



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>	26–29 April 2010, SSC WG 25
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Clarification on the application of correction factor for measurement campaign to the ex post emission reduction calculation
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-III.H versions 10 and above “Methane recovery in wastewater treatment”
<i>Name of the authors of the query:</i>	Michel Buron Institution: Kyoto Energy Pte. Ltd. michel.buron@kyotoenergy.net

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:

The request for clarification is divided into two sections. Firstly, the use of correction factors when employing the 10 day sampling campaign and secondly with respect to monitoring.

Paragraph 18 of AMS-III.H versions 10 leaves the possibility to determine the parameters of the baseline emissions through a 10 days measurement campaign. In this instance, a correction factor must be applied to the parameters in order to account for the uncertainty of employing such an approach.

Please find below two clarifications with respect to calculations when using a 10 day measurement campaign:

- 1) Whether the correction factor is applied to the end result of equation 1 in the methodology as a whole (i.e. not just constituent parts of the formula):

$$BE_y = \{BE_{power,y} + BE_{ww,treatment,y} + BE_{s,treatment,y} + BE_{ww,discharge,y} + BE_{s,final,y}\} * 0.89$$

- 2) Please clarify that there is no need to apply this correction factor in the ex-post calculation of emission reductions. This is because ex-post calculations will be based on actual figures and therefore no need to correct for uncertainty.

With respect to monitoring, please clarify:

- 3) Paragraph 30(i) requires that “The amount of biogas recovered and fuelled or flared (MDy) during the crediting period” to be monitored. Should this not actually read “The amount of methane recovered and fuelled or flared (MDy) during the crediting period” as MDy is methane as per the information below equation 15, paragraph 31.

4) Subsequently In paragraph 36, what is required to be monitored? Is it methane (tonnes/year) or biogas (m3/year) or the volumetric flow rate of biogas in m3/hour as per the “Tool to determine project emissions from flaring gases containing methane” requires that “Volumetric flow rate of the residual gas in dry basis at normal conditions” be monitored, is it methane (tonnes/year) or biogas (m3/year) to be monitored?

Recommendation by the SSC WG:

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

Please refer to paragraph 32 of the meeting report of the SSC WG 25 (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:

With respect to question 1, the uncertainty factor should be applied only to baseline emission (BE) source(s), for which one-year historical data is not available and is to be determined through measurement campaign.

With respect to question 2, the uncertainty factor still should be applied for the calculation of baseline emissions using *ex post* measured parameter(s), for the cases where the baseline emissions were determined through measurement campaign. For example, in case that the baseline treatment system is different from the treatment system in the project scenario, removal efficiency of the baseline treatment systems (thereafter referred to as “ ρ ”) which was measured *ex ante* through representative measurement campaign will be used to *ex post* estimates of baseline emissions based on measured inflow COD (please refer to paragraph 20 of AMS-III.H). In such a case, uncertainty factor needs to be applied as well to take into account the uncertainties associated with the COD removal efficiency of the baseline system (ρ). Baseline emissions based in one year historical data need not to be evaluated using the uncertainty factor, neither in *ex ante* calculations nor in *ex post*.

With respect to question 3, the project proponent’s interpretation is correct, i.e., the phrase should be read as “The amount of methane recovered...” instead of “The amount of biogas recovered...”, which is in accordance with the definition of MD_y in equations 15 and 16 of the methodology. This will be corrected at the next revision of AMS-III.H.

With respect to question 4, it is clear from footnote 15 of the methodology that what is required is the measurement of amount of biogas together with the methane fraction in biogas i.e., the final result of para. 36 is the quantity of recovered methane by means of measuring a) amount of biogas; b) methane content; c) pressure and temperature of biogas to determine the methane density. The amount of biogas ($BG_{burnt,y}$) is measured in volumetric basis ($m^3/year$), and the methane concentration ($w_{CH4,y}$) in volume fraction. The pressure and temperature are necessary to determine the methane density (tonnes/ m^3). Then all the parameters to input in equation 16 (reproduced below) would be available to determine MD_y :

$$MD_y = BG_{burnt,y} * w_{CH4,y} * D_{CH4} * FE * GWP_{CH4}$$

Signed by the Chair, Mr. Peer Stiansen

Date: 29/04/2010

Signed by the Vice-Chair, Mr. Hugh Sealy

Date: 29/04/2010

Information to be completed by the secretariat

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