



Mr. José Domingos Miguez  
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November 8<sup>th</sup> 2006

Re Request for review of the request for registration for the CDM project activity "16MW bagasse based co-generation plant by GMR Industries Ltd. (GIDL)" (Ref. no. 0552)

Dear Mr. Miguez,

SGS has been informed that the request for registration for the CDM project activity "16MW bagasse based co-generation plant by GMR Industries Ltd. (GIDL)" (Ref. no. 0552) is under consideration for review because four requests for review have been received from members of the Board.

The requests for review are based on the same reasons below and read. SGS would like to provide an initial response to the issues raised by the request for review:

Request 1, 2, 3 & 4:

**Comment 1:**

The baseline scenario chosen (12) does not correspond to the project activity. The methodology scenario chosen specifies that "The existing unit(s) are only fired with biomass", while the project activity states that "The cogeneration Plant uses bagasse as fuel ... along with some coal co-fired."

**SGS Reply to comment 1:**

Scenario 12 involves the installation of a new cogeneration unit which is operated next to an existing biomass power generation unit. We would like to clarify that for the existing and new boiler use, biomass residues as defined in the methodology are the fuel used in the baseline and the project plant. However, very limited amounts of coal will be co-fired at the time of start up only. Co-firing of fossil fuels during start up is a common requirement for bagasse fired boilers to reach optimum operating conditions, please refer page 11 of "Bagasse fired boiler operating procedure" <http://72.14.235.104/search?q=cache:a-P5tOmdt2MJ:www.epa.gov/ttn/chief/ap42/ch01/bgdocs/b01s08.pdf+bagasse+boiler+standard+operating+procedure&hl=en&gl=uk&ct=clnk&cd=1>.

A paper with specifics on bagasse combustion in sugar mills has been attached to this letter for your reference (Annex 3).

It was our interpretation that this therefore still meets the application of scenario 12 and the applicability condition of the methodology in general as outlined on page 3 of ACM0006 Version 3 which states that "No other biomass types than *biomass residues*, as defined above, are used in the project plant and

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these biomass residues are the predominant fuel used in the project plant (some fossil fuels may be co-fired)”

As stated before the co-firing of coal is at start up only and this will only occur at the beginning of the sugar cane season. Therefore these emissions are considered to be relatively small. Monitoring this coal consumption and subtracting project emission due to this (if any) from the emission reduction, was therefore considered as a conservative approach. The revised PDD attached as Annex-1 and has been rephrased accordingly and the same is also mentioned in validation report attached as Annex-2.

**Comment 2:**

Energy balance is necessary: (i) to determine heat generation; (ii) to determine the power generation; (iii) for crosschecking of biomass amount; and (iv) for crosschecking of coal amount. The energy balance should include bagasse energy, coal energy, boilers efficiency, steam parameters at main system points, including extraction points and system components energy efficiency.

**SGS Reply to comment 2:**

Methodology ACM0006 suggests (refer page 40) that *“If the amount of biomass combusted is ESTIMATED from the amount of biomass delivered to the project site, a procedure should be established to undertake an energy balance for the verification period, considering the stocks of biomass at the beginning and end of each verification period.”*

As the quantity of fuels combusted in the project activity is being measured directly, it does not require to carry out the energy balance for the project activity. It was a typographical error in the PDD which has been rectified in revised PDD (version 3.0).

**Comment 3:**

The following corrections to the Monitoring Plan are required:

1. Metering of biomass quantity

ACM0006v03 p.40 ID1 “Quantity of biomass type i combusted in the project plant during the year y.” These parameters should be measured continuously and not estimated. PDD p.19 ID1 states that “the parameters are estimated and not measured.”

2. Calorific value of biomass and of coal

ACM0006v03 p.40 ID2: “Net calorific value of biomass or fossil fuel type i”. These parameters are not monitored in the PDD Monitoring Plan nor are they mentioned at all in the PDD.

3. Heat quantity

ACM0006v03 p.45 ID14: “Net quantity of heat generated from firing biomass in the project plant” This parameter is required for CHP plant. PDD declares that the project is CHP plant. This parameter is not monitored in the PDD Monitoring Plan.

4. Thermal energy efficiency

ACM0006v03 p.47 ID22: “Thermal energy efficiency”. This parameter is not monitored in the PDD Monitoring Plan.

**SGS Reply to comment 3:**

1. Metering of biomass quantity

The biomass quantity in the project activity is being measured directly using weighing scale. This was not stated correctly in the last version of the PDD and is corrected in the revised PDD (version 3.0) attached



as Annex 1. SGS may have overlooked this statement in the PDD however it was clear from discussions with the project developer and the visit of the assessment team to the project site that biomass was being measured and not estimated.

#### 2. Calorific value of biomass and of coal

Methodology (page 41, ID 2; Comments) suggests that “Monitoring of this parameter for project emissions is only required if Methane (CH<sub>4</sub>) emissions from biomass combustion are included in the project boundary.”

The project activity does not include Methane (CH<sub>4</sub>) emissions due to biomass combustion so monitoring of this data is not required. As requested the monitoring of calorific value of fossil fuel is included in the revised PDD (version 3.0).

#### 3. Heat quantity

Monitoring of this data is required for estimation of emissions reduction due to heat displacement. The project activity does not consider emissions reduction due to heat displacement so monitoring of this data is not required. Please refer methodology ACM0006 page 32 case (a).

#### 4. Thermal energy efficiency

Project activity uses same boilers as prior to the project activity and thermal efficiency of the boilers pre and post project activity is similar or larger and so ER heat,  $y = 0$  (page 31; ACM0006).

The project activity does not consider emissions reduction due to heat displacement so monitoring of this data is not required.

We hope that the above clarifications answer the questions of the EB and apologize for overlooking the misstatements in the PDD and the need to monitor the calorific value of fossil fuel. We also hope that the EB can agree with our interpretation regarding comment 1.

Sanjeev Kumar (+91 9871794628) will be the contact person for the review process and is available to address questions from the Board during the consideration of the review in case the Executive Board wishes.

Yours sincerely

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#### **Annexes:**

Annex 01: Revised PDD.

Annex 02: Revised Validation Report.

Annex 03: Article on “Bagasse combustion in sugar mills”

<http://www.epa.gov/ttn/chief/ap42/ch01/final/c01s08.pdf>.