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To: **UNFCCC Secretariat**
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Dear Members of the CDM Executive Board,

Please find below our responses to the issues raised by requests for review of the "Project 1177: Fujian Pingtan Changjiang'ao 100 MW Wind Power Project".

1. **Issue 1: The PP shall further demonstrate the additionality of the project activity.**

We would like to demonstrate further the additionality of the project activity through the following steps:

1) As identified in the PDD, there is only one realistic and credible alternative to the proposed project, which can provide the same output or services and is compliant with mandatory laws and regulations as required by the methodology. This alternative is no construction of the project and the East China Power Grid provides the electricity output.
2) As per answer to request 2 below, the investment analysis demonstrates that the proposed project not undertaken as a CDM project is financially unattractive. The sensitivity analyses with investment, O&M, tariff and PLF confirm the financial additionality of the proposed project.
3) As per answer to request 3 below, there are some barriers that would prevent the implementation of proposed project if the project activity was not registered as a CDM activity, and as the answer to the request 3 below. These barriers would not prevent the implementation of the identified alternative.

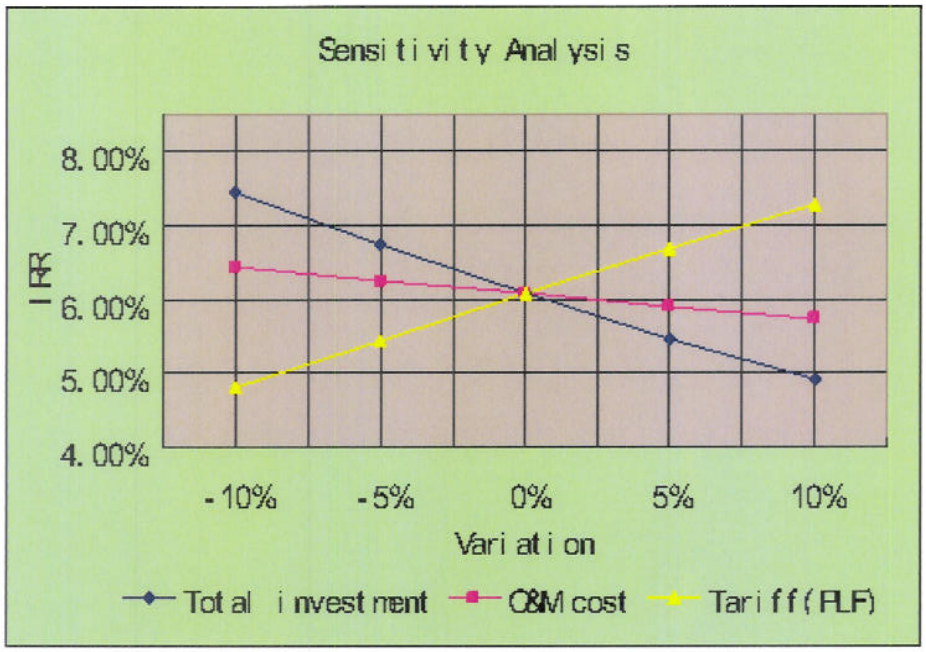
4) The common practice analysis in the PDD of the proposed project has enhanced that out of the ten wind farms with installed capacity above 10MW actually under construction or operation in the East China Power Grid, three of them benefit from a favourable electricity tariff. This was possible because they were demonstration projects. However, since the reform of the Chinese power markets which started in 2002, new projects cannot benefit anymore from such favourable tariffs. As a consequence, the seven other wind farms currently under operation or construction in the East China Power Grid do not benefit from such favourable tariff, but are registered or seek registration as CDM projects. Similarly, the proposed project do not benefit from a favourable tariff, international financial assistance or soft loan. Thus, existing similar projects do not contradict the claim that the proposed project activity is financially unattractive without the CDM.
To conclude, the proposed project is additional.

2. **Issue 2.1: The economic and financial analysis is weak, and the following issues should be clarified:**

   - **It is not clear from the PDD or validation report if the system PLF could be higher or lower than 30% and its effect in the project financing. The sensitivity analysis uses only Investment/MW, O&M and tariff. Information about the PLF is critical because it could generate uncertainty in this project.**

Please find below the sensitivity analysis with a plus and minus 10% around the 30% PLF actually expected. The tariff negotiated ex ante is based on the 30% PLF assumption. It shows the sensitivity around the PLF is similar to the sensitivity around the tariff (both impact the turnover the same way).

Figure 1: Sensitivity analysis of the project



According to the Chinese Renewable Energy Law enacted on January 1st 2006, wind power generation should be purchased fully by the grid. Therefore, the PLF reflects the annual generation output of the proposed project, which depends on the average wind speed at the

project site for a specific wind turbine. The needed PLF to reach the 8% benchmark is 17% higher than the basic 30% assumption. This is extremely unlikely considering the following fact that the average wind speed at the project site has been decreasing over the past 49 years (see Table 1).

Table 1: The Average Wind speed provided by local meteorological station (m/s) – Altitude (10m)

Year	Average Wind Speed	Year	Average Wind Speed	Year	Average Wind Speed
1954	7.8	1970	6.2	1986	5.3
1955	7.5	1971	7.1	1987	4.9
1956	8.2	1972	6.0	1988	5.5
1957	7.8	1973	6.4	1989	5.1
1958	7.5	1974	6.6	1990	5.0
1959	7.8	1975	5.8	1991	5.0
1960	7.6	1976	6.5	1992	4.9
1961	7.8	1977	6.8	1993	5.1
1962	7.4	1978	6.5	1994	4.7
1963	6.3	1979	6.0	1995	4.6
1964	7.4	1980	5.8	1996	4.8
1965	6.9	1981	5.2	1997	3.9
1966	6.4	1982	5.0	1998	4.3
1967	6.5	1983	5.5	1999	4.4
1968	6.1	1984	5.6	2000	4.2
1969	6.2	1985	5.3	2001	3.9
				2002	3.5

Data: Pingtan Meteorological Station (the Feasibility Study Report of the proposed project p.15)

- **Issue 2.2: The financial analysis is using a 10 years span and 5% of residual life in the calculations. On the other hand, the operational life of the equipment is 21 years and the residual life could be lower or should be based on fair value principle. This point changes the flows and the IRR/CERs effect and should be reviewed.**

The economic life of the project used for the calculation of the IRR is 21 years. This is entirely consistent with the fixed asset depreciation period of 15 years (95% of which are depreciable → 5% residual value of fixed asset), and the intangible asset amortization period of 10 years, which are just used to calculate the income tax cash-flows in the financial analysis.

1) For the residual value of fixed asset, the value of 5% is used for most wind power investments in China (for example, the CDM project 1209 "Wuerguli 30 MW Wind Power Project"). Some wind power projects may adopt a lower value, but this would have little impact on the financial analysis results: an hypothetical 0% value would only increase IRR from 6.08% to 6.23%.

2) Would the intangible asset amortization period be 21 years instead of 10 years, the IRR would only decrease from 6.08% to 6.06%: the impact is negligible. Nevertheless, if the fixed asset depreciation period was 21 years instead of 15 years, the IRR would have decreased more: from 6.08% to 5.88%. This is due to the fact that fixed and intangible assets represent respectively 97% and 3% of the upfront investment.

However, these fiscal periods and residual values used in the investment analysis have been determined in accordance with the Chinese Taxation Laws since the Feasibility Study Report, and may not be modified. As already said, they are independent from the project economic life taken into account which is indeed 21 years. This additional sensitivity analysis confirms the financial additionality of the proposed project.

- **Issue 2.3: The validation of additionality is complemented with comments about the importance of maintenance due to corrosion, training, location of equipment in an inland, and others. However, there is no opening of the operational costs, all the data is consolidated and it is not possible to confirm the impact of all this. The PP/DOE shall provide the information to substantiate further the additionality of the project in clear and transparent manner, including spreadsheet with open information to be able to check the information.**

The actual performance and liability of the wind turbines in such an island have not been proven; some of maintenance costs are unpredictable, that may lay risks for the proposed project, so the project participants determined to develop CDM, and to assist the project in removing the barriers, including corrosion and potential high maintenance costs, and could consequently generate more electricity and GHG emission reductions in return. The project participants would like to provide the detailed operation costs as requested, composed of four kinds of costs - maintenance costs, annual salaries for the employees, insurance premium of fixed assets and other costs, which were consolidated in the PDD and spreadsheet. The following 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 Annex 5 of the PDD for the proposed project.

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

Years	2	3	4	5	6	7	8	9	10	11
Maintenance costs	198.29	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31
Annual salaries	59.63	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25
Insurance premium	207.23	194.04	180.85	167.66	154.47	141.28	128.08	114.89	101.70	88.51
Other costs	109.30	546.52	546.52	546.52	546.52	546.52	546.52	546.52	546.52	546.52
O & M costs	**574.45**	**3359.12**	**3345.93**	**3332.74**	**3319.55**	**3306.36**	**3293.17**	**3279.97**	**3266.78**	**3253.59**

Years	12	13	14	15	16	17	18	19	20	21	22
Maintenance costs	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31	2499.31
Annual salaries	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25	119.25
Insurance premium	75.32	62.13	48.94	35.75	22.56	10.41	10.41	10.41	10.41	10.41	10.41
Other costs	546.52	546.52	546.52	546.52	546.52	546.52	546.52	546.52	546.52	546.52	437.22
O & M costs	**3240.40**	**3227.21**	**3214.02**	**3200.83**	**3187.64**	**3175.49**	**3175.49**	**3175.49**	**3175.49**	**3175.49**	**3066.19**

3. **Issue 3: The technical and investment barriers analysis is weak and should be further substantiated. It is not clear whether the thermal power plant**

alternative is technically feasible in "an island with plain field, which has few rivers and a lower sea level between 4m and 52m". Is there a provision of fossil fuel for the thermal power plant? The legal and regulatory framework prohibits a thermal power plant because it does not comply with the national regulation for controlling small scale thermal power plant. Hence, the wind power project would not be additional if the other alternative is not allowed.

As mentioned in the request, the small scale thermal power plant is not a realistic and credible alternative, which is the reason why the project participants proposed the following alternative: no construction of the project and the East China Power Grid (ECPG) provides the electricity output. This alternative faces with no investment and technological barriers and complies with mandatory laws and regulations as required by the methodology, which can be demonstrated by the evidence that the installed capacities of the large scale thermal power plants and annual electricity output of the East China Power Grid has been increasing significantly for many years (China Electric Power Yearbook 2003-2006, see Table3). Since the area is within the coverage of the East China Power Grid, the construction of a wind power project is not the only alternative because the same output of the electricity to be generated by the proposed project can be provided by the Grid; therefore, the proposed project is additional.

Table3 Installed capacity and annual electricity output of thermal plants of ECPG

Years	Annual electricity output (MWh)	Installed capacity (MW)	Capacity addition (MW)
2002	304,652,277	61,120	
2003	360,848,554	65,036	3,916
2004	414,795,263	79,424	14,388
2005	477,317,698	104,077	24,653

4. **Issue 4: Version 3 of the "Tool for the demonstration and assessment of additionality" should be applied.**

The project participants have applied as closely as possible the version 3 of the "Tool for the demonstration and assessment of additionality" in paragraph B.5 of the PDD (pages 9-17).

5. **Clarification is sought regarding why electricity is not measured on hourly basis as required by the methodology.**

As required, metering equipments for electricity output have been installed for the project and will record the electricity from and to the grid every 15 minutes (equipment type: ABB-AINRTAL, accuracy: 0.2s). Therefore, the project participants will measure the electricity on hourly basis as required by the methodology.

Best regards,

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