

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

**TYPE I - RENEWABLE ENERGY PROJECTS**

*Note: Categories I.A, I.B and I.C involve renewable energy technologies that supply electricity, mechanical and thermal energy, respectively, to the user directly. Renewable energy technologies that supply electricity to a grid fall into category I.D.*

Follow the link for [Full version of appendix B \(http://cdm.unfccc.int/Projects/pac/ssclistmeth.pdf\)](http://cdm.unfccc.int/Projects/pac/ssclistmeth.pdf) to find [General guidance](#) / [Abbreviations](#)

***I.C. Thermal energy for the user***

**Technology/measure**

1. This category comprises renewable energy technologies that supply individual households or users with thermal energy that displaces fossil fuel or non-renewable sources of biomass. Upgrading of existing equipment is not allowed. Examples include solar thermal water heaters and dryers, solar cookers, energy derived from biomass for water heating, space heating, or drying, and other technologies that provide thermal energy that displaces fossil fuel. Biomass-based co-generating systems that produce heat and electricity for use on-site are included in this category.
2. Where generation capacity is specified by the manufacturer, it shall be less than 15MW.
3. For co-generation systems and/or co-fired systems to qualify under this category, the energy output shall not exceed 45 MW<sub>thermal</sub>. E.g., for a biomass based co-generating system the rating for all the boilers combined shall not exceed 45 MW<sub>thermal</sub>.

**Boundary**

4. The physical, geographical site of the renewable energy generation delineates the project boundary.

**Baseline**

5. For renewable energy technologies that displace technologies using fossil fuels, the simplified baseline is the fuel consumption of the technologies that would have been used in the absence of the project activity times an emission coefficient for the fossil fuel displaced. IPCC default values for emission coefficients may be used.
6. For renewable energy technologies that displace non-renewable sources of biomass, the simplified baseline is the non-renewable sources of biomass consumption of the technologies times an emission coefficient for the non-renewable sources of biomass displaced. IPCC default values for emission coefficients may be used.
7. For renewable energy technologies that displace electricity the simplified baseline is the electricity consumption times the relevant emission factor calculated as described in category I.D, paragraphs 6 and 7.

**Leakage**

8. If the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered.

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

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#### *I.C. Thermal energy for the user (Cont.)*

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#### **Monitoring**

9. Monitoring shall consist of:

(a) Metering the energy produced by a sample of the systems where the simplified baseline is based on the energy produced multiplied by an emission coefficient.

OR

(b) Metering the thermal and electrical energy generated for co-generation projects. In the case of co-fired plants, the amount of fossil fuel input shall be monitored;

OR

(c) If the emissions reduction per system is less than 5 tonnes of CO<sub>2</sub> a year:

- (i) Recording annually the number of systems operating (evidence of continuing operation, such as on-going rental/lease payments could be a substitute); and
- (ii) Estimating the annual hours of operation of an average system, if necessary using survey methods. Annual hours of operation can be estimated from total output (e.g. tonnes of grain dried) and output per hour if an accurate value of output per hour is available.