



**CDM: Recommendation Form for Small Scale Methodologies
(version 01)**

(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)

<i>Date of SSC WG meeting:</i>	21–24 September 2009, SSC WG 22
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Clarification on the 15 MW eligibility limit for small-scale renewable energy projects
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-I.D
<i>Name of the authors of the query:</i>	Mr. Suchindra Institution: Soham Renewable Energy India Private Limited suchindra@sohamenergy.in

Summary of the query:

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

We refer to the small scale methodology A.M.S I.D. As per the methodology, the eligibility limit for a small-scale CDM project activity is 15 MWe. We also refer to the clarification No. SSC_314 provided by the SSWG for a similar query. We seek a further level of clarification on our project activity which has the following technical specifications:

Maximum output capacity of the Alternator (Generator): 5000 kW each (3 Nos = 15000 kW)

Maximum output capacity of the Turbine: 5218 kW each (3 Nos = 15654 kW)

In hydro power plant design, generally the maximum output of the turbine will be slightly higher than that of the alternator, to make up for transmission and other losses. In this case, though the mechanical power output capacity of the turbine may be 5218 kW, the electric power output from the alternator would not exceed 5000 kW due to the following reasons:

- The alternator is designed for a maximum electric output of 5000 kW
- There will be some transmission and other losses between the turbine and alternator

Thus, the maximum electric power output of the Turbine and Generator (TG) system cannot be higher than 5000 kW. The manufacturer has endorsed the fact that the project is designed and configured with 3 numbers of turbine-generator sets of 5000 kW capacity each and that the total power output will not exceed beyond 15000 kW or 15 MW. Therefore, the designed capacity of each alternator (generator) restricts the total installed capacity of the project activity to 15 MW.

The SSC WG is requested to clarify:

- Whether the project activity meets the eligibility criteria of the small scale methodology AMS I.D?

The SSC WG is also requested to consider the following inferences arrived out of the above scenario:

- The power output of any Turbine and Generator (TG) system cannot be higher than the rated capacity

of the alternator (Generator).

- In cases where the capacity of the alternator is higher than that of the turbine, the power output of the Turbine and Generator (TG) system cannot be higher than the rated capacity of the turbine.
- Therefore, the maximum capacity of a Turbine and Generator (TG) system may be decided based on the smaller of the rated capacities of the Turbine and Generator.

Recommendation by the SSC WG:

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 42 of the meeting report of the SSC WG 22 (http://cdm.unfccc.int/Panels/ssc_wg).

Answer to authors of query by the SSC WG:

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSC WG noted that in the context of small scale renewable electricity generation (e.g., hydro-electric projects), the difference between the rated turbine output and the rated generator output is small and is mainly due to mechanical losses (shaft and bearing).

Therefore, the SSC WG agreed to clarify that the maximum or rated/installed capacity for a small-scale CDM renewable electricity generation projects involving turbine-generator systems can be based on rated capacity of generator in MW (which is an appropriate equivalent of name plate/rated capacity in MVA times name plate/rated power factor, specified by the manufacturer).



Signature of SSC WG Chair

(Hugh Sealy)

Date: 24/09/2009



Signature of SSC WG Vice-Chair

(Peer Stiansen)

Date: 24/09/2009

Information to be completed by the secretariat

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