

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

TYPE II - ENERGY EFFICIENCY IMPROVEMENT PROJECTS

Follow the link for [General guidance](#) / [Abbreviations](#) / [Full version of appendix B](#)

II.D. Energy efficiency and fuel switching measures for industrial facilities

Technology/measure

56. This category comprises any energy efficiency and fuel switching measure implemented at a single industrial facility. This category covers project activities aimed primarily at energy efficiency; a project activity that involves primarily fuel switching falls into category III.B.⁹ Examples include energy efficiency measures (such as efficient motors), fuel switching measures (such as switching from steam or compressed air to electricity) and efficiency measures for specific industrial processes (such as steel furnaces, paper drying, tobacco curing, etc.). The measures may replace existing equipment or be installed in a new facility. The aggregate energy savings of a single project may not exceed the equivalent of 15 GWh per year.

Boundary

57. The project boundary is the physical, geographical site of the industrial facility, processes or equipment that are affected by the project activity.

Baseline

58. 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. In both cases, the electricity component of the energy baseline is adjusted for technical transmission and distribution losses for the electrical grid serving the industrial facility.

59. Each energy form in the emission baseline is multiplied by an emission coefficient (in kg CO₂equ/kWh). For the electricity displaced, the emission coefficient is calculated in accordance with provisions or paragraphs 28 and 29 for category I.D projects. For fossil fuels, the IPCC default values for emission coefficients may be used.

Leakage

60. If the energy efficiency technology is equipment transferred from another activity, leakage calculation is required.

Monitoring

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

- (a) Documenting the specifications of the equipment replaced;
- (b) Metering the energy use of the industrial facility, processes or the equipment affected by the project activity;

⁹ 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.

Appendix B of the simplified modalities and procedures for small-scale CDM project activities

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II.D. Energy efficiency and fuel switching measures for industrial facilities(cont.)

- (c) Calculating the energy savings using the metered energy obtained from sub-paragraph (b).
- 62. In the case of a new facility, monitoring shall consist of:
 - (a) Metering the energy use of the equipment installed;
 - (b) Calculating the energy savings due to the equipment installed.
- 63. Published values for technical transmission and distribution losses may be used. Alternatively, technical transmission and distribution losses for the grid that supplies the industrial facility may be monitored.

Appendix B¹³ of the simplified modalities and procedures for small-scale CDM project activities

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

B. General guidance

91. 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.

92. 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.

93. 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 this appendix.

94. 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.

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

- (a) The appropriate value specified in appendix B;
- (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.

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

¹³ This appendix has been developed in accordance with the simplified modalities and procedures for small-scale CDM project activities (contained in annex II to decision 21/CP.8, see document FCCC/CP/2002/7/Add.3) and it constitutes appendix B to that document. For the full text of the annex II to decision 21/CP.8 please see reference/documents section on UNFCCC CDM web site <http://unfccc.int/cdm>).

97. 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.

98. Biomass projects: In the case of project activities using biomass, leakage shall be considered.

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

100. 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 “IPCC Good Practice and Guidance and Uncertainty Management in National Greenhouse Gas Inventories” and the “Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories”. A link providing more updated information on IPCC default values for emission coefficients is available on the page for small-scale CDM project activities on the UNFCCC CDM web site: <http://unfccc.int/cdm/ssc.htm>.

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Attachment A to Appendix B

1. Project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the following barriers:

- (a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;
- (b) Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;
- (c) Barrier due to prevailing practice: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;
- (d) Other barriers: without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.

Appendix B of the simplified modalities and procedures for small-scale CDM project activities

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Attachment B to Appendix B

ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE

<i>Acronyms and abbreviations</i>	
EB	Executive Board
EE	Energy efficiency
CER	Certified emission reduction
CO ₂	Carbon dioxide
BAU	Business as usual
ESCO	Energy service company
GHG	Greenhouse gas
IEC	International Electrotechnical Commission
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
PV	Photovoltaic
T&D	Transmission and distribution
<i>Units of measure</i>	
h	Hour
d	Day
y	Year
k	Kilo (10 ³)
M	Mega (10 ⁶)
G	Giga (10 ⁹)
T	Tera (10 ¹²)
g	Gramme
W	Watt
m	Metre
J	Joule