodigesters, gas from coal mines, gas which is gasified from solid fossil fuels, etc.
26. For CDM-related terminology, see CDM Glossary of Terms <[http://cdm.unfccc.int/Reference/Guidclarif/glos\\_CDM.pdf](http://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf)>.

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**History of the document**

Version	Date	Nature of revision
14	EB 55, Annex # 30 July 2010	To update the document to reflect the latest decisions of the Board including; <ul style="list-style-type: none"> <li>• Eligibility of SSC CDM project activities;</li> <li>• Simplified modalities for demonstrating additionality for very small CDM project activities;</li> <li>• Non-binding best practice examples to demonstrate additionality for SSC project activities;</li> <li>• Guidelines for objective demonstration and assessment of barriers;</li> <li>• Guidelines on assessment of de-bundling for SSC project activities;</li> <li>• Application of multiple methodologies for a PoA;</li> <li>• Definition of Renewable Biomass;</li> <li>• Effect of the revision of an approved SSC methodology or tool (corrected);</li> <li>• Definition of Natural Gas;</li> <li>• Reference to CDM Glossary of Terms.</li> </ul>
13	EB 54, Annex 14 28 May 2010	Revised guidelines for Type II and Type III Greenfield and capacity addition projects; Guidelines on lifetime of equipment revised to refer to Tool to determine the remaining lifetime of equipment.
12.1	EB 50, para. 51 16 October 2009	The Board agreed to approve the general guidelines for sampling and surveys for SSC project activities. The Board requested the secretariat to update the relevant sections of general guidance to SSC methodologies to reflect the approval of this guideline. As a consequence the following sentence on page 3 was deleted: “12. (e) the sample should be representative of the population and should have a minimum level of confidence of one times the standard deviation (one sigma), unless detailed specifications are provided as part of the indicated methodology.”
12	EB 41, Annex 20 02 August 2008	Additional guidance on baseline for Type II Greenfield projects (new facilities), retrofit of existing equipment and capacity increase, consideration of lifetime of existing equipment, consideration of national policies in the baseline added.
11	EB 35, Annex 35 19 October 2007	Additional guidance to expand the applicability of all approved Type III methodologies to include Greenfield projects (new facilities).
10	EB 26, Annex 27 29 September 2006	General guidance on conversion factor for solar collectors to calculate output capacity from the area.
09	EB 25, Annex 32 21 July 2006	Revised general guidance on output capacity of renewable based energy generating equipment.
08	EB 23, Annex 33 24 February 2006	General guidance on monitoring from the simplified modalities and procedures for small-scale CDM project activities.

\* This document, together with all 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.





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**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	Nature of revision
07	EB 22, Para. 59 25 November 2005	References to "non-renewable biomass" in Appendix B deleted.
06	EB 21, Annex 22 20 September 2005	Guidance on consideration of non-renewable biomass in Type I methodologies, thermal equivalence of Type II GWhe limits included.
05	EB 18, Annex 6 25 February 2005	Guidance on 'capacity addition' and 'cofiring' in Type I methodologies and monitoring of methane in AMS III.D included.
04	EB 16, Annex 2 22 October 2004	AMS II.F was adopted, leakage due to equipment transfer was included in all Type I and Type II methodologies.
03	EB 14, Annex 30 June 2004	New methodology AMS III.E was adopted.
02	EB 12, Annex 2 28 November 2003	Definition of build margin included in AMS I.D, minor revisions to AMS I.A, AMS III.D, AMS II.E.
01	EB 7, Annex 6 21 January 2003	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).
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Guideline <b>Business Function:</b> Methodology		