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**የአካባቢ ጥበቃ ባለሥልጣን**  
 The Federal Democratic Republic of Ethiopia  
 ENVIRONMENTAL PROTECTION AUTHORITY

ቀን 12 JAN 2011  
 Date  
 ቁጥር 12/1-1/692  
 Ref. No.

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 Bonn, Germany

*Subject:* **Public input from Ethiopia, through the DNA to the current call for input towards the “Draft tool for baseline identification” and “Draft tool for baseline emissions calculation”**

Dear Madam/ Sir,

In my capacity as the Designated National Authority to the Kyoto Protocol of the UNFCCC of the Federal Democratic Republic of Ethiopia, I have hereby attached, our input on the request for comments regarding the “draft tool for baseline identification” and the “draft tool for baseline emissions calculation”.

Sincerely,

Dessalegne Mesfin  
 Deputy Director General



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## Public Input from Ethiopia for the “Draft tool for baseline identification” and “Draft tool for baseline emissions calculation”

While the existing tool for the determination of the Grid emissions factor (GEF) for an electricity system is too perverse to be applicable for countries like ours, the currently emerging opportunity in the form of call for public input is one of a kind to improve it. We believe this same opportunity could have been created many years before though.

Even though the draft tool specifies activities broadly in the form of MABSs, data on grid emissions factor is critical when we deal with any MABS. It is so for activities with either energy output as a product or energy input into a system to produce a product within a certain project boundary, all connected to a grid. However again, the existing GEF calculation tool is illogical in many ways to be applicable uniformly to all nations alike. Here are some of the reasons;

- While it seems is custom made for nations with huge dirty plants hanging on the grid, it doesn't equally address the condition to nations like Ethiopia with huge clean plants hanging on the grid, even if they are not meeting national demands.
- it is based on the assumption that the existing grid serves as a representative of the energy supply scenario of a certain nation for the power plants already connected and for the power plants yet to be connected now and in future development endeavors.
- It doesn't address or factorize the percentage of population not connected to the grid at all
- It doesn't factorize the annual per capita energy consumption of an individual in a host nation ( weather connected or not connected to grid) compared to what is required as per the expectation for a decent living
- It doesn't differentiate the use of the factor for project activities of either energy supply or energy input scenarios.

In line with each bullet point we propose the existing tool to be sincerely adjusted to accommodate;

- A. For nations with more than 50% clean energy power plants on the grid, the baseline grid emission factor applicable for new power plants connected to the grid should be calculated based on weighted average.

If  $d$ = the annual per capita energy demand of a citizen for decent living

$P$ = is the total number of population in a host nation by the end of the last year

$G$ = the total demand of a nation that should have been supplied =  $PXd$

1. For energy generation project activities

- i. If X is the energy actually generated from power plants already connected to grid; its emission factor  $GEF_e$  contributes  $X/G$  to the total average Grid emission factor applicable to a host nation.
- ii. If Y is the energy that still needs to be generated to achieve demand G, its emission factor  $GEF_y$  would be benchmarked to that of diesel,  $EF_d$  or gasoline,  $EF_g$  and contributes  $Y/G$  to the total Grid emission factor
- iii. If N is the energy generated by a new power plant connected to the grid, the baseline emission factor for emissions reduction calculation  $GEF_n$  is then calculated as;

$$GEF_n = GEF_e * X/G + EF_d * Y/G$$

Note that the per capita energy demand is composed of an individuals share from the energy actually supplied to him plus the energy a nation spends to deliver other services or products and the energy a nation consumes for export earning.

2. For non energy generation CDM project activities on establishments connected to grid

- The existing grid and its emission factor calculated based on existing power plants only (essentially the existing tool) serves as a baseline for establishments currently connected to the grid.
- The provision of the particular CDM methodology is then followed on how to update the emission factor annually or end of crediting period

- B. For nations with less than 50% clean energy power plants on the grid, the baseline grid emission factor applicable for new power plants connected to the grid should be calculated based on the existing tool.

Other approaches are also possible as far as the above basic underlying benchmarks of profiling national conditions are critically factorized in the baseline emission estimation tool.

This way, it becomes sensible that nations with good energy track record are incentivized than punished. This way it factors in suppressed demands and scarcities. This way it factors in actual national conditions. This way it encourages nations to continue to responsibly plan and do well in the future too.

It is also rational to include scenarios to credit power plants that have been commissioned recently in nations but not yet registered as CDM project just because the existing tool is too narrow and this call was too late to accommodate public inputs earlier.