CDM Watch Note on the Proposed Methodology Revision for AM0001 Incineration of HFC-23 Waste Streams

25 May 2011

Introduction

HFC-23 is an unwanted byproduct from the production of HCFC-22, a refrigerant gas that is currently subject to a phase-out under the Montreal Protocol due to its ozone-depleting properties. As a greenhouse gas, HFC-23 is 11,700 times more potent than CO2 and has an atmospheric lifetime of 250 years.

The CDM issues carbon credits for the destruction of HFC-23 gases to prevent their release into the atmosphere. There are currently 19 HFC-23 abatement projects registered under the CDM. These 19 projects are projected to deliver more than 476 million carbon credits by 2012. Over half of these credits (288 million) have already been issued, representing about 50% of the credits from all CDM projects issued to date.

Analysis of monitoring data from all registered HFC-23 destruction projects revealed that CDM HCFC-22 plants are intentionally operated in a manner to maximize the production of offset credits. The analysis indicates that because of the extra CDM revenue more HCFC-22 is produced and far more HFC-23 generated than would occur without the CDM. Following the official request by CDM Watch to revise AM0001 and an investigation by the UNFCCC methodology panel which confirmed that the methodology had major loopholes, the CDM Executive Board suspended the HFC-23 methodology in 2010.

At their 49th meeting, the UNFCCC methodology panel presented a new version of the methodology AM0001 which will be discussed at the next meeting of the CDM Executive Board starting on 30 May 2011.

The following text lays out the main issues that remain with this project type, despite the improvements that have been made in the revisions.

Which changes does the revised methodology AM0001 propose?

The proposed revision includes a whole range of changes. The most important ones are:

1. A lower cap on the maximum creditable waste generation rate w. The former methodology had a cap of 3%. The revision proposes limits of **1% or 1.4%** and the Executive Board has been asked to choose one of the two values.
2. The eligible quantity of HCFC-22 for crediting will be calculated based on the **average instead of the maximum** historical HCFC-22 production levels.
3. Two options to **calculate project emissions.** The Executive Board has been asked to choose either option A or B:
    - **A.** Undestroyed HFC-23 **emissions from all production lines** in a plant (including those that cannot earn credits) are accounted for as project emissions or
    - **B.** Only undestroyed HFC-23 **emissions from HCFC-22 production lines that are eligible for crediting** are accounted for as project emissions.

Which problems remain unresolved?

1. Risks that CDM plants may displace HCFC-22 production in more efficient plants or in plants that are located in countries that have an emissions cap ('carbon leakage');
2. The negative implications for the phase-out of HCFCs under the Montreal Protocol.

Why does the new methodology still risk displacement of HCFC-22 production?

If the CDM revenues are very large, they can lead to a production shift to HCFC-22 plants in developing countries away from production in Europe and other developed countries that have a cap on their total emissions. Such carbon leakage undermines climate protection goals and creates unfair economic distortions.

It is necessary to establish a very conservative baseline factor for the HFC waste generation rate to ensure that no carbon leakage occurs. The authors of the revised methodology acknowledge the importance of limiting the number of credits a project can earn yet they do not go far enough: In the old methodology the value for the waste generation rate was set at 3%. The current methodology revision asks the CDM Executive Board to either set the cap at 1% or 1.4%. But even the lower of the two proposed factors (1%) is not stringent enough to prevent carbon leakage. The Meth Panel´s draft note about the new revisions seems to say as much: "*The extent to which this issue is addressed, depends on the conservativeness of the cap selected for the baseline waste generation rate*," and "*the draft revised methodology reduces* [not 'minimizes' or 'avoids'] *the incentives for a potential shift of production from non-CDM plants to CDM plants*".

How does the revised methodology undermine the goals of the Montreal Protocol?

In 2007, Parties to the Montreal Protocol agreed to significantly accelerate the phase out of HCFCs. A freeze is already envisaged by 2013 and a 10% decrease below the base year level is required by 2015. HCFC-22 production for emissive uses will be phased-out by 2030. Yet the speed of the phase-out will depend on how quickly the agreement will be implemented by host countries. Countries may start the phase out early since significant funding will be provided for this purpose under the Multilateral Fund. Yet this can only happen if the CDM does not provide perverse incentives to delay the phase out.

The proposed methodology revisions try to address this issue by requiring a cap on HCFC-22 production based on *average* historic production levels instead of the *maximum*. Although this is an important improvement, it is not enough to minimize perverse incentives. In addition a more conservative baseline cap for the HFC-23 generation rate (see below) is also needed. Only the combination of these two caps (*average* historic production levels for HCFC and a stringent waste generation rate for HFC) can ensure that there is no disincentive to shut-down CDM plants in the course of the phase-out of HCFC-22 under the Montreal Protocol.

Why do we need a 'waste generation rate' of 0.2%?

Setting a stringent cap on how much destroyed HFC-23 is eligible for crediting prevents producers from artificially inflating the production of HFC-23, minimizes the risk of carbon leakage and helps protect the goals of the Montreal Protocol. It is therefore crucial that the 'waste generation rate' is set conservatively enough.

The cost of HFC destruction is quite low. This is especially true for plants that have already installed destruction equipment. The revision of this methodology would mostly or only apply to facilities that are already CDM projects (the revised methodology would apply at the renewal of their crediting period.) For these projects the investment costs for the HFC destruction facility were already fully recovered during the first crediting period (The marginal operation costs for such plants have be estimated to be less than 0.1 US$ per tonne of CO_2e).

Therefore even with a waste generation ration of 1% the risks of perverse effects remain. For example, based on the figures provided by the TEAP, CER revenues could exceed HCFC-22 production costs and hence provide incentives that more HCFC-22 is produced as a result of the CDM than would otherwise be produced.

We therefore believe that only a waste ratio of 0.2% could address the two main risks of carbon leakage and of undermining the Montreal Protocol goals. At their next meeting, the CDM Executive Board must either adopt a 0.2% ratio for the waste generation rate or reject the proposed methodology.

Summary

- The proposed methodology revisions contain many improved elements but do not go far enough;
- The revisions and the accompanying note by the CDM Methodology Panel make it clear that neither the safeguarding of the Montreal Protocol goals nor the prevention of 'carbon leakage' are sufficiently addressed with the current proposal.

CDM Watch urges the CDM Executive Board

- ➔ To reject the proposed 1% or 1.4% 'waste generation rate' and instead to adopt a rate of 0.2%.
- ➔ Alternatively, to reject the methodology and send it back to the Methodology Panel to fully address the risks associated with undermining the Montreal Protocol and with potential 'carbon leakage.'
- ➔ To support the inclusion of all HFC-23 emissions in the project emissions. This incentivizes additional abatement, reduces the potential of plants emitting unabated HFC-23 and further protects the goals of the Montreal Protocol.

Furthermore, an amended methodology would have significant impact on registered HFC-23 projects. Yet only once they request renewal of their CDM crediting period. Therefore it is important that some changes are applied to the current methodology as well as in the revised methodology.

- ➔ **CDM Watch urges** the CDM Executive Board to address the clarification request (AM_CLA_0191) and apply changes to the current crediting methodology.

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