**Response to the request for review for the CDM project activity**

1090 Shandong Changdao 27.2 MW Wind Power Project

To: Mr. Hans Jurgen Stehr, Chairman
CDM Executive Board to Kyoto Protocol

From: Huaneng Zhongdian Changdao Wind Power Co. Ltd., the project owner/participant

Re: 1090 Shangdong Changdao 27.2 MW Wind Power Project

Date: 04 October 2007

Dear Mr. Chairman,

As the *1090 Shandong Changdao 27.2 MW Wind Power Project* was requested for review by the CDM Executive Board on the 26 September 2007, we therefore would like to take this opportunity to answer the questions by clarifying the issues and providing additional information for your considerations and final acceptance. Our answer to the questions is provided as follows:

## Issue 1:

Version 3 of the "Tool for the demonstration and assessment of additionality" should be correctly applied.

***Our clarifications:***

We would like to accept the advices made by your EB reviewer, and in the revised PDD, the additionality of the Project is demonstrated and assessed by using the *Tool for the Demonstration and Assessment of Additionality* (Version 3).

## Issue 2:

The starting date of the project activity should be revised in the PDD to the earliest of the dates at which the implementation or construction or real action of the project activity began. Further, in accordance with section B5 of the PDD Guidelines, *"If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity."*

***Our clarifications:***

In the PDD, we revised the starting date of the project activity with the 11July 2005 as date of completion of FSR for the Project, to replace the date the 31 August 2006 initially stated in the PDD serving as the starting date of project fully operational.

| Item | Date | Data source |
|---|---|---|
| Starting date of project activities | 11 July 2005 | the date of completion of Feasibility Study Report for the proposed project |
| Starting date of Project fully operational | 31 August 2006 | Evidence of starting date of project fully |

| | | |
|---|---|---|
| | | commissioning |
| Starting date of Project crediting period | The date of final completion of EB registration (the 1 October 2007 selected in the PDD was only indicative for CERs calculations) | |

For this proposed project, the CDM revenue was fully considered by the project owner in the early development stages due to the apparent financial obstacles the Project faced. As showed in the Feasibility Study Report (as dated at July 2005), as well as the government approval (as dated as 19 July 2005)**,** the proposed project was planned as a CDM project for project implementation and operation. And it is very much expected that with an additional income to be generated from the CDM activities, the Project is able to achieve a sustainable investment objective (Both Feasibility Study Report and the Government Approval as the evidence were provided to the DOE).

## Issue 3:

The PP/DOE shall further substantiate the financial analysis and the projection that the project IRR amounts to an IRR of 6.59%, which demonstrates that the project is less financially attractive than a baseline scenario defined by the benchmark: as with an increase in the tariff by 10% the project IRR will be higher than the benchmark IRR, as shown by the sensitivity analysis. There is no substantiation of how unlikely the tariff increase by 10% might be.

***Our clarifications:***

As stated in the financial analysis of the PDD, the FIRR was calculated about 6.59%, which demonstrates that the project is less financially attractive than a baseline scenario defined by the benchmark FIRR of 8%. We very much agreed with the EB reviewer that with an assumption of increasing in the tariff by 10%, the project IRR will be higher than the benchmark IRR as shown by the sensitivity analysis.

However, the assumption of 10% increasing in tariff of wind power will most unlikely to happen because that the tariff of this project has been fixed, by a Letter of Approval endorsed by Shandong Provincial Pricing Bureau, for about one year starting from the date of the project fully operational. It stated in the Letter of Approval, this fixed tariff will be adjusted in accordance with relevant national policy after the expiry of the tariff. A copy of the official Letter of Approval endorsed by Shandong province price bureau for the tariff of the proposed project was provided to DOE.

In addition, the assumption of 10% increasing in tariff of wind power will most unlikely to happen in the RPC power market in the foreseeable future giving the facts of that:

1. **China will continue to use the scheme of tendering for the wind power pricing.** Just recently, the 4th of September 2007, in a press conference held by the State Council Information Office, Chen Deming, vice minister of National Development and Reform Commission, stated that China will continue to use the scheme of tendering for the wind power pricing, because "only in this way can the wind power generation prices to gradually lowering down." (for detailed information please refer to the news report at http://finance.sina.com.cn/china/hgjj/20070905/11043948808.shtml)

2. **The tendering tariff of the wind power project is remaining at the lower end.** The average tendering tariff of the wind projects currently existing in the PRC power market is about RMB0.52/kwh[1].

3. **China will not increase the tariff of wind power at present.** 19 May 2007，Li Junfeng, deputy director of Energy Research Institute of China's National Development and Reform Commission participated in the "International Summits for Alternative Energy and the Power" said China's wind power tariff will remain stable for a period of time unchanged, the State does not plan to the introduction of a more active policy to support the development of wind power[2].

[1] *Data source: Wind Power Projects and the Issue of Price—by Shi Pengfei, a Chinese national wind expert, and the document (in ppt) is provided to the DOE.*
[2] *Data source: China will not Increase the Tariff of Wind Power at Present.*

Base on above analysis, the assumption of 10% increasing of the wind power tariff, will not be a case in the reality of the PRC power market. And we would like to believe that with additional information provided at above, the conclusion draw from the financial sensitive analysis in the PDD will be strongly supported and therefore be acceptable to your executive board.

## Issue 4:

The technical and investment barriers analysis is weak and should be further substantiated.

***Our clarifications:***

After carefully review the comments made by your EB reviewer as well as the *Tool for the Demonstration and Assessment of Additionality (Version 03),* though the comment made by your EB reviewer is likely to be acceptable, we would like to remain the Sept 3 of the Barrier Analysis unchanged, and our clarification and explanation with this regard is as follows:

1. In the PDD, the additionality of the proposed project is demonstrate and assessed in the Sept 2, Investment Analysis. With additional information provided (for more detailed information please refer to the Sub-step 2d, Sensitivity analysis, in the Section B5 of the PDD) , a conclusion is made from the Sept 2 of Investment Analysis —— the proposed project is unlikely to be financially attractive. Hence a clear additionality of the proposed project is assessed and demonstrated by the investment analysis as described in the Step 2;

2. As the result, in this PDD, Step 3 of *Barrier Analysis* (as an optional) is used as a complementary statement to further support the additionality of the proposed project activity by identify some of real barriers the project faces. Though the comment made by your EB reviewer is likely to be acceptable, that is *the technical and investment barriers analysis in the Step 3 should e further substantiated*, we would like to remain the Sept 3 of the Barrier Analysis unchanged, this is because of the Investment Analysis of the Step 2 is already demonstrated the apparent additionality of the project.

3. We However would like to take this opportunity to emphasize the Step 3 a bit further in details as follows:

    1) ***Wind investment project has much higher per kw investment cost compare with the conventional coal-fired power plant.*** At present, the 600KW model of wind turbine are most popular in the market of China[3], and it however still has to relay on the core technology traded from abroad, resulting a higher per kW investment cost and lower IRR than the benchmark IRR of the total investment in Chinese Power Industries as show in the PDD the Section B for the investment analysis.

    2) ***There no preferential financing policies to support the wind project investment project in China.*** Considering the loan application, the wind investment project neither has preferential interest rates to apply, nor giving the reasonable loan repayment period as same as the conventional power investment projects, yet it has to compete with the conventional power investment projects as well as other fixed asset investment projects in the PRC market for the bank's approval; and

    3) ***The proposed project, with a higher per kW investment cost, had faced the obstacles in its investment finance.*** The investment cost of the proposed project with 850 kW turbines is about 9,849 RMB/kW, resulting a set of less attractive financial indicators of the investment when it compares with the benchmark IRR of the total investment in Chinese power investment market. As a result, project owner was unable to achieve the 20/80 of equity/debt

*http://politics.people.com.cn/GB/5752740.html*

[3] *Data source: China's wind power equipment manufacturing technology and the development recommendations* http://www.xsinfo.gov.cn/ReadNews.asp?NewsID=4234

ratio that normally acceptable by the commercial bank to finance fixed assets investment projects (*Notification by the State Council on Trying out Capital Mechanism for Fixed Assets Investment Projects* (Guofa [1996]35)[4], but only achieved the 40/60 of the equity/debt finance ratio in stead.

4) ***The particular technology used by the proposed project activity is not available in the relevant region.*** At present, China has already realized the localization and commercialization for the 600KW wind turbine technology[5]; the 850 kW turbines (G52-850) used by the proposed project made by the Spanish manufacture, Gamesa Eolica, and the maintenance are normally performed by the equipment supplier which are often not readily available in the China's market. In addition, the proposed project is located in the island surrounded by the sea. The special geographic conditions make this project faced several serious barriers during its operation period, which include: corrosion caused by high salt atmosphere environment and adverse climate conditions. This results a frequent maintenance, as a consequence, which greatly increases the maintenance cost of the proposed project. Some other disadvantages will also include lack of infrastructure for implementation and logistics for maintenance of the technology as well as the proposed project might face the risk of downtime caused by shortage of spare parts of the equipments.

It is believed that using the Step 3 of barrier analysis as the supplementary statement to the Step 2 of investment analysis is allowable by the Version 3 of the "Tool for the demonstration and assessment of additionality". We therefore would like to hope that with the clarification and additional information provided above, our intention to remain our current barrier analysis level of the Sept 3 in the PDD unchanged will be acceptable by your executive board.

## Issue 5:

The DOE shall explain under which contractual arrangements the personnel of DNV Beijing were participating in the assessment.

***Our clarifications:***

We would like to invite our DOE to answer this question arising by your EB reviewer separately.

With the above clarification, explanation and additional information, we sincerely hope that the CDM Executive Board will be satisfied with the proposed revised PDD and further approve our request for registration of the proposed project activity shortly.

Sincerely yours

Huaneng Zhongdian Changdao Wind Power Co. Ltd.

[4] *http://tzs.ndrc.gov.cn/xkxmql/xkxmyj/t20060802_78919.htm*

[5] *Data source: China's wind power equipment manufacturing technology and the development recommendations http://www.xsinfo.gov.cn/ReadNews.asp?NewsID=4234*