



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:	As per procedures for fast track clarifications
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Clarification on the comparability of project emission estimation in AMS-III.D and AMS-III.R
Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.	AMS-III.D and AMS-III.R
Name of the authors of the query:	Zhang Binliang Institution: Ecochain (Beijing) S&T Co. Ltd, China zblecnu@msn.com

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:

Dear Sir/Madam:

I would appreciate some clarification on the discriminated standards of determining the project activity emissions as per methodology AMS-III.D. and methodology AMS-III.R.

1. AMS-III.D.

In the III D., when calculating the project activity emission, both $PE_{PL,y}$: Emissions due to physical leakage of biogas in year “y” (tCO_{2e}) and $PE_{flare,y}$: Emissions from flaring or combustion of the biogas stream in the year “y” (tCO_{2e}) shall be taken into consideration.

As known, the $PE_{PL,y}$ can be roughly valued as 10% of the baseline emission according to the given formula by the methodology (Project emissions due to physical leakage of biogas from the animal manure management systems used to produce, collect and transport the biogas to the point of flaring or gainful use is estimated as 10% of the maximum methane producing potential of the manure fed into the management systems implemented by the project activity).

As for the parameter $PE_{flare,y}$, as per the methodology AMS-III.D., project emissions are estimated using the procedures described in the “Tool to determine project emissions from flaring gases containing methane”. And according to the “Tool to determine project emissions from flaring gases containing methane”, in case of flaring in open air, the flare efficiency can be defaulted as 50% (operational flare) or 0% (uncontrolled flare). And if there is no record of the temperature of the exhaust gas of the flare or if the recorded temperature is less than 500 °C; for any particular hour, it shall be assumed that during that hour the flare efficiency is zero. So it is easily to draw a conclusion that in the situation methane used by rural household for the purpose of cooking, the flare efficiency is considered to be 0%.

2. AMS-III.R.

However in the III.R, when calculating the project activity emission, only the 10% of the baseline emission needs to be taken into consideration (refer to page 2 Project Activity Emission of the

methodology) and the flare efficiency is not considered herewith.

3. Case analysis

The different standard of calculating the project emission by the two methodologies can lead to completely different emission reductions in specific project cases. In some extent, I personally think it is unfair. For example, there is a small scale pig farm (5000 pigs kept in pen annually), in which the AWMS has been changed and the previously atmospherically-released methane is collected and supply to rural households for cooking in the project scenario. According to the applicability of the CDM methodologies, the III.D applies. And according to the III.D, the project activity generates zero emission reduction since the flare efficiency is equal to zero (cooking by household shall be the uncontrolled flare in open air) and the project activity emission is equal to the baseline emission. And near by the pig farm, there are around 10 households who keep their own pigs (4 pigs for each averagely) in pen as well. These households also changed their way of pig manure utilization. In the project scenario, the methane is collected by individual household and used as fuel for own cooking purpose. According to the applicability of the CDM methodologies, the III.R applies. And according to the III.R, the project emission is around 10% of the baseline emission. So the project emission reduction is equal to around 90% of the baseline emission. And now the difference of emission reductions between the two situations comes: in the 1st case, the 5000-pig farm generates zero emission reduction applying AMS-III.D while the 40-pig households generate emission reduction while using AMS-III.R. It looks self-contradictory somewhat.

Recommendation by the SSC WG:

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

This recommendation is as per the procedures for fast track clarifications as specified in paragraph 8 of the 'procedures for the submission and consideration of request for clarification of approved small-scale methodologies' found at <http://cdm.unfccc.int/Reference/Procedures/MethSSC_proc01_EB34a06.pdf>.

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 (SSC WG) would like to thank the author for the submission. The SSC WG agreed to clarify that AMS-III.R and AMS-III.D are consistent to each other. Both AMS-III.D and AMS-III.R are applicable to thermal energy generation from biogas including household cooking, distinction being AMS-III.R is applicable to smaller systems (as indicated in paragraph 2 of AMS-III.R) with simplified monitoring requirements. AMS-III.D allows thermal energy generation per paragraph 4 (a) and implicitly assumes 100% efficiency when the biogas is combusted for energy applications considering high efficiency of methane destruction/oxidation in engines, power plants and stoves (IPCC 2006 assigns a 99.5% destruction efficiency in power plants, > 98% destruction efficiency in the case of biogas stoves is reported in the literature).

The SSC WG agreed to further clarify that under AMS-III.D the "[Tool to determine project emissions from flaring gases containing methane](#)" is applicable in cases involving the flaring of recovered methane, i.e., the combustion without gainful use of the released energy. When a project activity involves both flaring and gainful use of biogas, a distinction is made between cases when respective amounts are monitored versus cases when they are not monitored as per paragraph 26 of AMS III.D. When the amount of methane that is combusted for energy and that is flared is separately monitored, 100% destruction efficiency is assumed for the amount that is combusted in the current version of AMS-III.D.

The SSC WG agreed to include these clarifications in a future revision of AMS-III.D.



Signature of SSC WG Chair

(Hugh Sealy)

Date: 29/07/2009



Signature of SSC WG Vice-Chair

(Peer Stiansen)

Date: 29/07/2009

Information to be completed by the secretariat

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