Mr. Rajesh Kumar Sethi
Chair, CDM Executive Board
UNFCCC Secretariat
CDMinfo@unfccc.int

26 October 2008

Re: Request for Review "Roncheng Wind Power Project, 48.75MW" (Ref. No. 1755)

Dear Mr Sethi,

Please find below our response to the request for review for the above mentioned project, no. 1755.

We sincerely hope that the response below answers satisfactorily all of the issues raised but if you have any further questions or need further clarification, please do not hesitate to contact us. We hope that with this response, all issues have been addressed and the Board will approve this project for registration.

Yours sincerely,

1. Further clarification is required on how the DOE has validated the sensitivity analysis.

On page 14 of the PDD, Table 4 (Sensitivity Analysis of the Project IRR) shows that the project IRR will rise above the benchmark when the total capital expenditure ("Capex" in the table) is reduced by 10%. This scenario is not plausible because:

According to the Feasibility Study Report for the proposed project, 94% of the total investment is used for purchase and installation of project equipment and construction of the grid connection system[1]. There is a general trend in China at the present time for increasing investment costs as a result of rising prices for fuel, raw materials and power: in 2003, 2004, 2005, and 2006, the national general growth rate of purchasing prices of raw materials, fuels and power were 4.8%, 11.4%, 8.3% and 6% respectively. Also in 2003, 2004, 2005 and 2006 the national total price indices of investment in fixed assets were 2.2% and 5.6%, and 1.6%, 1.3% respectively[2].

[1] FSR of Guohua Roncheng Wind Power Generation Engineering, Shanghai Electric Power Design Institute Co., Ltd.
[2] China Statistic Year Book,2004, 2005,2006,2007

In Roncheng city, the location of the project, investment costs are also rising in line with these national trends: in 2005, 2006, and 2007 the local general growth rate of purchasing prices of raw materials, fuels and power were 11.15%, 7.04% and 4.48% respectively[3],[4].

Finally, the cost estimation in the Feasibility Study Report does not include some items needed by the project (for example lubricant) and can therefore be considered conservative.

This demonstrates that a fall in capital expenditure of 10% is extremely unlikely.

On page 14 of the PDD, Table 4 "Sensitivity Analysis of the Project IRR" shows that the IRR will rise above the benchmark when the power output is increased by 10%. However, this situation is not plausible because:

According to the FSR for the proposed project issued by Shanghai Electric Power Design Institute Co., Ltd., the capacity factor for the wind farm is just 20.7% (i.e. operation hours of 1813 each year at full rated capacity), based on an average annual wind speed of 6.25m/s at the hub height of 74.5m. This data is based on Cheng Shan Tou meteorological station records which show that the annual and monthly average wind velocity at the project site from January 1973 until February 2006 is 6.0m/s.

To further support this, additional evidence has been presented to the DOE from the China Meteorological Data Sharing Service System[5]. This corroborates the evidence in the FSR for the project. Therefore, given the evidence for the windspeed at the site over the last thirty years, it is clear the average annual wind speed at the project site has remained stable at approximately the speed predicted in the FSR.

It is extremely unlikely that .the power output could increase by 10%.

A spreadsheet needs to be provided for all calculations related to the investment analysis.

Please see the attached spreadsheet with all calculations related to the investment analysis. Note: the value of the IRR has changed slightly in this spreadsheet to that in the PDD when the different components of the spreadsheet and calculations were linked. This is purely due to the new calculations; the data used is the same as in the PDD.

2. Further clarification is required on how the DOE has validated the common practice analysis, in particular, exclusion of wind farms: (a) using domestic technology; and b) built before 2004.

Roncheng wind project in Shandong province is within the territory of North China Power Grid (NCPG) in China. For Roncheng wind project, windfarm site is in limited

[3] http://old.chinacity.org.cn/cfhnews/20061124/618.html
[4] Weihai newspaper 28 Jan 2006 second version
[5] http://cdc.cma.gov.cn/shishi/climate.jsp?stprovid=shandong

area alongside coastline. In this way, unit larger installed capacity wind turbines with advance technology should be installed. Compared to other windfarms, wind energy density 290.1W/m^2 in project site can be regarded as below average windfarm[6]. Therefore, international technology 1.0-1.5MW wind turbine should be chosen.

(a) Using domestic technology;

There are very few wind farms with domestic technology adopted turbines with unit capacity larger than 1MW as well as variable speed and pitch controlled technology before 2006. Thus, most wind farm using domestic wind turbine can be excluded since they are clearly different from the proposed project in technology aspect. There remain some wind farms that adopted similar unit capacity and technology to the proposed project were equipped with domestic wind turbines. Those wind farms are list in below table 1, which is abstracted from Table 4 of PDD.

b) Built before 2004

Similar to (a), most wind farms built before 2004 used smaller unit capacity and more basic technology. They have essential distinctions to the proposed project activity, thus were excluded. The remained wind farms that adopted similar unit capacity and technology to the proposed project built before 2004 are also list in below table 1, which is abstracted from table 5 of PDD.

Besides the particular cases described in (a) and (b), all other wind farms with similar unit capacity and technology to the proposed project are list in table 1 as well. It can be shown that all the wind farms listed in table 1 have been registered or are applying for carbon financing, except Jimo Fengshan project in Shandong province. The Jimo Fengshan project used Nordex 1.3MW wind turbine and operated without CDM revenue. However, the IRR of Jimo Fengshan project is 10% which is higher than 8% benchmark[7]. Thus, the Jimo Fengshan project is more financial attractive than Roncheng project.

It can be concluded that the proposed Roncheng project is not common practice.

Table 1

Name of project	*Year of construction*	*Unit capacity*	*Carbon financing?*	*Reference*
Inner Mongolia Sonid Youqi Zhurihe	2006	1500kw Sinovel	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/Validation/DB/CJNKHWTUCBH3BS7HK46A8SC7UHXMMH/view.html
Inner Mongolia Qahar Youyi Zhongqi Dadonggou	2006	1500kw Sinovel	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/TUEV-SUED1166704457.57
Inner Mongolia Xin Barag Youqi	2006	1500kw Sinovel	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/JCI1173174854.8/view

[6] GB/T18710-2002

[7] http://www.stport.net/News/File_News/0520060227092108.htm

Alatanemole Shandong Roncheng Dongchudao	2006	1500kw Sinovel	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/DNV-CUK1174370580.2/view
Shandong Roncheng Gangxizhen	2006	1500kw Sinovel	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/DNV-CUK1179309260.87/view
Hebei Shangyi Manjing	2005	1500kw GE Wind	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/DNV-CUK1167911701.87/view
Hebei Zhangbei Baibuluo	2005	1500kw GE Wind	Applying for carbon finance through the CDM	http://cdm.unfccc.int/UserManagement/FileStorage/5X09Y9XLJO28P4KEA4GNSWG275CF5T
Hebei Zhangbei Baibuluo	2006	1500kw GE Shenyang	Applying for carbon finance through the CDM	http://www.dnv.com/focus/climate_change/Upload/Zhangbei%20Mijiagou%20Winfarm%20PDDv1%207%20for%20DNV%20_2_.pdf
Hebei Zhangbei Baibuluo	2006	1500kw CASC-Acciona	Applying for carbon finance through the CDM	http://www.dnv.com/focus/climate_change/Upload/Zhangbei%20Mijiagou%20Winfarm%20PDDv1%207%20for%20DNV%20_2_.pdf
Inner Mongolia Huitengxile	2004	1500kw GE Wind	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/TUEV-SUED1166704457.57/view
Inner Mongolia Saihanba	2005	1000kw Vestas	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/DNV-CUK1173680185.45/view
Inner Mongolia Zhouzi Bayinxile	2006	1250kw Suzlon	Applying for carbon finance through the CDM	http://cdm.unfccc.int/Projects/DB/TUEV-SUED1188906688.93/view
Shandong Jimo Fengshan	2003	1300kw Nordex	Non-CDM project	http://www.stport.net/News/File_News/05200602 27092108.htm