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Request for review

Dear Sirs,

Please find below the response to the request for review formulated for the CDM project with the registration number 0871. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,



Werner Betzenbichler Carbon Management Service



Response to the CDM Executive Board

Issue 1:

The baseline for the CDM project activity does not reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity. It has not been established in a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors, additionality, and uncertainty.

Response by the project participants:

Fortuna Hydroelectric Power Station "will increase the energy dispatched in the national interconnected grid of Panama, which is composed of both thermal plants fuelled by fuel oil, diesel, bunker C and diesel marino, and hydroelectric power plants" (PDD, p.7). "The increased generation from Fortuna will therefore displace energy generation from thermal plants" (PDD, p.10). Anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity have been accordingly established in a transparent and conservative manner as per methodology ACM0002 – version 6 as "the product of the baseline emissions factor" – which represents emissions of the Panamanian interconnected grid – "times the electricity supplied by the project activity to the grid minus the baseline electricity supplied to the grid"

Response by TÜV SÜD:

The stated issue is quite generic questioning the whole baseline consideration. TÜV SÜD has expressed by requesting registration that it considers the baseline and additionality discussion being valid for registration as CDM activity. It is not easy to respond to this issue as it does not refer to any specific concern. We expressed extensively by our validation protocol and report why we consider the baseline being established in a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors, additionality, and uncertainty.

Issue 2:

The monitoring methodology described in the PDD is contradicting. While B.7.2. (description of monitoring plan, p. 23) states the only variable to be monitored is the total amount of the electricity produced, Annex 4 (monitoring information, p. 4) states that two contributions shall be measured (the contribution of the project activity, i.e. the 5 additional creeks vs. the total contribution of the lake Fortuna). It remains unclear, however, how the latter will be done.

Response by the project participants:

Fortuna recognizes that the structure defined in the Project Design Document Form Version 03.1 is very effective on providing for clarity of information regarding the identification of variables to be monitored: data and parameters that are determined only once, remain fixed



throughout the crediting period and are available at validation – and thus are not to be monitored – are presented in section B.6.2 of the PDD; all the other data and parameters – that shall be monitored – are presented in B.7.1. As the relevant PDD submitted for registration has adopted the mentioned form version, one promptly finds in B.7.1 that the only variable to be monitored is the "Electricity supplied to the grid by the project (net electricity generation)", what is reiterated in B.7.2.

With the aim of, inter alia, ensure that only net electricity generation will be counted for, further information is provided in Annex 4 (monitoring information, pp. 31-33). Also an overview on Fortuna's measurement procedures is presented, including information water measurement (the mentioned "two contributions"), just in order that any interested parties may understand the system as a whole.

Response by TÜV SÜD:

TÜV SÜD considers the project participants' approach acceptable adding parameter for plausibility checks (contributions of water flows) to annex 4. This is exceeding the requirements provided by the methodology and existing EB guidance that does not yet refer to any possibilities for checking parameter by redundant calculation approaches. It is already providing guidance for later verification. The tables in section B are correctly filled in accordance with the underlying methodology.

Issue 3:

As the PDD (even after 11 Clarification requests and 18 CARs) is still poorly drafted and difficult to understand, it remains unclear which parameters will be monitored (and how the baseline will be determined: fixed vs. monitored). If the validated monitoring is implemented as described in B.7.2, monitoring would result in incorrect calculation of emissions reductions attributable to the project.

Response by the project participants:

As aforementioned in the answer to question 2, one promptly finds in section B.7.1 of the PDD that the only variable to be monitored is EG_y , the "Electricity supplied to the grid by the project (net electricity generation)", what is reiterated in B.7.2.

As presented in the PDD, emissions reductions (ER_y) correspond to emissions baseline and are plainly defined by equation 6 (p.16):

$$ER_{y} = (EG_{y} - EG_{baseline}) \cdot EF_{y}$$
(6)

 $EG_{baseline}$ and EF_y , presented in section B.6.2, are determined only once (1.685.189 MWh and 0,5593 tCO₂/MWh, respectively), remain fixed throughout the crediting period and are available at validation – and thus are not be monitored.

Therefore, if the validated monitoring is implemented as described in B.7.2, the monitored quantity of energy exported to the grid (EG_y) allows the correct and simple calculation of emission reductions attributable to the project by the following equation:



 $ER_v = (EG_v - 1.685.189 \text{ MWh}) \cdot 0,5593 \text{ tCO}_2/\text{MWh}$

Response by TÜV SÜD:

TÜV SÜD follows the explanation given be the project participants above. The PDD strictly applies the calculation procedures given by the methodology. There is no reason leading to incorrect calculation of emissions reduction in the context of the application of the formulae provided by the methodology.

Issue 4:

The PDD states that the start of the crediting period is 01.01.07 – however, the crediting period cannot start before the time of registration. Moreover, the Validation report states that "the project is deemed to qualify for retroactive registration", which is not applicable.

Response by the project participants:

Fortuna acknowledges, as project participant, the general rule that "certified emission reductions shall only be issued for a crediting period starting after the date of registration of a clean development mechanism project activity", stated in paragraph 12 of the CDM modalities and procedures.

On the other hand, exception to the rule is defined in paragraph 13 of the same document, amended by decision 7/CMP.1, which states that "project activities that started in the period between 1 January 2000 and 18 November 2004 and have not yet requested registration but have either submitted a new methodology or have requested validation by a designated operational entity by 31 December 2005 can request retroactive credits if they are registered by the Executive Board by 31 December 2006 at the latest". Through decision 1/CMP.2, it is further decided to "extend the deadline for the submission for registration of the clean development mechanism project activities referred to in paragraph 4 of decision 7/CMP.1 from 31 December 2006 to 31 March 2007".

As presented in the PDD, the project activity has started on 25 August 2004 (p.24), and has received a pre-Validation Report on 18 October 2004 (p.3). In addition, submission for registration was made publicly available on 21 February 2007. For that reasons, the project participants understand that the relevant project activity qualifies for requesting retroactive credits.

Response by TÜV SÜD:

With reference to the explanation given above TÜV SÜD expresses that not the pre-validation report is justifying the retroactive registration but the fact that the project participants have requested for revisions in existing and addition of new small scale methodology versions for this project activity prior to 31 December 2005. Information on this fact is available at UNFCCC secretariat, and is referenced in our validation report (p. 10).