



**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>	19–22 October 2010, SSC WG 28
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Clarification on the applicability of AMS-I.C to a new co-generation plant
<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.C “Thermal energy production with or without electricity”
<i>Name of the authors of the query:</i>	Daniel Martino Institution: Carbosur SRL <a href="mailto:daniel.martino@carbosur.com.uy">daniel.martino@carbosur.com.uy</a>

**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 Stakeholder:

We wish to clarify that AMS-I.C. is applicable to the project activity with the following description. Specific questions are stated below.

Description of the project activity:

The small scale project activity involves the installation of a biomass-based cogeneration plant by a pulp and paper industry which will not change the installed production capacity and consists in:

- a) a new biomass fired boiler producing steam at 60 bar a.,
- b) a new multistage reaction turbine and
- c) a new electrical generator of 8 MW<sub>el</sub>.

The new cogeneration plant will substitute thermal energy which in the baseline is produced by three boilers: one fuelled with fossil fuels (fuel oil and/or natural gas) and another two fuelled with biomass.

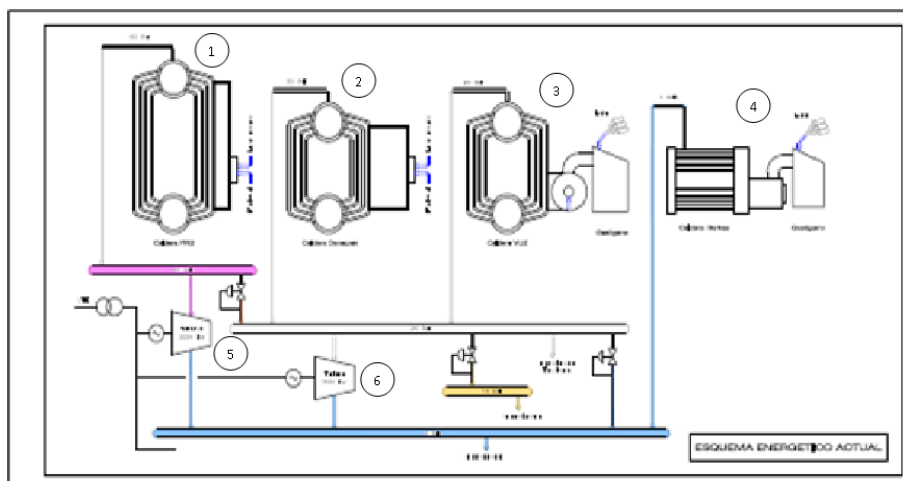
The project activity will also increase the amount of electricity produced. Electricity generated by the project activity will reduce the amount imported from the national grid as compared to the baseline.

Substituted equipments are the three boilers mentioned above (Nrs. 2, 3 and 4) as well as both turbines (Nrs. 5 and 6).

GHG emission reductions will arise from displacing thermal generation from the boiler fuelled with fossil fuels (Nr. 2) and from displacing fossil fuel based electricity generation in the national grid.

Description of the baseline scenario:

The following figure represents the baseline scenario in which electricity and thermal energy are generated in a co-fired system.



- 1: Black liquor based boiler (60 bar a)
- 2: Fuel oil / natural gas based boiler (20 bar a.)
- 3: Biomass based boiler (20 bar a.)
- 4: Biomass based boiler (5.5 bar a.)
- 5: Turbine 3 MW<sub>el</sub>
- 6: Turbine 1.5 MW<sub>el</sub>

In the baseline 4.5 MW<sub>el</sub> are generated for self-consumption with two turbines (Nrs. 5 and 6). Both have steam extractions at 4 bar a. for industrial processes.

Steam is collected from three boilers (Nrs. 1, 2 and 3) at two different pressure levels (20 and 13 bar a.) fitting respectively both turbines. A fourth biomass fuelled boiler (Nr. 4) generates steam at 4 bar a. only for processes.

Our request for clarification refers to the applicability of baseline scenario 15 (h) to the described activity, where the co-fired system is constituted by four boilers that generate steam for process requirements and three of them also generate electricity.

We also ask whether Equation 4 from paragraph 26 is applicable, calculating baseline emissions from displaced thermal energy based on fossil fuels (fuel oil and/or natural gas).

The efficiency calculation of the co-fired plant would consider the substituted boilers.

For electricity displaced from the grid, according to paragraph 17, baseline emissions will be calculated following AMS-I.D.

Total thermal capacity is below 45 MW<sub>th</sub>.

#### **Recommendation by the SSC WG:**

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

Please refer to paragraph 12 of the meeting report of the SSC WG 28  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](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 is of the opinion that the baseline situation presented cannot be considered as a co-fired system under the baseline scenario prescribed in AMS-I.C version 17, paragraph 15 (h). This is because paragraph 15 (h) is for “Electricity and/or thermal energy produced in a co-fired system” and a co-fired system is one that uses both fossil and renewable fuels in the same device (e.g. boiler). In the presented situation each boiler uses a single fuel. The author may wish to refer to the response provided by the SSC WG in SSC\_312 “Applicability of AMS-I.C to project activity replacing old fossil fuel and biomass boilers with a new biomass boiler” where co-firing system is defined as the use of fossil fuel(s) and/or biomass in one single piece of energy generation equipment. Also, for example AM0085 “Co-firing of biomass residues for electricity generation in grid connected power plants” defines co-firing as a simultaneous combustion of both: (i) Biomass residues and (ii) Fossil fuels in a single boiler.

Furthermore, equation 4 in paragraph 26 is not applicable because the project does not comply with paragraph 15 (h). The presented baseline and project cases might be some combination of 15 (h), 15 (g), and 15 (f) and 15 (e). Therefore, the author of the query may wish to propose a modification to AMS-I.C or a new methodology.

If the author is considering submitting a request for revision, schematic diagram(s) representing the baseline as well as the project scenario (including energy balances) shall be provided. Also, a draft CDM-SSC-PDD with at least section B “Application of an approved baseline and monitoring methodology” (including relevant annexes) completed shall be submitted.

Signed by the Chair, Mr. Peer Stiansen

Date: 22/10/2010

Signed by the Vice-Chair, Mr. Hugh Sealy

Date: 22/10/2010

**Information to be completed by the secretariat**

SSC-Submission number	SSC_458
Date when the form was received at UNFCCC secretariat	22 October 2010
Date of transmission to the EB	22 October 2010
Date of posting in the UNFCCC CDM web site	22 October 2010