Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories

TYPE III - OTHER PROJECT ACTIVITIES

All the approved small-scale methodologies, general guidance to the methodologies, information on additionality and abbreviations can be found at: http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html

III. D. Methane recovery in agricultural and agro industrial activities

Technology/measure

1. This project category comprises methane recovery from manure and wastes from agricultural or ~~coalmines,~~ agro-industrial activities ~~and other sources~~ by

(a) installing methane recovery and combustion system to an existing source of methane emissions, or

(b) changing the management practice of a biogenic waste or raw material in order to achieve the controlled anaerobic digestion equipped with methane recovery and combustion system.

2. Projects that recover methane from landfills shall use category III-G and projects for wastewater treatment shall use category III-H. Measures shall both reduce anthropogenic emissions by sources and directly emit less than 15 kilo tonnes of carbon dioxide equivalent annually.

~~3. CO_2 emissions from combustion of non-biogenic methane shall be accounted for in the project activity.~~

4. This category is applicable for project activities resulting in annual emission reductions lower than 25,000 ton CO_2e. If the emission reduction of a project activity exceeds the reference value of 25,000 ton CO_2e in any year of the crediting period, the annual emission reduction for that particular year is capped at 25,000 ton CO_2e.

Boundary

5. The project boundary is the physical, geographical site of the methane recovery facility.

Project Activity Direct Emissions

6. Project activities are eligible under this category if they directly emit less than 15 kilo tonnes of carbon dioxide equivalent annually.

7. Technical measures shall be used (e.g. flared, combusted) to ensure that all biogas produced by the digester is destroyed. If biogas is released to the atmosphere unburned, these methane emissions shall be considered as the project emissions. Direct project emissions therefore consist of:

(i) Methane not captured by the project and released to the atmosphere;

(ii) Methane captured and not flared (e.g. physical leakage, flare inefficiency, flare availability);

(iii) CO_2 emissions from combustion of non-biogenic methane;

(iv) CO_2 emissions from use of fossil fuels or electricity for the operation of the facility;

(v) The aerobic treatment and/or proper soil application of the sludge leaving the digesters in the project activity shall also be ensured and monitored. If the sludge is treated and/or disposed anaerobically, the resulting methane emissions shall be considered as project emissions.

Baseline

8. The emission baseline is the amount of methane that would be emitted to the atmosphere during the crediting period in the absence of the project activity. For each year during the crediting period, emissions are calculated as specified in paragraph a and paragraph b below and lower of the two values is used

(a) Actual monitored amount of methane captured and destroyed by the project activity.

(b) The methane emissions calculated ex ante using the amount of the waste or raw material that would decay anaerobically in the absence of the project activity, with the most recent IPCC tier 2 approach

9. ~~The baseline shall cover only the capture and flaring that would not have happened in the absence of the project activity~~.

10. ~~In the case of landfill gas, waste gas, waste water treatment and agro-industries projects:~~ If the recovered methane is used for heat or electricity generation it can apply to the corresponding category of type I project activities.

Leakage

11. No leakage calculation is required

Monitoring

12. The amount of methane ~~recovered~~ ~~and~~ used as fuel or combusted shall be monitored, using flow meters and analysing the methane content of the combusted gases either online, or with samples taken at least quarterly, and more frequently if the results show significant deviations from previous values.

13. Regular maintenance should ensure optimal operation of flares. The flare efficiency, defined as the fraction of time in which the gas is combusted in the flare, multiplied by the efficiency of the flaring process, shall be monitored.

14. Flow meters, sampling devices and gas analysers shall be subject to regular maintenance, testing and calibration to ensure accuracy.