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Att: CDM Executive Board

Your ref.:  
CDM Ref 1808

Our ref.:  
DENGCP/PETMO

Date:  
3 September 2008

## Response to request for review of the project “Danian 14MW Hydropower Project in Gansu Province” (1808)

Dear Members of the CDM Executive Board,

We refer to the issue raised by the requests for review by four Board members regarding project activity “Danian 14MW Hydropower Project in Gansu Province” (UNFCCC reference number 1808) and would like to provide following initial responses to the issue raised.

*Comment 1: The DOE is requested to explain how it has validated that the range of variations of the parameters in the sensitivity analysis is reasonable, as per EB41, Annex 45, paragraph 17.*

### DNV Response:

As stated in the PDD and the validation report, the critical point method was used for the sensitivity analysis, i.e. the range of variation of four parameters needed for the project IRR to reach the benchmark of 10% was discussed.

During validation of this project, DNV was able to verify that these large variations in the parameters are not likely to happen. The supporting evidences have been provided and verified by DNV.

- Total static investment:

The investment for this project used in the financial analysis is taken from the Preliminary Design Report (PDR), which was approved 30 August 2004<sup>1</sup>. The PDR was based on the Chinese Consumer Price Index (CPI) of 2004. Since 2002, the CPI in China has increased, which was confirmed by a report regarding the increases in CPI by Center for Forecasting Science, Chinese Academy of Sciences dated in June 2007<sup>2</sup>. Both the PDR and the report were provided to and verified by DNV. As the prices for industrial products have been gradually increased in China, DNV finds it highly unlikely that the total static investment of the project will decrease by 17%.

- Power generation:

The power generation in this project is based on the Preliminary Design Report. The annual output (74 816 MWh) of the proposed project is calculated from the average value of the hydrology data

<sup>1</sup> The Preliminary Design report for Danian I & II Hydropower Project by Institute of Gannan State Hydropower Reconnaissance Design, Gansu Province in August 2004 and the approval letter by Development and Planning Commission of Gannan Tibet Autonomous Prefecture dated 30 August 2004 (Doc. No: ZhouJiGongFa[2004]285#).

<sup>2</sup> Report regarding CPI increases by Center for Forecasting Science Chinese Academy of Sciences dated in June 2007: <http://www.cefs.ac.cn/express/reportsfinal/2007%C4%EA%CF%C2%B0%EB%C4%EA%CE%EF%BC%DB%D4%A4%B2%E2%B1%A8%B8%E6.pdf>

for the river over the past 17 years. By increasing the annual output by 19% (to 89 031 MWh), it would be larger than the largest expected generation based on the past 17 year hydrological data (85 224 MWh). By verifying the PDR, DNV was able to confirm that the value used in the financial analysis is conservative, and an increase of 19% is highly unlikely to happen.

- **Power tariff:**

From the notice on feed in tariff in Gansu Province<sup>3</sup> DNV could verify that the power tariff in Gansu province was not changed from 1996 to 2004. From 2005, the price was adjusted from 0.16 Yuan/KWh to 0.18 Yuan/KWh which was confirmed by checking the new version of this notice<sup>4</sup>. From the references mentioned above, DNV can confirm that an increase in the electricity tariff in Gansu Province of 19% is not likely to happen

- **O&M costs:**

For the O&M costs, the IRR does not reach the benchmark even with an increase of 100%. This is impossible.

As per EB41, Annex 45, paragraph17, the general point of departure variations in the sensitivity analysis is recommended to cover at least a range of  $\pm 10\%$ . For the project larger variations were considered. Furthermore, the parameters used in the financial analysis for the proposed project were compared with data from similar projects in Gansu Province, and were found to be in line with these. In conclusion, DNV can confirm that the project IRR is not likely to reach the benchmark of 10%.

***Comment 2:** The DOE is requested to provide reliable evidence that the benefits of the CDM were a decisive factor in the PP's decision to proceed with the project activity and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation following the guidelines from EB 41, Annex 46, paragraph 5.*

### **DNV Response:**

In order to meet the requirement in the guidelines from EB 41, Annex 46, paragraph 5, the detailed timeline of this project, demonstrating the CDM consideration and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation, is listed in PP's response. DNV would like to provide the following description of our validation process:

- The preliminary design report (PDR) for the proposed project was finished in August 2004 and approved at the end of August 2004 in which the IRR of this project was 9.87%, and thus very close to the benchmark of 10%. The developer of this report suggested in the report the project owner to apply for CDM to reduce risks related to the feed-in tariff and geological risks. CDM was hence known to the project developer at this point of time. As the actual power tariff was lower than what stated in PDR, the project owner commissioned Gannan State Hydropower Reconnaissance Design Institute to develop a revised financial analysis<sup>5</sup>, incorporating the new feed-in tariff from 2004. DNV has received and verified the PDR and the revised financial analysis, along with the notices on the feed-in tariff. In the new financial analysis, the IRR decreased to 7.95%. A decision at a Board meeting of 8 March 2005 states that the project owner should seek CDM assistance. The minutes of the meeting was checked by DNV<sup>6</sup>. The supervision contract for the project construction is dated 20 March 2005 and this date has been chosen as the

<sup>3</sup> The feed-in tariff (including VAT) for hydropower projects with installed capacity under 50MW in Gansu province (from 1996-2004) <http://www.gansudaily.com.cn/20041229/141/2004C29A0271C002.htm>

<sup>4</sup> "The notice of feed-in tariff for small hydropower enterprises issued by Gansu Province Price Bureau" dated 08 November 2004

<sup>5</sup> The project investment analysis report for Dalian 14MW Hydropower Project by Institute of Gannan State Hydropower Reconnaissance Design, Gansu Province dated February 2005.

<sup>6</sup> Minutes of Board Meeting, Longnan Dongcheng Construction Group Corporation Limited. Dated 8 March 2005

- project starting date. The contract was provided to and verified by DNV<sup>7</sup>.
- DNV was able to verify the contract between the project owner and The Center for Development and Promotion of Science & Technology of Gansu Provincial (now act as Gansu Huike Centre for Technology Transferring on Resource and Environment) regarding the CDM project development, dated 28 May 2005<sup>8</sup>. The approval letter from the bank dated 20 June 2006, stating the CDM revenue as a pre-requisite for the repayment of the loan, was received and checked by DNV<sup>9</sup>. The contract with DNV was signed on 15 August 2006, and the PDD was published on 17 August 2006.

By verifying the evidences mentioned above, DNV is able to confirm that these evidences are reliable and the benefits of the CDM were a decisive factor in the PP's decision to proceed with the project activity and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation.

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

Yours faithfully  
for DET NORSKE VERITAS CERTIFICATION AS



Ms. Cuiping Deng  
Project Manager



Michael Lehmann  
Technical Director  
Climate Change Services

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<sup>7</sup> The supervision contract for project construction for Danian I & II Hydropower Projects dated 20 March 2005

<sup>8</sup> Contract for CDM development between Longnan Dongcheng Construction Group Co., Ltd and The Center for Development and Promotion of Science & Technology of Gansu Provincial, dated 28 May 2005.

<sup>9</sup> The approval letter for loan regarding "Danian II hydropower project" by Agriculture Bank of China Gansu province branch dated 20 June 2006 (NongYinGanFu[2006]86#)