

## RESPONSE TO THE REVIEW REQUEST

Bureau Veritas Certification (formerly BVQI) had performed the validation of the CDM Project 2152- "Heilongjiang Wuerguli Wind Power Project". Subsequently, there were two requests for review.

Our responses to the review requests raised are given below:

### ***Issue 1 for request for review***

*The DOE is requested to confirm the appropriateness of the electricity tariff assumed in the PDD, in comparison with previous historical trend based on tariff notifications in the same region, and whether such information was available at the time the FSR was prepared, in particular, as the other similar wind power projects in the Heilongjiang province have received a higher price than that of the project activity. Where previous tariffs are higher than the tariff applicable to this project activity the DOE should explain the reasons for this and provide an opinion as to whether the net return to the investor has been reduced as a result of the reduction in tariffs, or whether the net return has been unaffected as a result of other changes such as investment costs.*

### ***Bureau Veritas Certification's response:***

During the validation process, BVC had studied the relevant policies and local investment environment in wind power sector and confirmed the truth as below:

- In 2002, a reform for electric power system in China, *Electric Power System Reform* was issued by China State Council, which broke the state-monopoly of the electric supply system, separated electric power generation and electric grid operation into sectors, so that promoted market competition. From then on, the investment environment of power market has been changed significantly from the long-term system of planned economy.
- In 2006, China's government issued the *Renewable Energy Law* /1/ and *Tentative Management Measures for Price and Sharing of Expenses for Electricity Generation from Renewable Energy* (Document No. Fa Gai Jia Ge [2006]7) /2/. From then on, the wind power projects have been increasing rapidly in China.

Given above, to analyze the historical trend on tariff for wind power projects in Heilongjiang province, BVC summarizes tariffs of wind power projects in Heilongjiang Province based on publicly available tariff notifications in following table:



No	Project	Tariff (RMB/kWh, Incl. VAT)	Document No.	Tariff determined time
1	Heilongjiang Mulan Wind Power Project	0.78	Hei Jia Ge Zi [2004]233	2004
2	Heilongjiang Fujin Wind Power Project	0.79	Hei Jia Ge Zi [2004]226	2004
3	Yichun Daqingshan Wind Power Project	0.72	Hei Jia Ge Zi [2005]270	2005
4	Heilongjiang Huafu Muling Wind Farm	0.72	Hei Jia Ge Zi [2005]267	2005
5	Yichun Shimaodingzi Wind Power Project	0.72	Hei Jia Ge Zi [2005]270	2005
6	Yichun Erduoyan Wind Power Project	0.72	Hei Jia Ge Zi [2005]270	2005
7	Heilongjiang Muling Daimagou Wind farm Project	0.61	Hei Jia Ge Zi [2007]194	9/2007
8	Heilongjiang Muling Ganmianshi Wind farm Project	0.61	Hei Jia Ge Zi [2007]194	9/2007
9	Heilongjiang Wuerguli Wind Power Project	0.61	Fa Gai Jia ge [2007]3303	12/2007
10	Yichun Xiaochengshan Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
11	Heilongjiang Yilan Maanshan Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
12	Heilongjiang Fujin Phase II 18MW Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
13	Heilongjiang Yilan Hezuolinchang Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
14	Guohua Qiqihaer Fuyu 1 st Stage Wind Farm Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
15	Heilongjiang Huanan Hengdaishan East Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
16	Heilongjiang Huanan Hengdaishan West Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
17	Heilongjiang Yilan Hezuolinchang Phase II Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
18	Heilongjiang Dajiazishan 49.5MW Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
19	Heilongjiang Beiantun 49.5MW	0.61	Fa Gai Jia ge [2008]	07/2008

	Wind Power Project		1876	
20	Heilongjiang Fujin 48MW Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
21	Heilongjiang Daqing Ruihao Wind Farm Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
22	Heilongjiang Fuyuan Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
23	Heilongjiang Huanan Hengdaishan East (II) Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
24	Heilongjiang Mudanjiang Xiaoguokui Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
25	Heilongjiang Shaobaishan Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008
26	Heilongjiang Dabaishan Wind Power Project	0.61	Fa Gai Jia ge [2008] 1876	07/2008

From above table, we can find that according to the publicly available tariff notifications, there are only a few wind power projects that achieve higher tariff than the project activity:

- In 2004, favorable tariffs for two projects (Project No. 1 and No. 2 listed in above table) were determined. However, there are significant distinctions among these two projects and the proposed project activity as analyzed in the common practice of the PDD, i.e. both projects are demonstration projects /3/, benefited from more favorable financial policy, which were funded by national soft loan /4/ and international low interest loan /5/ respectively, while the proposed project activity does not enjoy these favorable policies. Thus these two projects are not comparable to the propose project.

-In 2005, favorable tariffs for another four projects (Projects No. 3 to No. 6 in above table) were determined by Heilongjiang Provincial pricing administration respectively before the implementation of Law of the People's Republic of China *on Renewable Energies* and *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* (Document No. Fa Gai Jia Ge [2006]7).

From 2006, with the implementation of Law of the People's Republic of China *on Renewable Energies* and *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* (Document No. Fa Gai Jia Ge [2006]7), the tariff of wind power projects began to be unified. In Sep. 2007, Heilongjiang Provincial pricing administration issued tariff notification for two projects (Project No. 7 and No. 8 listed in above table). Later, China National Development and Reform Committee (NDRC) issued Fa Gai Jia ge [2007]3303 in Dec. 2007 to regulate the tariff of wind power projects in China. From then on, the tariff of wind projects in Heilongjiang Province began to be unified by NDRC and remains at 0.61RMB/kWh (evidenced by Fa Gai Jia Ge [2008] 1876), making the expectation of investment return more clearly than ever for wind farm developer.

BVC confirms that the determination of tariffs in China is a result of sovereign government decision-making. And to the extent that a reduction in tariffs has occurred, the origin of such a reduction lies on a number of factors, in particular with encouraging policy for wind power development, the maturing of the technology globally and increasing domestically manufactured technology penetration. Viz.

At the early stage of wind development, most of the wind turbines were imported and the



technology in domestic was comparatively dropped behind, thus at that time the investment for wind equipment imported abroad was comparatively higher than the domestic-made; furthermore, the technology for operation and maintenance of wind turbines was not very advanced at that time thus the technical risk and relevant cost was higher. However, in recent years, encouraged by favorable policies such as *Relevant Regulations On the Construction and Management of Wind Power Project* issued by NDRC<sup>1</sup>, *Renewable Energy Law* and *Tentative Management Measures for Price and Sharing of Expenses for Electricity Generation from Renewable Energy*, the Chinese wind turbine manufacturers contribute their efforts in the technology developing, the wind power technology and equipment maintenance becomes more and more mature, and domestic wind turbines have been introduced more and more to some extent, e.g. the market share addition for domestic manufacturers from 2004 to 2007 were 25%, 29.4%, 41.3%, and 55.9% respectively<sup>2</sup>.

Furthermore, the four projects of year 2005 (Project No.3 to No.6 in the table above) are all registered CDM projects, showing that these projects were also financially unattractive with the higher tariff.

Therefore, BVC is of the opinion that the net return to the investor has not been materially affected as a result of the reduction in the tariff due to other changes discussed above.

The Feasibility Study Report (FSR) of this project activity was finalized in May 2007, after the implementation of *Law of the People's Republic of China on Renewable Energies* and *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* (Document No. Fa Gai Jia Ge [2006]7) in 2006. According to the policy (Document No. Fa Gai Jia Ge [2006]7), the tariff of renewable energy project would be 0.25RMB/kWh higher than the average tariff for thermal power projects. Therefore, the designer of the project activity, a qualified third party, employed a tariff in FSR with consideration of Document No. Fa Gai Jia Ge [2006]7 and *Notice on the Adjustment of Electricity Price of Northeast China Grid* by NDRC (Document No. Fa Gai Jia Ge [2006]1231) issued by NDRC in 2006 for the average tariff of thermal power projects (0.3567 RMB/kWh), and thus applied 0.61RMB/kWh (incl. VAT) (round numbers of 0.3567 plus 0.25) for investment analysis of the proposed project activity in the FSR. BVC had verified the Document No. Fa Gai Jia Ge [2006]7, which stated that the tariff of renewable energy project would be 0.25RMB/kWh higher than the average tariff of thermal power projects; in addition, according to Document No. Fa Gai Jia Ge [2006]1231, the average tariff for thermal power projects in Heilongjiang Province was 0.3567RMB/kWh. Therefore, BVC confirmed that the 0.61RMB/kWh (round number of 0.3567 plus 0.25) of tariff employed in the FSR and PDD is appropriate.

Furthermore, the tariff employed in the PDD has been crosschecked with the latest tariff notifications issued by national government from 2007 (Fa Gai Jia Ge [2007]3303) till the second half of 2008 (Fa Gai Jia Ge [2008]1876), the guided tariff for all wind farms located in Heilongjiang Province are all 0.61RMB/kWh (incl. VAT). Therefore, BVC confirmed that the 0.61RMB/kWh of tariff employed in the PDD taken from the FSR is appropriate.

## ***Issue 2 for request for review***

*The DOE shall clarify how it has validated the input values in accordance with VVM Para. 111 (c) requirements, in particular the treatment of income tax as the investment decision was made in 2008.*

1 In this regulation, it is required that the share of domestic-manufactured equipment used in the wind power project shall reach 70%.

2 Statistics on Installed Capacity of Wind Power Projects issued by China Wind Energy Association, whose statistics has been widely cited in common practice



**Bureau Veritas Certification's response:**

As indicated in the validation report submitted for request for registration, BVC had elaborated that how the input values from the FSR were validated according to EB 38 para. 54(c), which is the same as the VVM para.111(c).

BVC verified the data sourced from other reliable and applicable sources and then cross-checked with the input data used in the financial analysis of the PDD submitted for registration, and summarized as below:

Item	Unit	Value	Data source review	Further assessment by crosschecking	BV's conclusion
Total investment	10000 RMB	30,656.59	Check FSR	Crosschecked with the already signed contracts of key equipments by BVC, and found that the total contract value for main equipments and construction is close to the sub-item one estimated in the FSR.	Consistent and reasonable
Annual feed-in electricity	MWh	719,450	Check FSR.	Crosschecked with the design parameters of wind turbine manufactured by Sinovel Wind Co., Ltd. and found that it was designed based on the wind resource data of the local area from 1971 to 2005. The operational hours does typically depend on the wind speed. In addition, the practical operational hours of wind farm in China is in the range between 2,000 and 2,400 hours according to <i>The development of New Energy and Renewable Energy need Policy Support policy</i> which is prepared on March 22nd, 2005 by Wen Kegang who is member of the National Committee of Chinese People's Political Consultative Conference (CPPCC), Vice Chairman of the Committee of Population, Resources and Environment of the CPPCC National Committee. And the operating hours of the Project, i.e. 2,398hours, fall in above range of 2,000 to 2,400 hours.	Consistent and reasonable
Annual O&M cost	10000 RMB	620	Check FSR	Crosschecked with the relevant criteria for wind farm design as well as the same item of those CDM projects in China	Consistent and Reasonable
Operation	year	20	Check	Crosschecked with the common	Consistent





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lifetime			FSR	design criteria in the sector	and Reasonable
VAT	%	8.5	Check FSR	Crosschecked with the official web information about taxation regulation.	Consistent

For the validation and treatment of tariff and income tax, BVC here specially clarify more detailed how to validate the data used in the financial analysis of the PDD submitted for registration as below:

1, According to the *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* published in 2006, the tariff of renewable energy project would be 0.25RMB/kWh higher than the average tariff for thermal power projects. BVC has verified the *Notice on the Adjustment of Electricity Price of Northeast China Grid by NDRC* (Document No. Fa Gai Jia Ge [2006]1231) issued by NDRC in 2006 and *Tentative Management Measures for Price and Sharing of Expenses for Electricity Generation from Renewable Energy* (Document No. Fa Gai Jia Ge [2006]7) and found that tariff of 0.61RMB/kWh (incl. VAT) for investment analysis of the Project in the FSR is appropriate.

The new income tax rate of 25% came into effect on 01/01/2008. Before 01/01/2008, the income tax rate was 33%. As the FSR was finished in May 2007, earlier than 01/01/2008, so BVC confirmed that the income tax rate of 33% used in the FSR is appropriate.

Thus it is of BVC's opinion that the tariff and income tax in the FSR complied with actual condition while compiling the FSR.

2, During the validation process, it was noticed that the income tax rate and tariff were both changed before the time of the investment decision making on 18/01/2008. As interviewed with PP, the actual tariff and income tax rate had been considered when the final investment decision was made. According to the tariff approved by NDRC for *Wuerguli 30MW Wind Power Project* (Project No.9 in the table above for issue 1), which also belongs to the same project owner and has been registered as a CDM project (registration reference No. 1209) and the PPA of *Wuerguli 30MW wind Power Project* signed between PP and the grid company, the tariff of *Wuerguli 30MW Wind Power Project* is 0.61RMB/kWh (incl. VAT) for the first 30,000 operating hours, and then down to the local thermal power plant average tariff for the rest operating hours, which is 0.3567 MB/kWh at the time of investment decision. Furthermore, the confirmation letter from grid company /7/ states that the tariff for this project activity is also 0.61RMB/kWh for the first 30,000 operating hours, and then down to the local thermal power plant average tariff for the rest operating hours. The income tax rate was changed to be 25% based on the new income tax law which came into effect on 01/01/2008.

BVC noticed that if the tariff and income tax rate from the FSR used in the IRR calculation are replaced both by the actual tariff and income tax rate and then recalculated, the new Project IRR would decrease from 7.09% (the one in PDD) to 6.33% (the new IRR calculation spreadsheet is provided in the annex). Both of the Project IRR values were lower than the benchmark of 8%, which indicated that the Project were both financially unattractive based on either the data of tariff and income tax rate from the FSR or the data of actual tariff and income tax rate. Considering that the Project IRR based on the data of tariff and income tax rate from the FSR was lower, it is of BVC's opinion that input values from FSR employed for investment analysis is appropriate and conservative.

3, Furthermore, even if only considering changing the income tax rate from 33% to 25% without consideration of different tariff value before and after 30,000hours, the project IRR was calculated to be 7.74%, still less than the benchmark of 8%. Thus the project will still be additional.

**Summary:**



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Therefore, BVC confirms that the input values are in accordance with VVM Para. 111 (c) requirements, including the treatment of income tax.

**Ref-1:** *Renewable Energy Law*

**Ref-2:** *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* (Document No. Fa Gai Jia Ge [2006]7)

**Ref-3:** <http://www.newenergy.org.cn/Html/9991/199911006.html>

**Ref-4:** <http://www.chinapower.com.cn/newsarticle/1005/new1005504.asp>

<http://wiki.mbalib.com/wiki/%E6%94%BF%E5%BA%9C%E8%B4%B7%E6%AC%BE>

**Ref-5:** <http://www.newenergy.org.cn/Html/9991/19991799.html>

<http://www.yadian.cc/paper/63751/>

**Ref-6:** *Regulations on Supervision and Management of Power Grid Enterprises' Full Purchase of Electricity Generated by Renewable Sources*

**Ref-7:** Tariff confirmation from the grid company of the proposed project

Hope the above responses given clarify the queries raised. In case you have any further inquiries please let us know as we kindly assist you.

Yours faithfully,  
For Bureau Veritas Certification Holding SAS

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