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Att: CDM Executive Board

Your ref.:	Our ref.:	Date:
CDM Ref 2204	BRINKS/HP	23 December 2008

Response to request for review for project 2204 "Longwangtan 15MW Hydro Power Project in Guizhou Province "

Dear Members of the CDM Executive Board:

Question 1: Further clarification is required on how the DOE has validated: a) the input values for the investment analysis as per EB 38 paragraph 54(c) guidance; and b) the suitability of the 10% benchmark (1995) when assessing the additionality with investment decision made in 2006.

a) The input values for the investment analysis as per EB 38 paragraph 54(c) guidance:

All the input parameters used in the financial analysis except for the electricity tariff are taken from the project design report (PDR) developed by Guizhou Qiandongnan Prefecture Hydro Power Reconnaissance & Design Institute in June 2004. DNV was able to confirm that the institute was a accredited 3rd party and had the qualification for the hydropower project design by checking the qualification paper of the institute during the validation process. DNV was also able to verify that the PDR was approved by Guizhou Province Qiandongnan Prefecture Development and Reform Commission by checking the approval letter dated 18 October 2004.[1] The input parameters used in the financial analysis are thus considered information provided by an independent and recognized source.

The remaining input parameter, the electricity tariff, is taken from the Notification for the electricity price of Small Hydropower Projects issued by Guizhou Province Price Bureau on 11 April 2005. The Guizhou Province Price Bureau is the local governmental office authorized to decide the tariff price. The electricity tariff used in the financial analysis is consistent with the

[1] The project preliminary design report and the approval letter by Guizhou Province Qiandongnan Prefecture Development and Reform Committee, dated 18 October 2004.

value in the Notification and was available at the starting date of the project activity, 20 August 2005. Furthermore, during the validation process, DNV could confirm that the price guidance issued by local price bureau shows that the electricity price is fixed in the past 4 years, and this price remains very stable and still valid till now.

DNV compared and cross-checked the input parameters for the financial analysis included in the PDD with the parameters stated in the PDR and the electricity tariff document[2] by the following method:

For the investment value, the value was from the PDR. The capital investment per kW installed capacity is 5 467RMB/kW. DNV was able to verify that the investment value was in the lower part of the normal range of the investment for the hydropower projects in Guizhou province at the time when the proposed project started by comparing 13 other CDM hydropower projects in Guizhou province below 15 MW. For the operational cost, by comparing the other similar hydropower projects in Guizhou province, DNV was able to confirm that the operational cost was also in the acceptable range of the hydropower project..

For the project revenue of the hydropower projects, the revenue is from the sale of the electricity, which is calculated by the electricity tariff and the amount of the electricity supplied to the grid. The electricity tariff is from the Notification for the electricity price of Small Hydropower Projects. The power generation is calculated based on the water resources of the historical data in Longwangtan river according to the PDR. While the normal range of operation hour in Guizhohu province is 3 600 hours to 4 500 hours per year, the operation hours of Longwangtan are 4,001 hours per year. These operation hours derived from the hydrological study from year 1963 to 2001, and DNV verified the study during the validation process.

The PDR was developed only ten months prior to the project's starting date.[3] Given this relative short period of time, it is unlikely in the context of the project that the input values would have materially changed. It is thus reasonable to assume that the PDR may have been the basis of the decision to proceed with the investment in the project.

In addition to the comparison of similar projects in Guizhou province, the input parameters used in the financial analyses were compared with the data reported for other similar proposed CDM projects in China, by comparing investment costs per MW, electricity tariff, percentage of O&M costs relative to total investment costs. By applying our sectoral competence, DNV was able to confirm that the input parameters used in the financial analysis are reasonable and adequately represent the economic situation of the project.

b) The suitability of the 10% benchmark (1995) when assessing the additionality with investment decision made in 2006.

The project proponent has compared the project financials against the benchmark of 10%. DNV would like to indicate that the selected benchmark is in accordance with the document No.SL16-95 (Economic evaluation code for small hydropower projects), issued by the Ministry of Water Resources of China. Though this document was issued by the Chinese ministry in the year 1995, it is the only source till date which clearly defines the expected minimum returns from such type of hydropower projects. The benchmark of 10% is most commonly used in China for assessing the financial viability of such projects. This can also be seen from other similar small hydropower

[2] Notification for the electricity price of Small Hydropower Projects issued by Guizhou Province Price Bureau dated 11 April 2005.
[3] Project construction starting permission, 20 August 2005.Water Resources Bureau of Congjiang County , Qiandongnan Prefecture Guizhou Province, the Dept of project monitoring.

projects in China, recently registered under CDM, such as Hunan Yangmingshan Three Level Hydropower Project (2145), Yunnan Lincang Zhenai Hydropower Project (1994), Fujian Wuyishan Wenlin River 2nd and 3rd Level Hydropower Station (1831) and Lijiang Xinzhuhe Second Level Hydropower Project (1879), etc., all of them referring to the document No.SL16-95.

The applicability of the same benchmark for the proposed CDM project activity can further be demonstrated from the list of existing regulations for hydropower plants in China provided in the annexure of "Notice on the current technical standard of water resources ([2006] No.05)", published by the division for construction and management, Ministry of Water Resources of China[4] and Chinese Hydraulic Engineering Society (CHES)'s website[5], which provides the complete list of regulations for the hydropower sector including expired regulations, regulations under amendment and existing regulations in China. The start date of the project activity is on 20 August 2005, which has been evidenced by the construction start permission letter the project activity, and DNV has verified the construction permission during the validation process. As a conclusion, DNV is able to confirm benchmark of year 1995 is still valid when assessing the additionality with investment decision made in August 2005.

DNV would also like to state that in the approved Preliminary Design Report (PDR), the financial projections of the project activity have also been compared against the same benchmark of 10%. The economic assessment part of the PDR was prepared by an officially qualified designing institute "Guizhou Qiandongnan Prefecture Hydro Power Reconnaissance & Design Institute", and was approved by Guizhou Province Qiandongnan Prefecture Development and Reform Commission on 18 October 2004. DNV verified the approval letter during the validation process. The approval of the PDR by Guizhou Qiandongnan Prefecture DRC also adds to the fact that the benchmark of 10% is still considered appropriate in China, as the benchmark is a decisive factor in China for the rejection or approval of the projects.

Furthermore, according to the "Economic evaluation code for small hydropower projects (Document No.SL16-95)", the code of 10% is applicable to small scale hydropower projects with an installed capacity below 25 MW, and to small scale hydropower projects with an installed capacity below 50 MW in the rural hydropower region. DNV would like to indicate that it is appropriate to use a benchmark of 10%, considering the fact that the project activity has an installed capacity of 15 MW, which is way below the installed capacity of 25 MW.

We sincerely hope that the Board find our elaboration on the above satisfactory.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION AS

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[4] http://www.mwr.gov.cn/tzgg/qt/20060926000000479251.aspx
[5] www.ches.org.cn/jishubiaozhun/001.asp