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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 1507. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Werner Betzenbichler
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Response to the CDM Executive Board

Issue 1: “*The DOE is requested to provide greater clarity regarding how the input values applied in the investment analysis have been validated*”.

Response from the project participant

For the calculation of the IRR of the proposed project activity, the parameters listed in the Project Proposal Reports (PPR) of both levels of the project activity have been used as input values applied in the investment analysis.

The PPRs were completed (October 2004) by the “Yunnan Lingyu Water Conservancy and Hydroelectric Power Investigation and Design Co., Ltd.” This entity is an independent organization which is qualified to compile design reports for hydropower projects (it has obtained C grade in water conservancy industry, electricity industry (hydro power) and a C grade in engineering investigation industry (engineering survey), both issued by the Construction Bureau of Yunnan Province). Additionally, the PPRs have been approved (January 2005) by the local Development and Reform Commission of Dehong Dai-Jingpo Autonomous Prefecture. The PPRs can be considered an independent and realistic assessment of the proposed project activity, including the parameters listed therein which are used as input values in the investment analysis.

The PPRs were completed in October 2004. Based on these PPRs, it was clear to the project entity that the proposed project activity would not be a commercially attractive option. Around the same time of completion of the PPR (11th of October 2004), the local government of Longchuan County informed the project entity about the possibilities offered by CDM and suggested the project activity could be implemented with CDM revenues. Consequently, the project entity decided (i.e. directorate decision) in December 2004 that the project activity could be implemented with CDM revenues and decided to pursue CDM project status. As the PPRs were the basis of the decision to implement the project only with the prospects of CDM revenues, the parameters listed in the PPRs are appropriate to use as input values in the investment analysis.

As the proposed project activity consists of two level hydropower stations for which two separate PPR have been completed, we have added additional separate IRRs to the PDD (complementary to the existing for the proposed project activity). The complementary IRR calculations will be submitted together with the revised PDD.

When checking the PPRs, we found a small mistake in one of our inserted English comments (the completion date). We therefore submitted to the DOE slightly revised PPRs: Revision are:

- We included a translation of the cash flow table for clarity.
- We added “certification documents” of the organization that completed the report.
- We corrected the English translation of the date of completion.

Please note that the Chinese PPRs (including values mentioned, completion date, etc) have NOT been revised in any way!

Finally, we have revised the starting date of the proposed project activity to the date of signing the equipment purchase contract for the Bienaihe 1st level station (i.e. January 2005) as this can be considered the earliest starting date of the project activity. This is after the CDM consideration events and does not affect the timeline of the proposed project activity but is in our opinion more correct and in accordance with the requirements of EB38.

Response by TÜV SÜD

As described above, the parameters applied in the IRR calculation were taken from Project Proposal Reports (PPR) as checked during the project validation assessment, refer to Annex 2 of the validation report (IRL) No. 5 s) and 6 t).

The reports were completed in October 2004, and are thus considered to be the applicable source on which the decision to implement the project was based upon.

The serious CDM consideration evolved from various events in autumn 2004, and it could be justified by the low projected economic returns in the PPRs, and evidenced by the Notice from the Government of Longchuan County who recommended the project entity to apply for CDM as well as by the Directorate decision for applying CDM by means of which the final decision was taken. The final decision to go ahead with the project was made before the start of the project activity, which could be evidenced to be the date of signing the equipment purchase contract of the Bienaihe 1st level hydropower station on 10 January 2005 (IRL 5f and 6h). At that time, clearly the PPR had to be considered as reference for the decisions, as other reports, such as FSR (completed Oct. 2005) or the supplementary financial analysis report (Jan. 2006) were developed later on.

Yunnan Dehong Longchuan Bienaihe 1st and 2nd Level Hydropower Stations has always been considered as one project activity. For the purpose of additionality assessment we had however assessed both, each individual project and the two projects combined. It was shown in the PPRs that both projects had a low economic projection at the time when making the investment decision - Bienaihe 1st Level 7.59%, and Bienaihe 2nd Level 7.68%. The additionality criterion is thus fulfilled for each individual stage of the project. It was then demonstrated that a combined IRR would also lead to an IRR below the benchmark rate of 10%, the resulting IRR amounts 7.66% (refer also the IRR calculation spreadsheet as submitted with request for registration).

To increase the transparency it was decided to add the IRR calculation of each individual stage into the revised PDD, and to file subsequently the additional IRR calculation spreadsheets with this request for review response.

We can confirm the values applied in the calculations are same as in the PPRs, and the results of 7.59% for Bienaihe 1st Level and 7.68% for Bienaihe 2nd Level are also fully consistent.

In the combined IRR calculation the values of each PPR were added and the calculation then done according to the same procedure as done in the PPRs. The resulting IRR of 7.66% is in the same range, and also far below the benchmark rate.

The input values used in the IRR analysis can be confirmed to be appropriate. The PPRs were carried out by a qualified entity “Yunnan Lingyu Water Conservancy and Hydroelectric Power Investigation and Design Co. Ltd“ is holding a C grade in water conservancy industry, electricity industry (hydro power) and a C grade in engineering investigation industry (engineering survey), both issued by Yunnan Province Construction Bureau.

Further we have cross checked on basis of local and sectoral expertise the key values as following. This is based on our own extensive database in which we analyzed about 150 hydro power CDM projects in China.

Specific fixed investment costs of about 4.8 million RMB per MW are below the average rate for CDM projects in China in the same size range (about 6.5 million RMB per MW). The expected annual operational time of the turbines of about 4300 hours represents a realistic average value (average range 3500 to 4500 hours per year). The annual operating costs of in the range of 100000 to 150000 RMB per year, also represent an average value. The tariff assumed to be 0.17 RMB/kWh (including 6% VAT) has been slightly too optimistic, as the true tariff is 0.15 RMB/kWh and 0.1499 RMB/kWh respectively (both also including 6% VAT), documented by sales invoices. In the CDM context the presumed 0.17 RMB/kWh in PPR can thus be considered a conservative assumption.

Issue 2 “The monitoring plan should be revised to provide separate and distinct parameters for each of the meters related to each of the two hydro plants”

Response by PP

Section B.7.1 of the PDD has been revised, replacing the parameter for total net supply of the proposed project activity with two separate distinct parameters for the two levels of the project activity (one for Net Supply of the 1st level and one for Net Supply of the 2nd level). The revised PDD will be provided separately for review.

Response by TÜV SÜD

We can confirm the project participants response, the monitoring plan has been revised providing two distinct parameters for the each of the key meters related to each of the two hydro plants.