

UNFCCC Secretariat
Martin-Luther-King-Strasse8
D-53153 Bonn
Germany
2 September 2008
Ref. CRM/UNFCCC/1789

Response regarding the request for review for 1789 Shandong Tuoji Island Windfarm Project

Dear Members of the CDM Executive Board,

We refer to the request for review raised by three Board members concerning the request for registration of project activity 1789 Shandong Tuoji Island Windfarm Project and would like to provide the below response to the issues raised in the requests.

The three (identical) requests are:

“The DOE is requested to explain further how it has validated that the range of variations of the parameters in the sensitivity analysis are reasonable, following the guidance from EB41, Annex 45, paragraph 17.”

We apology the confusion however we did not have a chance to recognize the said note of guidance since the project was requested for registration on 8 April 2008 and PP had submitted registration fee on 9 April 2008, which was before EB41 became effective.

In terms of the guidance on the assessment of investment analysis from EB41, Annex 45, paragraph 17, as a general point of departure variations in the sensitivity analysis should at least cover a range of +10% and -10%, unless this is not deemed appropriated in the context of the specific circumstances, and past trend may be a guide to determine the reasonable range.

However, taking note of:

- a) The project activity reaches the benchmark at the range of +/- 6% variation for three of the variables, making an assessment of greater range superfluous;
- b) The trend that the investment cost and O&M cost are increasing, that the tariff is gradually lowered down, and that the net supplied power in the PDD is optimistically evaluated; and
- c) The assessments show clearly that investment is unlikely to be 6% lower, and that tariff or generation are unlikely to be 6% higher – the likelihoods of a 10% variation are of course even smaller, taking into consideration of the specific trend of the proposed project discussed in b).

Even using the new EB guideline to make assessment, the selected variation of +/- 6% in the PDD is appropriate in the context of the specific circumstances of the proposed project.

Evidence has been provided to confirm the statements presented in Section B.5 of the PDD that it is unrealistic for the investment to be 6% (or more) lower, or the tariff or generation to be 6% (or more) higher, or the annual O&M to be 22% lower (in the case of O&M costs they will need to decrease by 22% for the benchmark to be reached). At the time of preparing this response, the audit report and tariff have been issued by the Chinese organisations responsible, the CPA and NDRC respectively, and they confirm that the actual investment is actually higher than stated in the PDD and in the FSR, while the tariff which has been set is actually lower than that indicated in the PDD and in the FSR. Thus, it can be concluded that the actual IRR is lower than expected in the PDD.

As have been assessed in the PDD, the detailed discussion of investment, O&M cost, Tariff and net supplied power is as follows:

Static Investment

As displayed in the sensitivity analysis in the PDD, if the static investment decreases by 6%, the project would reach the benchmark. For a wind farm project, the cost of turbines, engineering construction and related accessories make up the main investment. As prices of turbines and other related equipment have been increasing in recent years,¹ decreasing of static investment is surely unlikely to happen and static investment of the proposed project would only go up.

Moreover, the audit report issued by the CPA has demonstrated that the actual investment of the proposed project is higher than that estimated in the FSR, increased from 99.85 mRMB as assumed in the PDD and FSR to the real cost of 102.56 mRMB². On this basis, a reduction of 6% or more in the investment costs is not feasible.

O&M Cost

Based on the sensitivity analysis output calculated in the PDD, the project activity will hit benchmark when O&M decreases by 22%. Since the proposed project is located on an island, the O&M cost is expected to be higher than typical O&M cost on land during the operation and maintenance phase. O&M costs are not likely to be decreased by 22% or more, especially under the circumstances that the price of accessories is increasing³.

Tariff:

As demonstrated in the PDD, the tariff assumed in the FSR was high and the on-grid tariffs in Shandong province have been decreasing over the last few years⁴. The tariff approval of the

¹ In the last 2 years, the demands for the turbines and its accessories exceeded the supply. Moreover the price of the raw material such as steel and cooper is increasing, which results in the price of wind turbines and equipments increasing, as demonstrated in *The Development of Wind Power*, published by People's Daily, pls. refer to : <http://energy.people.com.cn/GB/5720709.html>

² The Audit Report of Shandong Tuoji Island Wind Farm dated on June 18 2008 issued by Shandong Tongsheng CPA.

³ As published in the parent company of Windy, the turbine manufacture of the proposed project that the cost of raw materials and salary are increasing, thus, the O&M cost would only go up: <http://www.zjmegroup.cn/news/index.php?func=detail&detailid=252&catalog=010101>.

As demonstrated in the *Development of Wind Power* as well, pls. refer to: <http://energy.people.com.cn/GB/5720709.html>

⁴ Quoted from the wind farm tariff documents in Shandong Province. Reference list with detail information has been provided to DOE.

proposed project was issued by NDRC in 23 July 2008 (Fagaijiage[2008] No.1876)⁵, after the project was submitted for registration on 8 April 2008. In this tariff approval letter, the tariff of the proposed project is set to be 0.61Yuan/kWh (incl. VAT). This is lower than that assumed in the PDD and the FSR, therefore, the original tariff assumption was very conservative. Further, since the tariff is regulated by government, the tariff will be fixed once it is approved by government, and the owner of the project would not be able to make assumption of tariff increase for decision making. Therefore, it is not feasible for the PP to assume that the tariff would increase.

Generation:

As per FSR, the net supplied power is mainly influenced by turbine availability and wind availability. For the proposed project, it is assumed in the PDD and FSR that the turbine availability is maximized. As demonstrated in the FSR, the wind speed quoted for calculating the net supplied power is sourced from the on-site measured wind data (Dongshan station) which is higher than the historical wind measurements data from 1972 to 2002 from the weather station nearby (Changdao weather station), on this basis, the wind speeds applied in PDD is derived from optimistic value. Therefore, neither the turbine availability nor the wind availability is likely to be increased and it can be concluded that the net supplied power will not likely be increased by 6% or more above that assumed in the PDD.

Therefore, there is no plausible scenario for which the calculated IRR of the proposed project activity would reach the benchmark 8% without CDM funding.

Conclusion

In conclusion, taking into account the specific project circumstances, past trends and the actual investment costs and tariff obtained for the project, the range of variations of the parameters selected in the sensitivity analysis is reasonable. Even using the new EB guideline to make assessment, the conclusion remains the same.

It is our sincere hope that the Executive Board will accept these clarifications and explanations.

Yours faithfully



Qian Yiwen
Chief Rep. of CRM China Office
Carbon Resource Management Ltd.(CRM)

⁵ The approval of the on-grid tariff of several wind farms issued by NDRC (Fagaijiage[2008] No.1876), as released on NDRC webpage, pls. refer to: http://www.gov.cn/zwgk/2008-08/14/content_1071728.htm