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Att: CDM Executive Board

Your ref.:
CDM Ref 1621

Our ref.:
MAVI/ZXJ

Date:
28 August 2008

Response to request for review of the project “Inner Mongolia Bayannaoer Chuanjingsumu 49.3MW Wind Power Project” (1621)

Dear Members of the CDM Executive Board,

We refer to the issues raised by the requests for review by three Board members regarding project activity, “Inner Mongolia Bayannaoer Chuanjingsumu 49.3MW Wind Power Project” (UNFCCC reference number 1621) and would like to provide the following initial responses to the issues raised.

Comment:

1 Further clarification is required on how the DOE has validated the suitability of the input values used in the investment analysis, as per the guidance of EB 38 paragraph 54(c).

DNV Response:

As the proposed project generates financial and economic benefits through the sales of electricity other than CDM related income, a simple cost analysis (option I of the tool) can not be applied. The alternative for the baseline scenario of the proposed project is not a similar investment, therefore, option II is also not an appropriate choice. Hence, a benchmark analysis (option III of Step 2 of tool for the demonstration and assessment of additionality) is selected for conducting the investment analysis. In China an IRR of 8% with reference to *Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects*¹ is regarded as a benchmark for investments in large scale hydropower plants, fossil fuel fired plants and wind farm projects.

The project IRR without CER revenues has been verified to be 7.07%. The IRR in the approved FSR completed in December 2005 was 7.62%, still below the benchmark, when the addition of 220 kV transmission line was described but not taken into consideration in the financial calculations. The IRR of 7.07% was calculated by also taking into account the additional investment required for the construction of a 220 kV transmission line.

According to the *guidance of EB38 paragraph 54*, DNV has validated the input parameters used in the investment analysis and the procedures are as following:

¹ Interim Rules on Economic Assessment of Electric Engineering Retrofit Projects, State power company generation and transmission operating department, page 2

Step 1: Assess the sources of the input parameters

All input values used in the financial analysis of this project are taken from the feasibility study report (FSR) that was approved by the Development and Reform Commission of Inner Mongolia Autonomous Region on 27 April 2006. The additional investment from building the transmission line was described in the FSR² but not taken into account in the original financial analysis in the FSR; later, on 27 March 2006 this additional investment of 18 Million RMB required for the construction of a 220kV transmission line was decided by the board³ and this was later confirmed by a contract⁴ on 23 January 2007.

Step 2: Confirm that the values used in the PDD are fully consistent with the FSR

DNV compared the input parameters from the financial analysis included in the PDD with the parameters stated in FSR and was able to confirm that the values applied are consistent with the value stated in the FSR except the total static investment. The total static investment for the proposed project in the PDD is 486.86 million Yuan (this includes 18 million Yuan for the 220 kV transmission line), while the total static investment in the FSR of December 2005 was 468.86 million Yuan.

A feasibility study report (FSR) in China is required to be developed by a third party accredited by the government. An approval letter of the FSR is issued by the government only after it passes the public assessment of the sector experts designated by the government. A feasibility study report can in DNV's opinion thus be regarded as an accurate and trustworthy report coming from a recognized entity once it has the approval letter from the government.

DNV assessed that additional investment for transmission line construction was mentioned in the FSR but not reflected in IRR analysis in the original financial analysis in the FSR of December 2005. On 27 March 2006, the Board of Directors of the project held a meeting and concluded that an additional investment of 18 million Yuan at minimum for the 220 kV transmission line should have to be considered and this sum of money was substantiated by the contract of building 220 kV electricity transmission lines between Longyuan (Bayannaoer) Wind Power Co., Ltd. and Inner Mongolia Power Transmission and Distribution Co., Ltd. of 23 January 2007.

The input values used in the financial analysis can thus be considered information provided by an independent and recognised entity.

Step 3: Assess the period of time between the finalization of the FSR and the investment decision

The FSR was approved by the Development and Reform Commission of Inner Mongolia Autonomous Region on 27 April 2006, and additional investment of 18 million Yuan at minimum for the 220 kV transmission line decided by Board of Directors on 27 March 2006, and thus only three months prior to the decision to proceed with the project activity which was on 28 July 2006 corresponding to construction permission letter⁵. Given this relative short period of time between approval of the FSR, additional investment of 18 million for the 220 kV transmission line before decision to proceed with the project activity, it is unlikely in the context of the project that the

² The feasibility study report of Inner Mongolia Bayannaoer Chuanjingsumu 49.3 MW wind power project in December 2005 and the approval letter by the Development and Reform Commission of Inner Mongolia Autonomous Region on 27 April 2006.

³ The decision document issued in the board meeting held on March 27th, 2006 deciding to invest 220kV Transmission Line construction.

⁴ The contract of building 220 kV electricity transmission lines between Longyuan (Bayannaoer) Wind Power Co., Ltd. and Inner Mongolia Power Transmission and Distribution Co., Ltd. of 23 January 2007.

⁵ Construction permission letter issued by Engineer Company, 28 July 2006.

input values would have materially changed and that it is thus reasonable to assume that the FSR has been the basis of the decision to proceed with the investment in the project.

Step 4: Cross-check the parameters used in the financial analysis with the parameters used by other similar projects

The input parameters used in the financial analyses were compared with the data reported for other similar proposed CDM projects in the NCPG, by comparing investment costs per MW, electricity tariff, percentage of O&M costs relative to total investment costs, etc. By in addition 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.

2 Further clarification is required how the DOE has validated that the tariff will remain constant over the 21 year period.

DNV Response:

a) Over the 21 year period of technical life time, electricity tariff used in financial analysis was assumed to be fixed as 0.5978 Yuan/kWh (including VAT), just like other economic parameters assumed to be fixed at the decision to invest in the proposed project. It was confirmed that the tariff in the Inner Mongolia grid has the trend of lowering down, this is illustrated as follows:

- The proposed project is un-tendering wind farm. Un-tendering wind power project is first proposed under an agreement between the investor and the local government, of which the tariff should be the government-guided tariff which is determined by the government with reference to the tariff of tendering wind power projects, and the un-tendering wind power projects within the same grid should enjoy the same tariff. Through this scheme of tendering for wind power projects which had begun in 2002, China has been gradually reducing the tariff of wind power projects, as is shown by examining the tariff trend in Inner Mongolia grid where the proposed project is located. It is found that the government-guided tariff for wind power projects had been maintained at a level of 0.54-0.5325 Yuan/kWh (including VAT)⁶ from the year 2002 to 2006 and in 2007 this government-guided tariff had decreased to 0.5100 Yuan/kWh (including VAT) .
- For the proposed project, the tariff uses two-phase tariff, namely that within 30000-hour operation (first phase tariff) and after 30000-hour operation (second phase tariff). The above government-guided tariff in Inner Mongolia grid is only for the first phase, the second phase tariff of wind power projects should be the average tariff of the local grid (i.e. Inner Mongolia grid) where thermal power tariff in Inner Mongolia grid is only 0.2509 Yuan/kWh (including VAT)⁷. The proposed project assuming 0.5978 Yuan/kWh (including VAT) is much higher than the government-guided tariff (0.54-0.5325 Yuan/kWh in 2002-2006) and the average tariff of the local grid.

Given above, the adoption of the tariff value in FSR (i.e. 0.5978) as the tariff in the whole operation period for IRR calculation in the PDD is deemed conservative.

⁶ <http://www.86wind.com/info/detail/37-6774.html>

⁷ Notice on adjustment of the tariff in NCPG issued by NDRC in 2006

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

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION AS

A handwritten signature in black ink, reading "Mari Grooss Viddal". The signature is written in a cursive style with a large initial 'M'.

Mari Grooss Viddal
Head of Section, Norway
International Climate Change Services