	<b>CDM: Response form for Request for revision of approved methodologies (version 01.1)</b>
<b>Date of Meth Panel meeting:</b>	22 - 26 February 2010
<b>Title and number of Request for revision</b>	Revision of assessment and data collection on manufacturer benchmark and market benchmark  AM_REV_0173
<b>Summary of the query:</b>	
Please use the space below to summarize the request for revision on the related approved methodologies.	
<p>AM0070 “Manufacturing of energy efficient domestic refrigerators” is applicable to project activities undertaken by manufacturers of refrigerators that increase the energy efficiency of manufactured refrigerators.</p> <p>The request for revision aims at: (i) revising the provisions to calculate the manufacturer benchmark and to collect the required data; and (ii) revising the provision to calculate the market benchmark and to collect the required data.</p> <p>The following are the details of the revisions:</p> <p><b>1. Manufacturer benchmark</b></p> <p><b><u>1.1 Data collection criteria for manufacturer benchmark</u></b></p> <p><b><u>1.1.1 Sales data</u></b></p> <p>The methodology requires project proponents to obtain a written statement from each retailer that the refrigerators are not exported, as a proof. The request proposes to remove this requirement. Instead of the written statement by the retailer, the revision request suggests to rely on the data from the manufacturer on the number of refrigerators sold outside the host country, per model <i>i</i> and retailer.</p> <p><b><u>1.1.2 Historical period used to determine the benchmark</u></b></p> <p>The methodology requires project participants to obtain data on rated electricity consumption of all models involved in the manufacturer benchmark for a three year historical period. The project participants highlight that this provision is not appropriate in situations where there standard used to determine the electricity consumption changes during this period. For example in India, a national standard for energy labeling scheme has been in effect for all refrigerators designs (including Frost Free and Direct Cool) since 2007 onwards. The request proposes to change this requirement so that one year or more years of technical data (energy consumption and volume measurement) measured by the same standard as per used presently at the project year in host countries can be used when three years of data is not accessible in the host country market.</p> <p><b>2. Market benchmark</b></p> <p><b><u>2.1 Sales and technical data</u></b></p> <p><b><u>2.1.1 Data source for sales and energy consumption</u></b></p> <p>The methodology requires collecting both sales and energy consumption data of all refrigerator models in the market to establish market benchmark. The request proposes that both energy consumption and sales data be provided by authorized third parties such as government agencies or private market research companies/institutes available in the Host country. Furthermore, the revision allows imported models in the market be considered to calculate host country market benchmark reference value.</p>	

In addition to this, a revision is requested that “year/period of production” should be deleted from the list of data if one chooses Option A but should be used if Option B is chosen.

### ***2.1.2 Coverage of data collection on sales and energy consumption***

The methodology requires project proponents to include sales and technical data for minimum 90% of the total sales in the market per model for the first step of calculating market benchmark. Revision has been proposed that market benchmark should be calculated using sales and technical data covering all models from national labeling schemes in host countries. The project proponents argue that normally non-labeled models are inferior to labeled models in terms of energy consumption.

Furthermore, revision has been proposed to include imported models in the calculation of market benchmark. The project participants argue that the market benchmark calculation can be distorted if only domestic refrigerators are considered because it is very common in developing countries to import high-end refrigerators that normally have low energy consumption. As a result, market benchmark value could be over-estimated if imported models are not included.

## **2.2 Calculation of market benchmark**

The methodology uses adjusted storage volume as a concept to measure volume. Revision has been proposed to add another concept of refrigerator volume as adjusted gross volume when separate storage volume for fresh food and freezer space is not available. The project proponents argue that in many countries, gross volume is more recognized than storage volume in the market because storage volume is rather technical and people tend not to display the data to the public. Even in Europe and US where labeling schemes are well established storage volume is not accessible from the private sector.

The revision contains a conversion factor to ensure conservativeness, which can be chosen by manufacturers among two options:

Option  $\alpha$ : Default value = 0.9; and

Option  $\beta$ : Value calculated from all manufacturer data in a host country market.

**The revision requests are summarized in the table below**

<b>Category</b>	<b>Sub-category</b>	<b>AM0070 V.2</b>	<b>Issues</b>	<b>Proposed revision</b>
Manufacturer Benchmark	Buyer's letter	Buyers' letter states that project refrigerators are not exported	Several million retailers exist at the home appliances industry in developing countries	Deleted
	Model-wise energy consumption & adjusted storage volume data	All three historical years of data to be collected	National standards during manufacturer benchmark period are not agreeable to one another	Most recent 1 year data can be used as an alternative if 3 year data is not available
	Calculation of manufacturer benchmark	Average SEC number of three historical years	Impossible to calculate average value among three-year data	SEC value of most recent 1 year if 3 year data is not available
Market Benchmark	Source of data	Not mentioned	Getting sales and technical data of all models in the market is challenging	Data from authorized third parties i.e. government agencies or private market research companies if done by appropriate sample survey
	Model-wise data collection	Production date and period	Manufacturers are reluctant to share information on this with competitors	Most of sales occurs within 1 year of production

	Model-wise market share (sales) data	90%	Not many voluntary monitoring schemes shows 90% or more coverage	All models that listed in a labeling scheme in a host country
	Consideration of imported models	excluded	Possibility of market benchmark overestimation	Included
	Calculation of market benchmark	Storage volume-wise	Storage volume is not commonly used in almost every part of this world	Gross volume-wise with two options on conversion factor

#### **Recommendation by the Meth Panel:**

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

Please, refer to the box below.

(b) Please use the space below for providing guidance, as per Para 93 of EB25 Report, on what type of projects need to revise the PDD as a consequence of the suggested revision, if the recommendation is to revise the methodology.

Please, refer to the box below.

#### **Answer to authors of the request for revision by the Meth Panel :**

Please use the space below to provide an answer to the authors of the above query

The Methodologies panel recommends to approve the request for revision partially.

The following are the details of the Meth Panel's response:

##### ***1) Sales data by the manufacturer***

After consultation with the project participants, the Meth Panel recommends to broaden the approaches on how to demonstrate that refrigerators sold by the project manufacturer are used in the host country. A new option is provided. This option considers all refrigerators as sold nationally for which it can be demonstrated through appropriate documentation that applicable national final-consumer taxes (e.g. VAT) have been paid. In this case, it can be deemed unlikely that the refrigerators will subsequently be exported.

##### ***2) Historical period used to calculate the benchmark***

The Meth Panel agrees with the proposal. In case the standard to determine the storage volume or the rated electricity consumption changes, a shorter historical period may be used, starting with the first calendar year where the new standard was fully implemented up to the most recent year for which data is available. However, this period should include at least one calendar year.

This issue is not only relevant for the historical period used to calculate the benchmark but could also be an issue if the standard changes during the crediting period. After consultation with the project participants, the Meth Panel recommends that in such cases the benchmark should be updated.

##### ***3) Data used to calculate the market benchmark***

The Meth Panel agrees that the necessary data may be collected by third parties, such as private market research companies. However, the language proposed with regard to the coverage of the data and the sampling is vague and may invite for gaming. If sampling should be used, more specific language how sampling should be undertaken must be included, as in other approved methodologies. Given that representative market data is key for the calculation of emission reductions, more precise language is required.

After consultation with the project participants, the Meth Panel deemed as not appropriate that, in the case

that a national labeling scheme exists, the market benchmark is calculated based on all appliances, including those for which no information on energy performance is available, implicitly assuming that appliances without information on energy efficiency do not belong to the top 20% performing appliances in the market. If project proponents wish to revert to the panel on this issue, they must substantiate their arguments on why their proposed approach is conservative, by using relevant data and documentation.

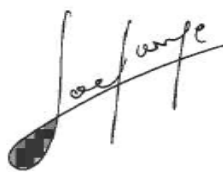
The consideration of imported models as an option is appropriate. The Meth Panel recommends to accept this proposal and to include this as an option in the methodology. The proposed language requires improvement. This is reflected in the draft revised methodology recommended to the Board.

In line with the proposal by the project proponents, the Meth Panel recommends to change that the refrigerator data should be used based on the point of time of sale and not based on the point in time of production.

#### ***4) Storage volume***

The current proposal to use a single default value for all type of refrigerators is not well substantiated. It is not clear how the default value has been derived from Indian data, given that the PPs claim that the necessary data is not publicly available. Moreover, it is not clear whether the default value represents the average situation or whether it has been chosen in a conservative manner. It is also not clear whether this value is also representative for other markets. In particular, it appears doubtful whether one default value can be used for different types of refrigerators, given that this impact refrigerators without freezing compartment differently than refrigerators with freezing department. If data on the adjusted storage volume is not available, the Meth Panel recommends to develop an approach how the adjusted storage volume can be calculated in a simplified manner based on the type of refrigerator. For example, a factor of 1 may be used for refrigerators without different compartments, whereas different factors may be applied for refrigerators with freezing compartments, considering the temperature of the freezing department. Any proposal should be substantiated by relevant data.

The Meth Panel also highlights that generally the quality of the language in the draft AM requires improvement. The language should be clear and precise and the methodology should apply any new approaches consistently.



Signature of Meth Panel Chair .....

Date: 26/02/2010

(Lex de Jonge)



Signature of Meth Panel Vice-Chair .....

Date: 26/02/2010

(Philip Gwage)

**Information to be completed by the secretariat**

F-CDM-AM	AM_REV_0173
Name of the authors of the query:	KEMCO
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