

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.B. Mechanical energy for the user

Technology/measure

1. This category comprises renewable energy generation units that supply individual households or users with a small amount of mechanical energy. Upgrading of existing equipment is not allowed. These units include technologies such as hydropower, wind power, and other technologies that provide mechanical energy, all of which is used on-site by the household or user, such as wind-powered pumps, solar water pumps, water mills and wind mills.
2. Where generation capacity is specified, it shall be less than 15MW. If the generation capacity is not specified, the estimated diesel-based electricity generating capacity that would be required to provide the same service or mechanical energy shall be less than 15 MW. In the case of irrigation where diesel-fuelled pumps are used directly, the cumulative rating of diesel-fuelled pumps shall not exceed 15 MW. The size of a diesel-based generator or a diesel pump that would be required shall be justified.
3. If the unit added has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires [non-] renewable biomass and fossil fuel, the capacity of the entire unit shall not exceed the limit of 15MW.

Boundary

4. The physical, geographical site of the renewable energy technology and the equipment that uses the mechanical energy produced delineates the project boundary.

Baseline

5. The simplified baseline is the estimated emissions due to serving the same load with a diesel generator consumption saved times the emission coefficient for diesel. The diesel emissions displaced annually are calculated either as:

(a) The power requirements times hours of operation per year times the emission factor for diesel generator systems in Table I.D.

OR

(b) The diesel fuel consumption per hour times hours of operation per year times the default value for the emission coefficient for diesel fuel (3.2 kg CO₂ per kg of diesel fuel).

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

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I.B. Mechanical energy for the user (Cont.)

Leakage

6. 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.

Monitoring

7. Monitoring shall consist of:
 - (a) Recording annually the number of systems operating (evidence of continuing operation, such as on-going rental/lease payments could be a substitute); and
 - (b) Estimating the annual hours of operation for the equipment that uses the mechanical energy produced, if necessary using sampling methods. Annual hours of operation can be estimated from total output (tonnes of grain milled) and output per hour if an accurate value of output per hour is available.
8. In the case of co-fired and hybrid systems, the amount of fossil fuel input shall be monitored.