

CDM methodological guidance: mission accomplished?

Daniel Perczyk

Latin American Carbon Forum

Santiago de Chile. 29/10/08

- How guidance has been provided?
- Guidance provided
- Guidance under development: Biofuels, Allocation of emissions, Enhanced barrier analysis, First-of-its-kind, Expansion of industrial gas recovery methodologies to new facilities, Energy efficiency, Off grid
- New areas: Electric interconnections, PoAs, Agriculture

How guidance has been provided?

- Explicit guidance: General Guidance for Small Scale project activities
- Criteria included in methodologies: AM0029, ACM0009, AM0042
- Tools
- EB decisions: e.g. Double counting in biofuel projects

Guidance for SSC project activities

- Output capacity
- New facilities
- Retrofit
- Capacity increase
- Lifetime of existing equipments

Criteria included in methodologies (I)

- Emission factor for electricity generation from fossil fuels (AM0029) is the lowest among:
 - build margin
 - combined margin
 - emission factor of the technology (and fuel) identified as the most likely baseline scenario

Criteria included in methodologies (II)

Consumption of fossil fuels. Leakage resulting from upstream emissions (ACM0009):

- Fugitive CH₄ emissions associated with fuel extraction, processing, liquefaction, transportation, re-gasification and distribution of natural gas used in the project plant and fossil fuels used in the grid in the absence of the project activity.
- CO₂ emissions from fuel combustion / electricity consumption associated with the liquefaction, transportation, re-gasification and compression into a natural gas transmission or distribution system in the case LNG is used in the project plant.

Criteria included in methodologies (III)

Use of biomass residues or biomass from dedicated plantations (AM0042):

- Applicability conditions
- Leakage

Tools

- Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion
- Tool to calculate baseline, project and/or leakage emissions from electricity consumption
- Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site
- Tool to determine project emissions from flaring gases containing methane
- Tool to calculate the emission factor for an electricity system
- Tool for the demonstration and assessment of additionality
- Combined tool to identify the baseline scenario and demonstrate additionality

EB decisions

Annex 12 EB 26th Meeting

Guidance on double-counting in CDM project activities using blended biofuel for energy use

- **Type of projects:**

1. The consumers (end-users) of biofuels claims CERs from displacing fossil fuel consumption with biofuel.
2. The producer of biofuels claims CERs for biofuel production, provided:
 - i. the consumers, to whom the biofuel is sold, are included in the project boundary; and
 - ii. the emissions reduction from use of biofuel are estimated based on monitored consumption by the consumers included within the project activity.

- **Monitoring**

The methodology shall provide a monitoring scheme/framework with elements (e.g. electronic loggers) that can be used to verify without doubt the actual amount of biofuel consumed by the consumer (end user) for displacement of fossil fuels. The monitored elements of the consumption by the end-user shall correspond to the production of the biofuel and be used to calculate and claim emission reductions. The methodology for project activities undertaken by consumers of biofuel shall provide an estimate of leakage, which is measurable and attributable to the CDM project activity.

Biofuels

- Allocation: by price, by energy content, substitution approach
- Project emissions from biomass production: default emission factors, crops/region, changes in soil carbon stocks following a land use change or a change in the land management
- Baseline emissions: fossil fuel production

Enhanced barrier analysis

- Procedures to be applied when the project activities are highly profitable without CER revenues and only use barrier analysis for the demonstration of additionality.
- For Greenfield industrial plants, using solid or liquid waste (including biomass residues), waste gas, waste heat, etc. as new feedstock for producing either a product or energy (heat or power).
- PPs can choose between the following options:
 - Demonstrate that the project activity is a first-of-its-kind in the relevant region or country concerned;
 - Demonstrate that at least one barrier cannot be directly alleviated or otherwise affected by the potentially higher financial revenues of the project activity but will be alleviated by the CDM;
 - Explain and support with credible independent evidence that bank loans, other debt or equity financing could only be obtained after the benefits of the CDM were taken into account.

Energy efficiency

Annex 13 EB 41th meeting

- Best-practices guidance on sampling and surveys for energy efficiency project activities:
 - Surveys for baseline determination;
 - Surveys to determine equipment failures or determination of continued operation of project equipment during crediting period;
 - Surveys to map the progress in manufacturing technologies of energy efficiency appliances to account for autonomous energy efficiency improvement;
 - Surveys to account for factors such as free-riders, leakages, spillovers etc.;
 - Regular monitoring surveys of sample groups in the crediting period.
- Tool on Energy Benchmarking
- Other issues: Signal-to-noise-ratio, lifetime of equipment; rebound effect due to reduced operational cost caused by energy efficiency projects.

Expansion of industrial gas recovery methodologies to new facilities

Annex 11 Report MP 34th MEETING

Situations with potential for overestimation of emission reductions:

- New plants may be configured to intentionally increase the byproduct emission rate, or deliberately neglect to implement “business-as-usual” measures, which help decrease such emissions;
- New plants may divert the supply of products from existing plants, which may have a lower emission factor (or have an abatement device already installed);
- New plants may divert the supply of products imported from existing and/or new plants in Annex I countries (or have the same effect by exporting to Annex I countries).
- New plants, registered as CDM project activities, may reduce the price of the product, increasing thereby the demand of this product in the market. In an extreme case, the plant itself may become profitable solely due to the revenue of CERs, where producing the “byproduct” and dumping / wasting the “main product” makes business sense;
- The registration of new plants as CDM project activities may prevent the dissemination of new technologies, which do not give rise to (or result in less) byproduct emissions.

Off grid generation

Methodological approaches:

- to determine the conditions where construction of a grid-connected power plant can be deemed to partly or fully displace off-grid electricity, and
- to determine an emission factor in such cases.

New areas

- Electric interconnections
- PoAs
- Agriculture

- CDM methodological guidance: mission accomplished?

Thank you

Daniel Perczyk
dp@itdt.edu