Response of the Project Participants to the request for review for: "Compañía Azucarera Hondureña S.A. cogeneration project" (1035)

The question is common to all requests for review. Therefore, the comments of the project participants to this question are valid to all requests. In the following text, the reasons for request are *italicized*.

Requests 1, 2 and 3

The thermal firing capacity at the site before and after the project activity should be clearly stated. On this basis it should be transparently justified how the requirement of scenario 14 of the approved methodology that the project should "increase the power generation capacity, while the thermal firing capacity is maintained" has been met.

In the Response form for request for clarification on Approved Methodologies F-CDM-AM-Clar_Resp_ver 01.1 - AM_CLA_0035 / 0036, issued during the Meth Panel meeting of 15-19 Januay 2007, it was recognized that scenarios 11 and 14 of methodology ACM0006 have a certain overlap: some project types may effectively be applicable to both scenarios. It was also agreed that the difference between power capacity expansion projects and energy efficiency improvement projects may not be fully clear as currently stated in the methodology.

It was also stated that, for scenarios 11, 12, 13 and 14, no additional quantity of biomass residues is used as a result of the project activity. Any increases in the bagasse production in this project are due to Compañía Azucarera Hondureña's business expansion and can not be attributed to the implementation of the CDM project. The project itself does not have an impact in total thermal energy generation either, as project owners did not increase sugar production because of the project.

The project developers had exhaustive discussions with the DOE in order to define the scenario, 11 or 14, that better suits this kind of project activity. Scenario 14 was chosen because the equation to determine the additional electricity generation (EGy) for scenario 14 is more appropriate for this project than the equation for scenario 11. The equation for scenario 11 simply subtracts the historic electricity generation, while the equation for scenario 14 compares the efficiencies prior and after project implementation. In Compañía Azucarera Hondureña project, the production of sugar is increasing and the combustion of bagasse as well. Hence, the electricity generation capacity would increase also in the baseline, just not to the same extent as in the project. The equation of scenario 14 captures this, while the equation for scenario 11 does not.

The numbers below show that the incremental biomass residue consumption is higher than the associated thermal energy generation during the project activity:

Baseline data:

Boilers 1 and 2

Capacity   : 36.3 tons/h

Steam enthalpy   : 704.58 kcal/kg steam

Boiler 3

Capacity   : 45.4 tons/h
Steam enthalpy   : 704.58 kcal/kg steam

Efficiency of both boilers: 56%
Average bagasse consumption: 193,000 tons
Harvest days:145

Project data:

Boiler 4

Capacity: 150,000 tons/h
Steam enthalpy: 704.58 kcal/kg steam

Efficiency: 67%

Boiler 5

Capacity: 100,000 tons/h
Steam enthalpy: 808.69 kcal/kg steam
Efficiency: 68%

Bagasse consumption: 306,000 tons
Harvest days: 100

Taking boiler capacity (tons of steam/h)*1000(tons to kg)*Enthalpy (kcal /kg steam) *4.18/3600000(kcal to MWh) * Harvest hours /Efficiency/Tons of bagasse, the following results were obtained:

Baseline =
(119*705)*1000*4.18/3,600,000 (kcal to MWh)*24*145 /0.56/193,000 = 3.26 MWh/tons bagasse

Project =
(150*705)*1000*4.18/3,600,000*24*100/0.67/306,000 +
(100*808)*1000*4.18/3,600,000*24*100/0.68/306,000 = 2.43 MWh/tons bagasse

Note that, with the expansion of sugar cane production, this same quantity of bagasse would be burned in the baseline, but with an efficiency lower than in the project. It must be stressed again that any increases in the bagasse production in this project are due to Compañía Azucarera Hondureña's business expansion and can not be attributed to the implementation of the CDM project.