MADRAS SCHOOL OF ECONOMICS
post-graduate teaching and research in economics

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Ref: Call for public inputs on the draft "Consolidated methodology for electricity and heat generation from biomass residues" methodology prepared by the Meth Panel.

Dear CDM Team,

I would like to call the attention for a relevant aspect that should be taken into account when using Financial Analysis for demonstrating the additionality of typical biomass residue co-generation projects.

In most of the cases it is assumed that a so-called "less efficient" power plant would be built in the absence of the proposed CDM project activity (baseline scenario). In these particular cases, the financial calculation (NPV or IRR calculations using benchmark analysis) should ideally have to necessarily be developed in a way that ONLY the associated incremental capital expenditures in new equipments and incremental operation & maintenance costs required for building and operating a more efficient power plant are to evaluated against the potential also incremental revenues associated with sales of excess electricity generated by the more efficient power plant (under the CDM project context) from the IPP cogeneration plant.

Moreover, if it is correctly assumed that steam to be generated by a typical biomass residue proposed project is also required for the industrial process in question (i.e sugar/ethanol production, pulp production, etc...) in both the project and baseline scenarios, it is thus completely unfair to consider the TOTAL required investment in equipment (boiler, turbines, pipelines, etc) and the TOTAL O&M costs associated with the power plant in the IRR/NPV calculations. This is an inconsistency that can be observed in the majority of ACM0006 projects.

The correct rationale is that typically the CAPEX in new equipment and O&M costs for a cogeneration project is to be expected to be remunerated both by electricity generation and by the production of the industrial facility in question (where steam is normally a crucial input resource for production of pulp, sugar, ethanol, wood products, etc…). By taking into account that steam generation demanded by the industrial production process under both baseline and project contexts (as required by the CDM methodology), I am convinced that, if the IRR calculation for the project is indeed correctly calculated (by only considering the incremental start-up costs and O&M costs (difference of start-up and O&M costs between the project's more efficient power plant (and thus more costly) and the baseline less efficient power plant), the calculated IRR will be significantly higher than the values normally presented in the PDDs for ACM0006 projects! It is obvious! It is kind of basics of corporate finance that the IRR FOR INCREMENTAL INVESTMENT (NOT TOTAL INVESTMENT) from choosing the larger/more efficient project instead of the smaller/less efficient project is to the type of analysis to be carried out. The incremental cash flows are to be the differences between the cash flows of larger/more efficient project and those of the smaller / less efficient project.

Another particular case that is missing to be properly addressed by ACM0006 methodology is the particular case of sugar cane bagase cogeneration projects where in the baseline scenario less efficient power plant uses most of generated steam for the mills and under the project scenario, project power plants have electric mills (powered by the project). In these particular cases, it is possible to claim emission reductions for the generation of renewable electricity which displaces the generation of steam also generated from a renewable energy source (bagase). This is an inconsistency which ACM0006 and the new proposed meth both fail in addressing in a fair manner.

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