



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)

Date of SSC WG meeting:	21–24 September 2009, SSC WG 22
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Revision of AMS-III.Q to include recovery of waste pressure that is not vented or released into the atmosphere
Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.	AMS-III.Q, version 2
Name of the authors of the query:	Institution: Omnia Group Pty Ltd harmke@promethium.co.za, melissa@promethium.co.za

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:

The revision is required for a project that recovers energy from waste steam pressure. The PDD of the project is attached hereto.

During the validation of the project the DOE commented on the fact that even though point 7 in the methodology refers to pressure not recovered (therefore wasted), point 6 (c) refers to pressure released to atmosphere.

It is important to note that pressure not recovered and therefore wasted can be released in ways other than release to atmosphere as is the case in the proposed project activity.

Pressure not recovered in the absence of the proposed project activity would be wasted either through a pressure reducing or a pressure releasing valve. In a pressure reducing valve steam is not vented into the atmosphere as it is used in the downstream process as low pressure steam.

In point 6 c, it reads “The waste gas/heat or waste pressure utilised in the project activity would have been flared or released into the atmosphere”. We would like to clarify the applicability for waste pressure by changing the sentence to

The waste gas/heat utilised in the project activity would have been flared or released into the atmosphere, or waste pressure not recovered.”

In addition point 6 c (iv) omitted the specific mention of waste pressure although it is implicit in the approach of the entire section 6c. We would like to clarify this and add the word “waste pressure”.

Recommendation by the SSC WG:

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

Please refer to paragraph 18 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 agreed not to recommend revising AMS-III.Q for described project activity where it can not be demonstrated that the waste gas/heat or waste pressure utilised in the project activity would have been flared or released into the atmosphere in the absence of the project activity. From the submission, the SSCWG understood the fact that the underlying project activity is intended for the improvement of steam system performance that would produce more energy output (electricity) with the same quantity of steam energy supply from the fossil fuel-fired boiler without compromising the quality of steam energy demand of existing baseline end users. The electricity thus produced would displace high carbon intensive electricity. The SSC WG is of the opinion that a new Type III methodology (e.g., replacement of steam pressure reducing devices with steam turbines that generate useful work in the form of mechanical or electrical energy) may be submitted to cover the described project while taking into account the following issues related to the project activity:

- The service level of the low pressure steam supplied to users is not clear in the described project activity of the submission. For example, how much useful steam is supplied in both the baseline and the project activity scenarios to the factory consuming low pressure steam? There is a possibility that the amount and possibly the quality of heat supplied to the factory consuming low pressure steam in the baseline may be compromised when a back pressure turbine is added to replace a PRV. This issue would be influenced by the efficiencies of both the installations/units in the baseline and project activity scenarios. In order to make up for this heat loss, steam plants with backpressure turbine installations increase their boiler steam throughput which may have to be included as project or leakage emissions. In addition, this effect may also require that alternative source of steam of the right quality be produced outside the boundary of the present CDM project thus leading to leakage effect. A full steam-energy balance approach shall be incorporated (e.g., steam energy balance of the facility, steam pressure requirement of the process, and steam flow in PRV station) to capture these potential leakage effects.
- It is noted from the PDD that the inlet pressure to the turbine in the project would be reduced by 10% as compared to the inlet pressure in the PRD in the baseline (see page 7). Though the design specification allowed the variation ($\pm 10\%$), the project service level may not be the accurate reflection of the baseline service level.
- There may be a limitation on the applicability of using non-condensing backpressure turbo-generators in place of PRV. For example, backpressure turbo-generators would be considered when a PRV has constant steam flows of at least 3,000 lbs/hr (1.4 tons/hr), and when the steam pressure drop would be at least 100 psi (6.89 bars). If the backpressure turbine is installed in parallel with the PRV, it would need to be ensured it is for the periodic turbine-generator maintenance and does not interfere with plant thermal deliveries (no increase in thermal capacity limit).

The author of the submission also shall take into account the following if a new methodology is intended to be submitted:

- It shall be possible to directly measure and record the energy use within the project boundary (e.g.

electricity and/or fossil fuel consumption).

- The impact of the measure(s) implemented (steam system performance) by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity (signal to noise ratio).
- If the energy efficiency improvement is in complex industrial process and/or a sub-system of a large facility, it may be difficult to fit under the SSC methodology as it may constitute uncertainties in estimating baseline and project emission using the framework of simplified small scale methodology. See paragraph 58 of EB 47 which states “The Board considered the new small-scale methodology “AMS-ILK Industrial process optimization for energy efficiency and electricity generation” recommended by the SSC WG and agreed not to approve the methodology. The proposed methodology does not adequately capture baseline and project emissions associated with the complex industrial process to which the methodology is applicable. The Board was of the opinion that a simplified small scale methodology may not provide the right framework for the kind of technology/measure being addressed by the methodology.”

The issues above are only examples and may not cover all the uncertainties in the proposed revision.



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

SSC-Submission number	SSC_317
Date when the form was received at UNFCCC secretariat	24 September 2009
Date of transmission to the EB	24 September 2009
Date of posting in the UNFCCC CDM web site	24 September 2009