To: **UNFCCC Secretariat**
Martin-Luther-King-Strasse 8
D-53153 Bonn
Germany

January 12th 2009

Dear Members of the CDM Executive Board,

Please find below our responses to the issues raised by requests for review of the "Project 2153: Inner Mongolia Baotou Bayin Wind Power Project".

Issue: The DOE is requested to clarify how it has validated the appropriateness of the input values used in the investment analysis in line with EB 38, para. 54, including:
a) the update in investment costs;
b) the electricity tariff applied, as the calculations refer to values that are not found in the validation report and it is not clear how CL11 was closed;
c) the assumptions for the escalation in O&M costs; and
d) the decrease in total generation output in the last three years.

Response:

The input values used in the investment analysis in the PDD are sourced from the FSR except the static investment, which is from the Investment Amendment Report. The FSR and Investment Amendment Report, both of which were finished by Xinjiang Wind Power Design Institute, an independent qualified entity, and their approval have been provided to DOE for validation. The appropriateness of the input values used in the investment analysis had been seriously validated by DOE. To response the request for review, we would like to clarify the appropriateness of input values applied in the investment analysis in the following:

a) The FSR of the project was finalized in August 2006. The static investment in FSR is 1541.00 million Yuan. In March2007, the investment was adjusted to be 1590.88 million Yuan on 2007 price level instead of that of 2006 in FSR, reflecting the real situation of the project at the time of when the investment decision was made. The table 1 gives the investment in FSR and Investment Amendment Report, and our clarification why the investment cost of 1590.88 million Yuan is conservative and appropriate.

Table 1: The update in investment cost and the clarification

	FSR	Investment Amendment Report	Clarification
Total investment	1541.	1590.88	The project has not been completed till now, so the actual total investment is to be cross-checked. But the non-current assets in the Balance Sheet of the company at the end of 2008 had reached up to 1597.98116158 million Yuan[1], already higher than the total investment in Investment Amendment Report. Calculated on the total investment in Investment Amendment Report, the investment per kW is only 7915 Yuan, relatively lower, compared to other wind power projects in China. Considering the progress of the project, this investment would be far from enough for the total investment in the project.
1.Equipment	1260.57	1288.15	The project has not been completed till now, so the actual total investment in equipment is to be cross-checked. But considering the contracted price of the major item in equipment cost (i.e. wind turbine), the equipment cost would exceed the expected.
Major item: wind turbines	1028.32	1031.68	The contracted price for wind turbines is 1201.0619 million Yuan, this is a big increase against the expected value in Investment Amendment Report, which would have significant impact on the investment cost of the project. The contract[2] has been provided to DOE for validation. Adoption of the value in Investment Amendment Report is highly conservative.

[1] Balance Sheet of Longyuan (Baotou) Wind Power Co., Ltd

[2] The Equipment Purchasing Agreement for wind turbines

2. Installation	104.34	119.5	The project has not been completed till now, so the actual investment in installation is to be cross-checked. But according to the research report of Central Bank of China[3], the price of the construction material and the costs of the labour had experienced going up during 2007 and 2008 when the major construction of the project was in process, the increase in installation cost is reasonable.
3. Construction	72.43	72.46	Minor changes, the impact on the investment cost of the project is negligible.
4. Other costs	78.63	79.57	Minor changes, the impact on the investment cost of the project is negligible.
5. Basic reserve	25.04	31.19	The value is upon on the investment estimate, furthermore, it only represents less than 2% of the total investment of the project, and the impact of change on the investment cost of the project is negligible.
Conclusion	Given above, the investment in Investment Amendment Report is less estimated, thus conservative and appropriate as input values for investment analysis in PDD. On the sensitivity analysis in PDD, it would have a decrease of 5.20% in total investment on the basis of value of 1590.88 million Yuan to reach the benchmark of 8%, and it is very unlikely to do this.		

[3] Financial Report issued by Central Bank of China

b) The tariff of the proposed project has been set by NDRC[4], which is 0.4291 Yuan/kWh (excluding VAT)[5] within 30000-hour operation and the average tariff in Inner Mongolia power grid after 30000-hour operation. Since the tariff for the first 30000-hour operation period is fixed, the sensitivity analysis regarding to the tariff is carried out on that of after 30000-hour operation. The result shows that the needed tariff after 30000-hour operation to reach the benchmark of 8% is an increase of 31.15% on the value of that applied in the FSR. The tariff after 30000-hour operation applied in FSR is 0.35 Yuan/kWh including VAT or 0.3226 Yuan/kWh excluding VAT[6]. That means the needed tariff after 30000-hour operation should reach up to 0.4590 Yuan/kWh including VAT or 0.4231 Yuan/kWh excluding VAT. But Inner Mongolia power grid is dominated by the thermal power plants, which the thermal power generation accounts for more than 98% of the total power generation[7], the average tariff in the grid should also be dominated by the thermal power tariff. The benchmark thermal power tariff in Inner Mongolia is only 0.2509 Yuan/kWh (including VAT)[8] in 2006 and 0.2599 Yuan/kWh (including VAT)[9] in 2008, strictly regulated by the Chinese government, calculated at this rate in change (only increase 0.009 Yuan/kWh in two years), the benchmark tariff 20 years later can only reach 0.3569 Yuan/kWh[10], so it is very unlikely for the actual tariff after 30000-hour operation for the project to reach up to 0.4590 Yuan/kWh, at a rate of 82.9% on 0.2509 Yuan/kWh.

c) We would like to provide the detailed operation costs as requested, composed of five kinds of costs - maintenance costs, annual salaries for the employees, insurance premium of fixed assets, material fee and other costs, which were consolidated in the spreadsheet. The table 2 shows that the operational costs are the sum of each kind of costs and the same as that in the cash flow table in the spreadsheet attached with the submitted PDD, and the maintenance costs cover the majority of the O & M costs. The rate of maintenance is sourced from FSR (0.2% for the 2nd and 3rd years, 0.3% for the 4th year, 0.5% for the 5th year, 1.0% for the 6th to 10th years, 1.5% for the 11th to 15th years, 2% for the 16th to 20th years and 2.5% for the last 5 years). With the operation of the wind turbine, the failure rate of the wind turbine will be increased, so it is common practice that the maintenance rate will be increased with the increase of the year. Consequently, with the increase in the rate of maintenance, the maintenance costs then the O & M costs have an escalation over the operation period. The average O & M costs is calculated as 36.555 million Yuan, at a percentage of 2.30% against the total static

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[4] The Letter of Approval of Inner Mongolia Baotou Bayin Wind Power Project issued by National Development and Reform Commission (NDRC) , FAGAINENGYUAN (2007) No. 207

[5] The tariff including VAT is 0.4656 Yuan/kWh, as calculated as following:

0.4291×(1+VAT)=0.4656 Yuan/kWh, where VAT = 8.5% for wind power projects in China.

[6] 0.3226×(1+VAT)=0.3226×(1+8.5%)=0.35 Yuan/kWh

[7] China Electric Power Yearbook 2007

[8] Notice on adjustment of the tariff in NCPG issued by NDRC in 2006

[9] Notice on adjustment of the tariff in NCPG issued by NDRC in 2008

[10] Calculated as following: the increase rate in 2 years is:
(0.2599-0.2509)/0.2509=0.009/0.2509=0.03587

$0.2509\times(1+0.03587)^{10}=0.3569$ Yuan/kWh

investment, relatively lower, compared to other wind power projects in China. Furthermore, on the sensitivity analysis, the needed annual O & M costs to reach 8% benchmark should be a 30.88% decrease. On the one hand, the basic annual O & M cost assumption is from the FSR, in which the maintenance rate and other assumptions have been approved by NDRC; on the other hand, along with a rapid economic development, China would have an inflation rate of 3-4% in future 20 years[11]. Under such circumstances, a significant 30.88% decrease in O & M costs is not realistic and obviously the project IRR is not likely to reach the 8% benchmark.

Table 2: The O & M costs of the proposed project (Unit: 10000 Yuan RMB)

Years	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Maintenance costs	95	223	477	795	1590	1590	1590	1590	1590
Annual salaries	163	226	226	226	226	226	226	226	226
Insurance premium	167	390	557	557	557	557	557	557	557
Material fee	0	0	100	100	100	100	100	100	100
Other costs	0	200	450	450	450	450	450	450	450
O & M costs	**425**	**1040**	**1810**	**2128**	**2923**	**2923**	**2923**	**2923**	**2923**

Years	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
Maintenance costs	2386	2386	2386	2386	2386	3181	3181	3181	3181
Annual salaries	226	226	226	226	226	226	226	226	226
Insurance premium	557	557	557	557	557	557	557	557	557
Material fee	100	100	100	100	100	100	100	100	100
Other costs	450	450	450	450	450	450	450	450	450
O & M costs	**3719**	**3719**	**3719**	**3719**	**3719**	**4514**	**4514**	**4514**	**4514**

Years	**20**	**21**	**22**	**23**	**24**	**25**
Maintenance costs	3181	3977	3977	3977	3977	3977
Annual salaries	226	226	226	226	226	226
Insurance premium	557	557	557	557	557	557
Material fee	100	100	100	100	100	100
Other costs	450	450	450	450	450	450
O & M costs	**4514**	**5310**	**5310**	**5310**	**5310**	**5310**

[11] The forecast of interest rate of RMB in future 20 years

d) The lifetime of the wind turbines is 20 years, as specified in the Equipment Purchasing Agreement[12] dated on 10 April 2007, but the proposed project should have a longer operation period, the reliability of the wind turbines beyond the technical lifetime should be suspected. Meanwhile, as shown in FSR, the total generation output should reduce by half in the last three years due to the unreliability of the wind turbines[13]. In this regard, it is reasonable that the total generation output in the last three years have a decrease from 465,920MWh to 232,960MWh.

Best regards,

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[12] The equipment purchasing agreement of the project

[13] Basic data from FSR of the project, P14-3