# 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)***

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| *Date of SSC WG meeting:* | 11–14 January 2011, SSC WG 29 |
| *Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):* | Revision of AMS-I.D's classification for intermittent and non-dispatchable nature of power generation activities and related combined margin calculation |
| *Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.* | AMS-I.D<br>"Grid connected renewable electricity generation" |
| *Name of the authors of the query:* | Gustavo de Melo Ribeiro<br>Institution: EQAO<br>gustavo.ribeiro@eqao.com.br<br>focalpoint@eqao.com.br |

**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:

Regarding the calculation of the combined margin emission factor and the most appropriate weights values for operating margin (OM) and build margin (BM), the methodology AMS I. D. refers to the "Tool to calculate the emission factor for an electricity system" (page 16, Step 7) which establishes:

*"• Wind and solar power generation project activities: $w_{OM}$ = 0.75 and $w_{BM}$ = 0.25 **(owing to their intermittent and non-dispatchable nature)** for the first crediting period and for subsequent crediting periods;*

*• All other projects: $w_{OM}$ = 0.5 and $w_{BM}$ = 0.5 for the first crediting period , and $w_{OM}$ = 0.25 and $w_{BM}$ = 0.75 for the second and third crediting period, **unless otherwise specified in the approved methodology** which refers to this tool."*

Considering the intermittent and non-dispatchable nature of run-of-river Small Hydroelectrical Power (run-of-river SHP) plant and the low predictability of project output of this kind, characteristic also acknowledge and considered by AMS-I.D at paragraph 15:

*"(...).**hydro**, solar, wind, geothermal, wave and tidal plants where power generation **can vary significantly from year to year, due to natural variations in the availability of the renewable source** (e.g., varying rainfall, wind speed or solar radiation (...)".*

It seems necessary to revise the methodology improving its coherence. In order to do so, the default values used for wind and solar power generation should be extended to hydro (run-of-river SHP), geothermal, wave and tidal power generation project activities. Therefore to properly adequate the methodology AMS I. D. "Grid connected renewable electricity generation" we propose the inclusion of a footnote referring to paragraph 12 (a):

*(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin*

*(BM) according to the procedures prescribed in the 'Tool to calculate the Emission Factor for an electricity system[7]'."*

*"[7]For hydro (run-of-river Small Hydroelectrical Power), solar, wind, geothermal, wave and tidal power generation project activities under the present methodology the following CM and BM weights should be use: $w_{OM}$ = 0.75 and $w_{BM}$ = 0.25 (owing to their intermittent and non-dispatchable nature) for the first crediting period and for subsequent crediting periods."*

In the specific case of hydro power generation a type limitation becomes necessary since hydropower plants with storage reservoir are not subject to river flows variability as run-of-river SHP plants. Evidence demonstrating intermittent and non-dispatchable nature (similar to wind power plants) of run-of-river small hydropower plants can be supplied if necessary.

**Recommendation by the SSC WG:**

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

Please refer to paragraph 14 of the meeting report of the SSC WG 29 <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 agreed to clarify that the intention of the paragraph in AMS-I.D that states "In the specific case of retrofit/capacity addition in hydro, solar, wind, geothermal, wave and tidal plants where power generation can vary significantly from year to year, due to natural variations in the availability of the renewable source (e.g. varying rainfall, wind speed or solar radiation)…" is in the context of determining baseline for capacity addition/retrofit project activities and not related to determining weights of calculating combined margin (i.e. OM and BM).

Based on the information provided in the submission, the SSC WG agreed that it is not possible to conclude that for run-of-the-river small hydro electrical generation units the impact on the grid (such as deferring investments in building power plants and therefore related to the Build Margin) is the same as for wind/solar units. It should be noted that there is a firm energy associated with the hydro plants, reflecting a more significant impact over the build margin.

However, the issue of considering the revision of weights for specific project activities on the basis of intermittency/seasonality should be part of a revision of the "Tool to calculate the emission factor for an electricity system" and not under the scope of a revision of AMS-I.D.

The SSC WG will forward the issues to the attention of the Meth Panel if the following additional information to the SSC WG are provided:

- A definition of run-of-the-river hydro plant (despatchable/intermittent vs. non-despatchable/non-intermittent) would be required;
- Further elaboration about the impact on the grid by run-of-the-river hydro vs. wind/solar project activities, justifying that the same OM/BM weights could be applied for all these cases.

Signed by the Chair, Mr. Peer Stiansen
Date: 14/01/2011

Signed by the Vice-Chair, Mr. Hugh Sealy
Date: 14/01/2011

| **Information to be completed by the secretariat** | |
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