

NM0235: Manufacturing of energy efficient domestic refrigerators
NM0247: Manufacturing and servicing of refrigerators using low GWP
refrigerant by M/s Videocon Appliances Ltd.

I. Background

The Meth panel recommended the reformatted versions of the proposed new methodologies based on the cases NM0235 and NM0247 to the Board for approval at its thirty-second and thirty-third meetings.

The new methodology, based on NM0235, is designed for project activities undertaken by manufacturers of domestic refrigerators aiming at increasing the energy efficiency of manufactured appliances.

The new methodology, based on NM0247, is designed for project activities undertaken by a manufacturer of domestic refrigeration appliances aiming at reducing GHG emissions by switching from a refrigerant with a higher GWP to a low GWP refrigerant.

Having considered these cases for the second time at its forty-first meeting, the Board referred them back to the panel requesting it to further consider the cases to analyse (a) possible implications of a supply side methodology, encouraging producers to introduce energy efficiency improvements in manufactured appliances, on a consumer side programme of activities using the same type of appliances; (b) how to demonstrate that a technological innovation in a manufacturing facility is introduced due to the CDM and not other reasons such as safety considerations, cost reduction, availability of new materials, etc; (c) feasibility of the applicability condition requiring DOEs to confirm that no double-counting occurs, specifically in the context of the large number of appliances that may be manufactured and sold in the project activity duration, in particular in the case of PoA.¹

This note provides an analysis of the issues raised by the Board and a recommendation by the panel to the Board.

II. The panel's assessment of the issues raised

(a) Possible implications of a supply side methodology, encouraging producers to introduce energy efficiency improvements in manufactured appliances, on a consumer side programme of activities using the same type of appliances

- (1) It is the panel's understanding that the current practice under the CDM is to consider new methodologies submitted for approval and project activities submitted for registration on a "first come first served" basis. The panel, in reviewing and recommending for approval proposed new methodologies, does not give preference to methodologies where producers receive CERs, where distributors receive CERs or where consumers receives CERs, but assesses them on their merits, technical soundness and compliance with the CDM requirements.
- (2) The methodologies based on NM0235 and NM247 do not preclude project proponents from submitting new methodologies for project activities targeting consumers or distributors of refrigeration appliances and, when such methodologies are approved by the Executive Board, developing and implementing a related programme of activities. Project

¹ EB 41 report, paragraph 22.

activities targeting consumers and producers could both be implemented. Methodologically, the issue is to avoid potential double counting of emission reductions being claimed by a producer and a consumer of refrigeration appliances. However, this issue is adequately addressed in the proposed methodologies through the following applicability condition:

“To avoid potential double counting of emission reductions, the DOE performing validation of the project activity shall confirm in the validation report that no other project activity, involving the same refrigerator models as the proposed project activity, has been registered as a CDM project activity, submitted for registration or uploaded for public comments.”

And a comprehensive monitoring system as mentioned below.

- (3) The Board has already approved a number of methodologies for project activities where credits are claimed by manufacturers of a product, the use of which leads to emission reductions. Such methodologies include specific provisions to avoid double-counting of emission reductions. For example, AMS-III.A “Urea offset by inoculant application in soybean-corn rotations on acidic soils on existing cropland” requires that *“Farmers that take part in the project activity sign an agreement with the project participants that specifies that they will not claim emissions reductions for using inoculant on their land”*. AMS-III.T “Plant oil production and use for transport applications” requires that *“The retailers, final users and the producer of the plant oil or its blend are bound by a contract that states that the retailers and final consumers shall not claim emission reductions resulting from its consumption. Only the producer of the plant oil can claim emission reductions under this methodology.”*
- (4) There are also approved methodologies for project activities, where credits are claimed not by a manufacturer or a consumer, but by a third party distributing or selling a climate-friendly product. Such methodologies include AM0046 “Distribution of efficient light bulbs to households” and AMS-II.J “Demand-side activities for efficient lighting technologies” approved at the 41st meeting of the Board.
- (5) From a technical perspective, it may be easier to implement measures to reduce HFC emissions with the manufacturers of refrigerators than setting up a programme to convince consumers not to use refrigerators that contain HFC-134a. For example, the Multilateral Fund for the Implementation of the Montreal Protocol was successful in providing financing to manufacturers of refrigeration appliances to undertake a switch from CFC-11/CFC-12 to refrigerants with zero Ozone Depleting Potential. This led to a global phase-out of CFCs in the refrigeration sector. The methodology based on NM0247 is for a similar type of project activity where a manufacturer switches from HFC-134a to a refrigerant with a lower GWP in domestic refrigerators.
- (6) It should be highlighted that the methodology based on NM0235 is in compliance with the guidance of the Board (see Annex 16, EB36 report) requiring that *“(i) the users/consumers of the product are included in the project boundary; and (ii) monitoring takes place of the actual use/consumption and location of the product used/consumed by consumers.”* For project activities applying the methodology based on NM0247, project participants can only claim emission reductions that occur during the production or repair of refrigerators but not emission reductions that result from the use of refrigerators by households. Nevertheless, the users of refrigerators are included in the project boundary in NM0247 as well.

- (7) In conclusion, from a technical perspective, it is possible that consumers, distributors and producers of equipment could claim CERs from such project activities. The panel therefore does not recommend excluding any of these groups from claiming CERs.

(b) How to demonstrate that a technological innovation in a manufacturing facility is introduced due to the CDM and not other reasons such as safety considerations, cost reduction, availability of new materials, etc

- (8) This issue is that of the demonstration of additionality and thus not specific to the proposed new methodologies. Like for any project activity, submitted for registration, it is the role of the DOE to validate the justification, evidence and documentation submitted by project participants in support of an investment and/or barrier analysis for the demonstration of additionality and it is the role of the Board to make the final decision whether the project activity is deemed additional. The proposed new methodologies provide the following procedures for the assessment and demonstration of additionality.
- (9) In the methodology based on NM0247, the additionality is to be demonstrated applying the latest approved version of the “Combined tool to identify the baseline scenario and demonstrate additionality”. Additional guidance is provided on the investment analysis. It is also required to conduct an analysis of the national market of domestic refrigerators to prove that the project activity is not a common practice.
- (10) In the methodology based on NM0235, an ambitious benchmark is to be established for the demonstration of additionality and the baseline scenario. The project participants have to demonstrate that the efficiency of their manufactured appliances is above both the benchmark for the national market of domestic refrigerators and the benchmark for the manufacturing facility, involved in the project activity. The benchmark is updated on an annual basis using an autonomous technology development factor to ensure that one-off technological improvements, which may be caused by safety, material availability or other reasons, are excluded. The application of the lower between the two benchmarks is a conservative approach in order to minimize the risk of project activities not being additional to qualify under the methodology. This innovative approach serves as a contribution in response to the request² of COP/MOP to the Executive Board to “*consider new proposals to demonstrate additionality with a view to including approved approaches for the demonstration of additionality in baseline methodologies*”.

(c) Feasibility of the applicability condition requiring DOEs to confirm that no double-counting occurs, specifically in the context of the large number of appliances that may be manufactured and sold in the project activity duration, in particular in the case of PoA.

- (11) The panel considers that the above applicability condition is feasible and can be practically implemented due to a comprehensive monitoring procedures included in both methodologies. Specifically, a database containing information on all refrigerators sold under the project activity is established, including data on brand and model of refrigerator, users of the appliance, etc.
- (12) While conducting the validation of a project activity, involving domestic refrigerators, the DOE will only need to check that brands and models, already used in other project activities, are not included in the project activity in validation.

² Decision 1/CMP.2, paragraph 16 (c).

- (13) The panel, in cooperation with SSC WG, will ensure that relevant provisions to avoid potential double-counting are included in new methodologies in the domestic refrigeration sector, if and when such proposals are submitted for consideration.

III. Options/Recommendations

On the basis of the above considerations, the panel reconfirms its recommendation to the Board to approve the methodologies based on NM0235 and NM0247.

The panel also believes that the innovative approaches used in the proposed methodologies will serve as a tangible input in the ongoing work of the Board on the development of guidance and tools for energy efficiency project activities and methodologies³ as well as a contribution in response to the COP/MOP request to the Board to continue its work relating to energy efficiency.⁴

³ EB 41 report, paragraph 31.

⁴ Decision 2/CMP.3, paragraph 18 (b).