



IETA
INTERNATIONAL EMISSIONS
TRADING ASSOCIATION

Response to Call for Public Input

March 31, 2009

CDM Executive Board
UNFCCC Secretariat
Martin Luther King Strasse 8
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Germany

Dear Mr. de Jonge,

I write to you in response to the call for input launched at EB 45 concerning the draft “Tool to determine the baseline efficiency of thermal or electrical energy generation systems”. IETA is generally pleased with the guidance and welcomes the fact that it allows for the use of an array of different approaches. That being said, IETA would like to make the following comments on the tool as now drafted.

1. Unnecessary restriction of Load output to kW or MW

The Section I definitions stipulates, “Load refers to the output of the energy generation system at which the system is operated during efficiency determination tests. It is expressed as kW or MW.” The tool, however, is referring to electrical and thermal energy generation systems. IETA believes that the output from the system, therefore, should not be restricted to kW or MW (which represent output from power generation system) but rather should include kCal, kJ, MCal or MJ also (which represent output from thermal energy generation system).

2. Need for guidance in defining fuel quality

Footnote 1 indicates that the “tool is not applicable to systems that use multiple fuels or different qualities of fuel within the same fuel type.” There is no indication, however, on how to determine fuel qualities or on how to qualify one fuel as different from another. IETA suggests the indication of a tolerance value, e.g. +/- 2.5 % of a weighted NCV (MJ / tonne) or emission factor (kg CO₂ / MJ energy content).

3. Need to include cases of multiple fuel use

Footnote 1, quoted above, also excludes multiple fuel use. In practice, however, regimes relying on multiple fuels are prevalent. In poorer countries, where the fuel supply is not stable, multiple fuel use is widespread. IETA believes that specific guidance should also be provided for dual fuel engines that (i) run on multiple fuels in a consecutive mode or (ii) use multiple fuels in a co-injection mode where diesel [or another fuel] is injected in small amounts. The tool may cover consecutive use of multiple fuels by looking at the fuels individually, but this must be made explicit in the tool through allowing the project proponent to document the efficiency of each of the fuels individually and then taking a conservative value of the average efficiency as the baseline efficiency or distinguishing between the different periods. In co-injection mode, the efficiency depends on the injection ratio of the fuels. Since that ratio is variable, IETA believes that the co-injection case (ii) may be excluded from the tool, except for cases where the ratio is fixed.

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IETA suggests that explicit directions be added to allow the consecutive use of multiple fuels and that the following wording be introduced into footnote 1:

The tool is not applicable to systems that use multiple fuels that are co-injected and no fixed ratio can be evidenced, nor to systems using different qualities of fuel within the same fuel type. Fuel quality shall be considered “different” when [add reference to tolerance value or emission factor].

4. Clarify load as “main operating parameter”

On Page 2 of the tool, under “Also, the following conditions apply:” the tool stipulates that it “can only applied only if load is the main operating parameter that influences the efficiency of the energy generation system.”

IETA understands that the Secretariat clarified at EB45 that they derived this applicability condition because of a perception that while several others types of equipment, like chillers, have more significant impacts from ambient conditions, causing a very complex scenario where the efficiency is impacted by a lot of other things, the Secretariat believes that boilers are mainly affected by load. IETA believes that this condition must be further clarified in the tool however, possibly through the inclusion of a definition of what constitutes the “main operating parameter” and how it should be identified. There are still many other parameters which can influence efficiency.

5. Allowing for small retrofitting measures

IETA believes that option A of the tool entails overly strict applicability conditions, for the following reasons:

- (1) Actual efficiency of the energy system is generally lower than the “passport” efficiency at the day of installation, due to the aging of equipment.
- (2) Furthermore, it is highly unlikely that modernized equipment would have a higher efficiency than the initial efficiency of the equipment, unless the major parts of the energy systems have been replaced completely by recently designed, more efficient parts.
- (3) Since most equipment has undergone at least some retrofitting after a certain time, Option A will be unworkable in many cases.

IETA advocates, therefore, for the differentiation between major and minor retrofitting measures in the applicability conditions for Option A, and argues that Option A should be allowed for cases involving minor retrofitting.

IETA suggests that the wording be changed from, “if no retrofitting was done...” to “If no major retrofitting was done...” and we believe that the following definition of “major” retrofitting should be included in a footnote or in the “Definitions” section at the beginning of tool:

Major Retrofitting - Retrofitting that envisages the replacement of core parts (units) of the Energy Generation System, it i.e. may include replacement (where applicable for the energy generation system, depending whether it is only power generation, or only thermal generation) of boiler, preheaters, turbines, generators, ducting system, condensers, cooling water system, milling system, exhaust gas system, etc. At the same time Major Retrofitting does not include measures like repair and/or optimization of the main parts (units) of the energy system. These measures may be i.e. improvement/repair of insulation, repair of heater housing, re-blading of shafts, cleaning of boiler piping, etc.



6. Suggestion to allow use of manufacturer values instead of direct measurement

Under Option B, page 4, the tool stipulates, “Efficiency determination tests shall be conducted for the entire system as a whole including auxiliary equipment, such as the fuel conditioning system, preheating systems, etc. All energy inputs and outputs, such as the feed water supply or energy losses through blow down losses, shall be taken into consideration. Measurements shall be done using calibrated equipments as required by the relevant national / international standards”.

IETA would like to suggest that standard assumptions or values provided by the manufacturer be allowed to be used for: (a) the auxiliary consumption of the types of equipment mentioned above, and (b) blow down losses (which is not a major monitoring parameter), in cases where measurement of these is not possible or available to the project proponent.

7. Additional default values

In Table 1, a default efficiency value is provided for “old coal fired boiler,” but not for “new coal fired boilers. IETA requests that a default value also be provided for “new coal fired boiler.”

Also, in Table 1, default efficiency values are provided only for thermal generation systems, not for power generation systems (without any explanation in the tool as to why this is the case). IETA proposes, therefore, that the default efficiency values be added for power generation systems. The following are indicative only¹ and need to be adjusted and adopted by the Methodology Panel:

- Open Cycle Steam Turbine Cycle - e.g. 35%
- Gas Turbines - e.g. 32%
- Gas reciprocating engines - e.g. 48%
- Combined Cycle - e.g. 55%

We believe that the integration of these comments and suggested changes will improve the tool significantly, and we hope that you will take our comments into consideration.

Sincerely,

Henry Derwent
President

¹ The EB might consider using the default efficiency values from the grid tool for these values.

