



VALIDATION REPORT

ENERGY SYSTEMS INTERNATIONAL B.V.

VALIDATION OF THE

LIAONING XIDAYINGZI WIND FARM PROJECT

REPORT No. CHINA-VAL/6028/2010

REVISION No. 01

BUREAU VERITAS CERTIFICATION

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VALIDATION REPORT

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Client: Energy Systems International B.V.	Client ref.: Francois Joubert
<p>Summary:</p> <p>Bureau Veritas Certification has made the validation of Liaoning Xidayingzi Wind Farm Project owned by Fuxin Huashun Wind Power Co., Ltd. located in Zhangwu County, Fuxin City, Liaoning Province, P.R. China on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.</p> <p>The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site visits and interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.</p> <p>The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.</p> <p>In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology ACM0002 version 12.1.0 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.</p>	

Report No.: CHINA-Val/6028/2010	Subject Group: CDM
Project title: Liaoning Xidayingzi Wind Farm Project	
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Abbreviations change / add to the list as necessary

BM	Build Margin
BVC	Bureau Veritas Certification
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO ₂	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DRC	Development & Reform Commission
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ERPA	Emission Reduction Purchase Agreement
FSR	Feasibility Study Report
GHG	Green House Gas(es)
GSP	Global Stakeholders Process
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISO	International Organization for Standardization
LOA	Letter of Approval
MP	Monitoring Plan
NDRC	National Development and Reform Commission
NEPG	Northeast China Power Grid
OM	Operating Margin
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
PRC	Peoples' Republic of China
SWPC	Statistics of wind power installed capacity in China
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation & Verification Manual
WTG	Wind Turbine Generator



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1 INTRODUCTION

Energy Systems International B.V. (hereafter called “ESI”) has commissioned Bureau Veritas Certification (hereafter called “**BVC**”) to validate the CDM project Liaoning Xidayingzi Wind Farm Project (hereafter called “**the Project**”) owned by Fuxin Huashun Wind Power Co., Ltd. (the project owner, hereafter called “**the PP**”) in Zhangwu County, Fuxin City, Liaoning Province, P.R. China.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The validation serves as project design verification and is a requirement of all projects. The validation is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Validation Team

BVC consists of the following personnel:

Ms. Yiting Li	Team Leader
Bureau Veritas Certification	Climate Change Lead Verifier
Ms. Jing Li	Team Member
Bureau Veritas Certification	Climate Change Verifier (Trainee)

2 METHODOLOGY

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and



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Verification Manual/Ref-1/, issued by the Executive Board at its 55th meeting on 30/07/2010. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Project Design Document (PDD) submitted by Energy Systems International (the consultant) and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for Completing the Project Design Document (CDM-PDD), Approved methodology, Kyoto Protocol, Clarifications on Validation Requirements to be Checked by a Designated Operational Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, ESI revised the PDD and resubmitted it on 01/12/2010 and the validation conclusion presented in this report relate to the Project as described in the PDD version 02./2/

2.2 Follow-up Interviews

On 14/09/2010, Ms Yiting Li and Ms. Jing Li from Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the PP, the consultant and local stakeholders were interviewed (see Section **6-References**). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Fuxin Huashun Wind Power Co.,Ltd. (The PP)	<ul style="list-style-type: none"> ☞ Project background information and CDM consideration. ☞ Project technology, operation, maintenance and monitoring capability. ☞ Project monitoring and management plan. ☞ Stakeholder consultation process. ☞ Project approval status (incl. EIA approval, CDM project approval status) ☞ Wind power development in the area ☞ Government policies related to wind power projects
Local Stakeholder	<ul style="list-style-type: none"> ☞ Project background in details ☞ Stakeholder comments ☞ Social and environmental impact of the project
Energy Systems International (the consultant)	<ul style="list-style-type: none"> ☞ Applicability of selected methodology. ☞ Baseline determination. ☞ Emission reductions calculation. ☞ Emission reduction monitoring plan.



2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

Corrective Action Requests (CAR) is issued, where:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

BVC may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

2.4 Internal Quality Control

The validation report underwent a technical review before requesting registration of the project activity. The technical review was performed by a qualified technical reviewer.

3 VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in **1** Corrective Action Request (CARs) and **10** Clarification Requests (CLs).

The CARs and CLs were closed based on adequate responses from the Project Participant(s) which meets the applicable requirements. They have been reassessed before their formal acceptance and closure.

The numbers between brackets at the end of each section correspond to the VVM paragraph.

3.1 Approval (49-50)

The letters of approval have been received and the following support documentation has been verified by BVC:

- ✍ The DNA of China has issued a Letter of Approval (No.2346) in Mar. 2010 authorizing Fuxin Huashun Wind Power Co., Ltd. as the Project Participant and confirms that Liaoning Xidayingzi Wind Farm Project contributes to China's Sustainable development. /3/
- ✍ The DNA of Netherlands has issued a Letter of Approval (2010ANL.408) on 29/11/2010, authorizing Energy Systems International B.V. as the Project Participant for the Project in China. /4/



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BVC received both letters of approval from the project participants and does not doubt the letters' authenticity.

The letters of approval do not contain a specific version of both the PDD and the validation report.

The title and contents of the letter of approval refer to the precise proposed CDM project activity title in the PDD being submitted for registration.

✎ Bureau Veritas Certification considers the letters of approval are in accordance with para. **45 - 48 /VVM**.

There are also evidences in various approvals issued by the local government of host country China, which are summarized as below,

✎ Feasibility Study Report (FSR) approved by Development and Reform Commission (DRC) of Liaoning Province on 28/07/2009 (Code: Liao Fa Gai Neng Yuan [2009] No. 718). /6/

✎ Environment Impact Assessment (EIA) approved by Environmental Protection Bureau of Liaoning Province on 30/03/2009 (Code: LHSB [2009] No.11). /7/

✎ The Project is a grid connected wind power and the development of such Grid connected wind power is listed in the Renewable Energy Law. /8/

3.2 Participation (54)

The participation for each project participant has been approved by a Party of the Kyoto Protocol.

✎ Complying with para.54/VVM, BVC hereby confirms that by referring to the information on UNFCCC website i.e.

<http://maindb.unfccc.int/public/country.pl?country=CN>; and

<http://maindb.unfccc.int/public/country.pl?country=NL>

3.3 Project Design Document (57)

BVC hereby confirms that the PDD complies with the latest forms of the guidance documents for completion of PDD (version 7).

3.4 Changes in the Project Activity

During the site visit, no changes about the Project design were observed as compared to information mentioned in webhosted PDD /1/.

Compared to the PDD version 01 uploaded for GSP /1/ , the final version of PDD (version 02) /2/ comprises a few changes. Key changes include:

- i) The methodology applied in PDD version 01 has been changed from ACM0002 version 11 to be ACM0002 version 12.1.0 in PDD version 02.

3.5 Project Description (64)

The Project is sited in Houxingqiu Town, Zhangwu County, Fuxin City, Liaoning Province, P.R. China, which has central geographical coordinates at north latitude 42°34'30" (42.575°) and east longitude 122°50'30" (122.842°).

The total installed capacity of the Project is 49.5 MW, consisting of 33 wind turbines, each with the unit capacity of 1,500kW, supplied by Dongfang Turbine Co., Ltd. The net



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electricity generated by the Project is 104,313MWh with a plant load factor (PLF) of 24.06%, based on the information of the FSR, which was finalized by a third party viz. Liaoning Electric Power Exploration & Design Institute contracted with the PP. Therefore, BVC confirms that the PLF defined in the FSR complies with the requirement of "Guidelines for the Reporting and Validation of Plant Load Factors ver.1" (EB48, annex 11) /Ref-7/. The Project will result in annual emission reductions of 107,236tCO₂e during the first crediting period.

In the absence of the Project, the equivalent amount of annual power output would be generated by the operation of power plants connected to Northeast China Power Grid (NEPG) and by the addition of new generation sources in the NEPG. This is same as the baseline scenario. The project scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Certified Emissions Reductions (CERs) under the CDM, based on the analysis presented in the PDD.

The overall layout of the Project is sound, and the geographical and temporal (7 years) boundary of the Project is clearly defined.

✎ The validation did not reveal any information that indicates that the Project can be seen as a diversion of official development assistance (ODA) funding towards the host country.

The processes undertaken by BVC to validate the accuracy and completeness of the Project description include the document review and crosscheck with the FSR and relevant approvals issued by local governments.

✎ Complying with para.64/VVM, BVC hereby confirms that the project description in PDD /2/ is accurate and complete in all respects and that there is no change to the project activity design or boundary as compared to the webhosted PDD /1/.

3.6 Baseline and Monitoring Methodology

3.6.1 General Requirement (76-77)

The Project uses the approved consolidated baseline and monitoring methodology ACM0002 version 12.1.0 – "*Consolidated baseline methodology for grid-connected electricity generation from renewable sources*" dated 26/11/2010 /Ref-2/.

By on-site visiting and interviewing with the PP, BVC confirms that the Project complies with the applicability conditions of methodology ACM0002 version 12.1.0. The steps taken to assess the relevant information contained in the PDD against each applicability condition are described below.

✎ The Project is a grid-connected renewable wind power project that install a new power plant at a site where no renewable power plant was operated prior to the implementation of the Project (green-field plant);

✎ The Project does not involve switching from fossil fuels to renewable energy at the site of the Project.

BVC hereby confirms that the selected baseline and monitoring methodology/Ref-2/, tools /Ref-3//Ref-4/ and other methodology component is previously approved by the CDM Executive Board, and is applicable to the Project, which, complies with all the applicability conditions therein.

Based on the on-site assessment, BVC hereby confirms that, as a result of the implementation of the Project, there are no greenhouse gas emissions occurring within the project boundary, which are expected to contribute more than 1% of the overall



expected average annual emissions reductions, which are not addressed by the applied methodology.

3.6.2 Project Boundary (80)

BVC has validated the project boundary by:

- a) Assessing the relevant documents including FSR;
- b) Observing the physical site and equipment used in the process.

The spatial extent of the project boundary is clearly defined in line with ACM0002 version 12.1.0 as the physical, geographical site of Project and all other power plants connected physically to the NEPG that the Project is connected to. The greenhouse gases and emission sources included in the project boundary are CO₂ emissions from the electricity generation in fossil fuel fired power plants that are displaced due to the project activity.

☞ Complying with para.80/VVM, BVC hereby confirms that the identification of project boundary is in line with the delineation of grid boundaries as provided in the latest version of “Notification on Determining Baseline Emission Factor of China’s Grid” published by NDRC (China’s DNA) on 02/07/2009 (hereafter called “Notification of China-Grid EF”). /9/

During on-site visit, via observations of the physical site, BVC hereby confirms that the identified boundary and the selected sources and gases are justified for the Project.

3.6.3 Baseline Identification (87-88)

The Project is the installation of a newly built and grid-connected renewable power plant that delivers the generated electricity to the NEPG, hence, according to methodology ACM0002, the baseline scenario is determined properly as:

Electricity delivered to the grid by the Project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system” version 02 (hereafter called “Tool-Grid EF”) /Ref-3/.

According to the “Notification of China-Grid EF”, the delineation of grid boundary of the Project is the NEPG. Furthermore, the baseline of the Project determined in the PDD i.e. “electricity delivered to the grid by the Project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources” is transparent and deemed to be reasonable.

☞ Complying with para. 87 and 88/VVM, BVC hereby confirms that:

- (a) All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- (d) Relevant national and/or sector policies and circumstances are considered and listed in the PDD;



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- (e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.6.4 Algorithms and/or Formulae used to Determine Emission Reductions (92-93)

The steps taken to assess the requirement outlined in paragraph 89 the VVM are described below:

According to the baseline methodology ACM0002 Version 12.1.0 and “*Tool-Grid EF*” version 02 /Ref-3/, the baseline emission factor was calculated as following seven steps. In addition, the calculation in the PDD refers to the latest “*Notification of China-Grid EF*” published by China’s DNA on 02/07/2009 /9/, which is the most recent information available at the time of CDM-PDD submission to BVC for validation.

As per “*Tool-Grid EF*” version 02, seven steps therein are applied to calculate the emission factor:

Step 1.-Identify the relevant electricity systems.

Northeast China Power Grid (NEPG) is selected as the electric power system of the Project as per “*Notification of China-Grid EF*” issued by China’s DNA at the time of commencing this validation. NEPG does not import electricity from other regional grids.

☞ BVC was able to confirm that the identified electric power system of the Project is consistent with “*Notification of China-Grid EF*”. The geographical extent of the project activity system has been documented transparently and all grid power plants connected to the system have been identified.

Step 2.- Choose whether to include off-grid power plants in the project electricity system (optional)

Option I (only grid power plants are included in the calculation) provided in “*Tool-Grid EF*” version 02 is chosen to calculate the operating margin and build margin emission factor.

Step 3.-Select an operating margin (OM) method.

For the calculation of the OM emission factor, the simple OM emission factor calculation method is selected because low cost/ must-run projects constitute less than 50% of the total grid generation during the last 5 years.

☞ Only grid power plants are included in the calculation. BVC has checked the calculation for low cost/must-run constitution of the total grid generation and confirmed the calculation is correct. Therefore, simple OM emission factor calculation method is selected reasonable. A 3-year generation-weighted average, based on the most recent data from China Electric Power Yearbook 2006-2008, which are the data available at the time of submission of the CDM-PDD to the BVC for validation, has been applied and calculated correctly.

Step 4.-Calculate the operating margin emission factor according to the selected method.

Option B, Based on data on the total net electricity generation of all power plants serving the system and the fuel types and total fuel consumption of the project electricity system, is used to calculate simple OM emission factor. The data of electricity generation and auxiliary electricity consumption are obtained from the China Electric Power Yearbook from 2006 to 2008 (published annually). The data of different fuel consumptions for power generation and the net caloric values of the fuels are obtained from the China Energy Statistical Yearbook from 2006 to 2008. The emission factors of the fuels adopted are



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obtained from Table 1-2 and Table 1-4 of the "2006 IPCC Guidelines for National Greenhouse Gas Inventories: Workbook."

The renewable crediting period is adopted for the Project and the OM will be fixed for the first crediting period.

✎ The data source are deemed reasonable and BVC confirms that the calculation can be replicated using the data and parameter provided in the PDD.

Step 5.-Identify the group of power units to be included in the build margin (BM).

The set of power capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that have been built most recently (Option b) is adopted properly for the Project.

Considering data availability, deviation accepted by EB was used in the PDD i.e.

- 1) Use of capacity additions during the last 1~3 years for estimating the build margin emission factor for grid-connected electricity.
- 2) Use of weights estimated using installed capacity in place of annual electricity generation.

✎ BVC hereby confirms that the data source and approaches taken are deemed reliable.

Step 6.-Calculate the build margin emission factor.

The BM emission factor of the power grid is calculated by multiplying the emission factor of the thermal power with the share of the thermal power in the most recently added approach to 20% of total installed capacity. The emission factor for thermal power is determined based on the most advanced and commercially available technology endorsed by China's DNA.

✎ BVC hereby confirms that the data sources are deemed reliable and calculation is appropriate.

Step 7.-Calculate the combined margin (CM) emissions factor.

According to the "Tool-Grid EF", the default weights $\omega_{OM} = 0.75$ for Operating Margin and $\omega_{BM} = 0.25$ for build Margin in the first crediting period of Wind Power Projects are adopted.

As per baseline methodology ACM0002 and "Tool-Grid EF", the emission reduction ER_y during the crediting period is the difference between baseline emissions, project emissions and leakage. These are:

- 1) Baseline emissions: baseline emissions BE_y (tCO₂) are equal to baseline emission factor $EF_{grid,CM,y}$ (tCO₂/MWh) times the net electricity supplied to the grid $EG_{PJ,y}$ (MWh) (Project is a Greenfield wind power plant, therefore $EG_{PJ,y}$ equals to $EG_{facility,y}$ that is quantity of net electricity generation supplied by the project plant/unit)
- 2) Project Emissions: the project emissions are regarded as zero as per methodology ACM002 version 12.1.0.
- 3) Leakage: no leakage has to be considered as per methodology.
- 4) Emission reductions:

$$ER_y = BE_y - PE_y = BE_y = EF_{grid,CM,y} \times EG_{PJ,y}$$

With reference to the Tool-Grid EF, the Simple OM emission factor ($EF_{grid,OM,y}$) of NEPG is calculated as 1.1293 tCO₂e/MWh. Similarly, the build margin emission factor ($EF_{grid,BM,y}$) of the NEPG is calculated as 0.7242 tCO₂e/MWh.



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Therefore, the combined baseline emission factor is determined ex-ante and will remain fixed during the first crediting period, viz.

$$EF_{grid,CM,y} = 1.1293 \times 0.75 + 0.7242 \times 0.25 = 1.028025 \text{ tCO}_2\text{e/MWh}$$

According to the estimated annual electricity delivered to the grid 104,313 MWh, the estimated annual emission reductions of the Project is 107,236 tCO₂e during the first crediting period represents a reasonable estimation using the assumptions given by the Project.

✌ Complying with para.92 and 93/VVM, BVC hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- (c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- (d) The baseline methodology ACM0002 and “*Tool-Grid EF*” has been applied correctly to calculate project emissions, baseline emissions, leakages and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

3.7 Additionality of a project activity (97)

The steps taken and sources of information used to cross-check the information contained in the PDD on this matter are described below:

“*Tool for Demonstration and Assessment of Additionality*” version 5.2 /Ref-4/ has been employed for demonstrating and assessing the additionality of the Project. The additionality of the project has been carefully checked, in doing so BVC has put the main focus on the following issues:

3.7.1 Prior Consideration of the clean development mechanism (104)

3.7.1.1 Historical Information on Project Timeline

It has been demonstrated by the timeline of events of the Project that the CDM revenues were seriously considered in the decision to proceed with the Project prior to start of the Project and, the continuing and real action were taken to secure CDM status for the Project in parallel with its implementation:

Table 2 Timeline of the Project

Date	Events	Evidence verified
March, 2009	The Feasibility Study Report (FSR) of Project was completed, in which the Project IRR without CER associated revenues was lower than the benchmark of 8%.	/5/
15/06/2009	Based on the conclusion of FSR, PP decided to seek CDM support to overcome the investment	/10/



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	barriers associated with the Project.	
15/08/2009	Civil Engineering Contract was signed	/14/
20/08/2009	Wind Turbine Generators and Towers Purchase Agreement was signed	/12/
02/09/2009	Construction permission was issued	/11/
29/09/2009	Emissions Reductions Purchase Agreement was signed	/15/
17/12/2009	The notification for the prior consideration of the CDM was sent to the UNFCCC secretariat	/17/
21/12/2009	The notification for the prior consideration of the CDM was sent to DNA of China	/16/
28/07/2010	PDD was published for global stakeholder consultation	/37/

From above table, BVC was able to verify that the start date of the Project determined as 15/08/2009 is appropriate (when civil engineering contract was signed) /14/, which is the earliest of the dates at which the implementation or construction or real action of the Project began. This is in accordance with the latest CDM glossary/Ref-6/.

3.7.1.2 Prior consideration of CDM

The Project is a new project according to the definition in the “*Guidelines on the demonstration and assessment of prior consideration of the CDM*” version 03 (Annex 22, EB 49, 11/09/2009) (hereinafter called “Guidance-Prior Consideration”)/Ref-5/, i.e. the start date of the Project is after 02/08/2008. The start date of the Project is also prior to the date of publication of the PDD for global stakeholder consultation on 28/07/2010. Through documents reviews, BVC assessed the PP prior consideration of the CDM. BVC has checked the board meeting minutes of the investment decision made on 15/06/2009 /10/, and confirmed that the benefits of the CDM were a decisive factor in the decision to proceed with the Project. It was found that PP informed UNFCCC secretariat and DNA of China in writing of the commencement of the Project and of their intention to seek CDM support on 17/12/2009 and 21/12/2009 respectively, within six months of the Project start date /16//17/. The assessment of the Prior Consideration of the Project is conducted by consulting the UNFCCC website, and BVC hereby confirms that the CDM benefits were considered necessary in the decision to undertake the Project.

☞ According to the latest Glossary of CDM terms Ver. 05 /Ref-6/ and “*Guidance-Prior Consideration*”, BVC confirms that the start date of the Project in the PDD is appropriate and reasonable at that situation.

☞ Complying with para.100-103/VVM, BVC has verified this issue, which could significantly influence the additionality of the Project, and confirms that the serious consideration under the context of the Project has been addressed appropriately in accordance with the above guidance. Consequently, the chronological events described



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with the relevant documented evidences are the objective foundation on which BVC developed its validation opinions.

3.7.2 Identification of Alternatives (107)

The plausible and credible alternatives available to the Project were identified as per the “Tool-Additionality” Version 05.2 /Ref-4/:

Alternative (a): The continuation of current situation, which is equivalent electricity generation supplied by grid-connected power plants (NEPG);

Alternative (b): The Project undertaken without being registered as a CDM project activity.

BVC confirms the list of alternatives complete. Both alternative (a) and alternative (b) are consistent with mandatory laws and regulations.

☞ Complying with para.107/VVM, BVC was able to verify that the alternatives identified to the Project are credible and complete. Hence **Step 1** of “Tool-Additionality” was applied appropriately.

3.7.3 Investment Analysis (114)

Considering the baseline scenario identified above, option III, the Benchmark Analysis, is applied in the investment analysis as per the *Sub-step 2b* of **Step 2** of “Tool-Additionality”, which is in accordance with “Guidelines on the Assessment of Investment Analysis” (Ver. 3.1) /Ref-8/.

Project IRR of 8% (post-tax) was employed by the Project as benchmark, which is sourced from the “Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects” issued by State Power Corporation of China /19/. BVC has verified this benchmark and confirms that it is widely applied in Chinese power generation industries; therefore, BVC confirms that the benchmark is suitable for the Project.

Before reviewing the IRR calculation, BVC has validated the basic parameters listed in the PDD in accordance with the Guidance of **Para. 113/VVM**. /Ref-1/

BVC has verified the IRR calculation /29/ and found that the input values are fully taken from the approved FSR /5/, which was carried out by an authorized third party viz. Liaoning Electric Power Exploration & Design Power Design Institute, a top class design institute in the power industry authorized by the government of China.

According to the relevant evidence provided, BVC confirms that the PP’s final decision to proceed with the investment in the Project has been made based on the approved FSR /5/, which was finalized in **March 2009**. Based on the conclusion in the FSR, PP decided to invest in the Project on **15/06/2009** with the support from CDM revenues. Given this relative short period of time between FSR and the decision to proceed with the Project, BVC was therefore confident that it is unlikely in the context of the underlying Project that the input values would have materially changed, which is in line with the **Para. 113(a)/VVM**.

At the same time, BVC compared the input values for the financial analysis in the PDD and FSR, and confirms that all the input parameters used in the financial analysis are taken from the FSR that was approved by Development and Reform Commission (DRC) of Liaoning Province. BVC was therefore of the opinion that the investment analysis is in accordance **Para. 113(b)/VVM**.



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Furthermore, BVC has reviewed the IRR calculation sheet and cross-checked the input values against relevant regulations/laws/evidences and confirms that:

- ✎ The **operation period** of 20 years was selected reasonably following the requirements of “*Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects*” and Para.3 of “*Guidelines on the Assessment of Investment Analysis*” ver.03.1./Ref-8/. This is also consistent with the lifespan of wind turbine generator indicated in the purchase agreement. /12/
- ✎ The **residual value rate** of 5% was in compliance with relevant regulation in China, i.e. *Enterprise Income Tax Law Implementation Regulations of People's Republic of China* (The People's Republic of China State Council Order No. 512) /20/.
- ✎ The **total project cost** in the approved FSR is 506.54 million RMB and unit investment is 10,233 RMB/kW (about 1,023€/kW).
 - According to China Wind Power Report 2008 /21/ published by China Environmental Science Press in Oct. 2008, the unit cost of wind power projects varies from 800€/kW to 1150€/kW, and the unit investment of the Project (about 1,023 €/kW) falls in this range and was verified appropriate.
 - Furthermore, BVC has crosschecked the estimated total project cost against the already signed contracts of key equipments (e.g. turbine, tower, main transformer, etc.) /12//13/, and civil engineering /14/, and found that the total value of the contracts equals to 459.94 Million RMB and accounts for 90.8% of the estimated total project cost in the FSR. The value of already signed contracts is either close to or higher than the relevant parts in the FSR.
 - BVC has also checked investment per unit of all registered CDM wind projects in Liaoning Province and found that unit investments (RMB/kW) vary from 8,306 RMB/kW to 10,485 RMB/kW (referring to Table 3). The investment per unit of the Project (10,233RMB/kW) falls within this range. Therefore, BVC can confirm that the total project cost estimated in FSR is appropriate, valid and applicable at the time of the investment decision.

**Table 3 - Input values of the similar registered CDM wind projects in Liaoning Province**

Ref No.	Project	Installed Capacity (MW)	Total project cost (10 ⁴ RMB)	Annual Power Supply (MWh)	Annual O&M cost (10 ⁴ RMB)	Unit Investment (RMB/kW)	Unit Annual O&M cost (RMB/kWh)	Plant Load Factor (%)
0537	Liaoning Kangping 24.65MW Wind Farm Project	24.65	22,843	53,230	N.A.	9,267	N.A.	24.7
0539	Liaoning Zhangwu 24.65MW Wind Farm Project	24.65	22,729	51,414	N.A.	9,221	N.A.	23.8
0883	Liaoning Changtu Wind Farm Project	49.5	41,864	90,886	N.A.	8,457	N.A.	21.0
1446	Liaoning Xingcheng Haibin Wind Farm Project	49.5	44.113	111,007	994	8,912	0.090	25.6
1501	Liaoning Huanren Niumaodashan Wind Power Project	24.65	22,546	53,930	875	9,146	0.162	25
1924	Liaoning Faku Heping Wind Power Project	49.3	43,052	106,230	1,065	8,733	0.100	24.6
1965	Liaoning Faku Wanghaisi East Wind Power Project	22.1	19,475	47,743	866	8,812	0.181	24.7
2149	Diaobingshan New-built 49.5MW Wind Power Station Project	49.5	42,817	93,555	1,253	8,650	0.134	23
2223	Liaoning Faku 1st phase Wind Power Project	49.5	47,468	101,292	1,386	9,589	0.137	23.4
2817	Liaoning Changtu Shihu Wind Power Project	49.3	40,950	101,420	1,006	8,306	0.099	23
2864	Liaoning Kangping Furaoshan Wind Power Project	49.5	41,457	97,486	1,180	8,375	0.121	22.48
2918	Huaneng Liaoning Fuxin Phase II Wind	300	288,280	639,490	6,608	9,609	0.103	24.3



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	Farm Project							
3112	Liaoning Province Zhangwu Mazongshan Wind Farm Project	49.5	51,903	113,032	1413.87	10,485	0.125	26.1
2854	Shenyang Faku Wanghaisi Wind Power Project	20.4	17,097	42670	N.A.	8,381	N.A.	23.9
2123	Liaoning Faku Baijiagou Wind Power Project	49.5	44,169	108,520	1000	8,923	0.092	25.0
2827	Dalian Tuoshan Wafangdian Wind Farm Project	49.5	51,606	113,800	N.A.	10,425	N.A.	26.2
3031	Liaoning Changtu Taiyangshan Phase One 49.5MW Wind Farm Project	49.5	47,404	96,000	972	9,577	0.101	22.1
3470	Liaoning Faku Ciensi Wind Power Project	49.3	46,851	110,080	1329	9,503	0.121	25.5
3806	Liaoning Changtu Quantou Wind Power Project	49.3	41,654	100,751	1036	8,449	0.103	23.3
3862	Liaoning Qujiagou Wind Farm Project	49.5	46,250	103,346	1383	9343	0.134	23.8
3934	Liaoning Linghai Shengli Wind Farm Project	49.5	48,559	102,179	873	9809	0.085	23.6
	The Project	49.5	506.54	104,313	1260.34	10,233	0.121	24.06

✎ The **tariff** of 0.61 RMB/kWh (incl.VAT) used in the PDD is taken from FSR, which was completed by a qualified third party in March, 2009. BVC has reviewed the relevant tariff policies and approvals for wind power projects in Liaoning Province since 11/11/2001, summarized as below:

- On 28/05/2003, China National Development and Reform Committee (NDRC) issued the document Fa Gai Jia Ge[2003]No.424 /22/, and the tariff of wind power projects located in Liaoning Province was approved to be 0.55 RMB/kWh (incl. VAT) in the document.
- On 03/12/2007, China NDRC issued the document Fa Gai Jia Ge [2007] No.3303 /23/, and the tariff of wind power projects located in Liaoning Province was approved as 0.61 RMB/kWh (incl. VAT) in the document.
- On 23/07/2008, China NDRC issued the document Fa Gai Jia Ge [2008] No.1876 /24/, and the tariff of wind power projects located in Liaoning Province was approved as 0.61 RMB/kWh (incl. VAT) in the document.



When the FSR was finalized in March, 2009, based on the available tariff documents at that time /22//23//24/, the highest wind power tariff in Liaoning Province was 0.61 RMB/kWh (Incl. VAT) and was employed in the FSR.

- After the completion of the FSR, NDRC issued another tariff notification:
 - ✓ Document Code Fa Gai Jia Ge [2009] No.1906 on **20/07/2009** (Hereinafter called “[2009] 1906”) /25/

According to this latest notification, the wind power tariff in Liaoning Province is still 0.61 RMB/kWh (Incl. VAT). BVC therefore concludes that the tariff for wind power projects in Liaoning Province remains to be 0.61 RMB/kWh (Incl. VAT).

- Furthermore, BVC has studied the Information Note on the Highest Tariff applied by the Executive Board in its Decisions on Registration of Projects in the People’s Republic of China version 01 /41/, and found that the highest applicable tariff for wind power projects in Liaoning Province is 0.61 RMB/kWh (Incl. VAT) as well.

In summary, the tariff of 0.61 RMB/kWh (Incl. VAT) in FSR is consistent with the tariff notifications released by NDRC (Fa Gai Jia Ge [2007]3303, [2008]1876, [2009]1906), Therefore, BVC is of the opinion that the tariff applied in the FSR is available and applicable at the time of investment decision.

- ✎ The **annual power supply** of the Project was determined based on the long-term wind resources data and simulation by professional software. Therefore the supplied electricity is considered to be appropriate.

- The plant load factor of 24.06% (annual utilization hours of 2,107h) was determined based on the information from FSR, which was developed by an accredited third party (Liaoning Electric Power Exploration & Design Institute) contracted with the PP. Therefore, BVC confirms that the plant load factor determined in the FSR complies with the requirement of “Guidelines for the Reporting and Validation of Plant Load Factors ver.1” (EB48, annex 11) /Ref-7/.
- BVC has also checked plant load factor of all registered CDM wind power projects in Liaoning Province and found that plant load factor varies from 21.0% to 26.2% (referring to table 3). The PLF of the Project is 24.06%, falls in the range and is verified to be appropriate.

- ✎ BVC confirms that the **annual O&M cost** is the sum of salary and welfare of employees, material fee, maintenance fee, insurance fee and miscellaneous account, which was studied based on the “Code on Compiling Feasibility Study Report of Wind Farms” issued by NDRC /26/ and “Economic Evaluation Method and Parameters for Project Construction” (version 3)/27/.

- BVC has also checked available O&M cost information for registered CDM wind projects in Liaoning Province (referring to table 3), and found that the unit O&M costs vary from 0.085 RMB/kWh to 0.181 RMB/kWh. The O&M cost of the Project is calculated to be 0.121RMB/kWh, with in the range above. Therefore, BVC is able to confirm that the annual O&M costs used is appropriate and reasonable.

- ✎ A post-tax benchmark is applied for the investment analysis of the Project. BVC has checked the IRR calculation sheet and confirms that the interest has been taken into account in the calculation of income tax. The **interest rate** (5.94%) assumed in the IRR calculation is the same one as prevailing commercial interest rate in China obtained from People’s Bank of China /28/. Furthermore, BVC has checked the loan



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contracts signed between the PP and the bank /30/, and found that the Project enjoys 10% discount on the **interest rate**. Interest rate applied in the investment analysis (5.94%) is greater than the actual interest rate, which results in higher project IRR. This means that the value of interest rate (5.94%) assumed in FSR/PDD is conservative. In addition, the actual loan granted in contracts (300 million RMB) is close to the value of loan sourced from the FSR (336 million RMB). Through comparison, IRR would be higher by applying the value (336 million RMB) in the FSR. Hence, the value of loan assumed in FSR/PDD caused a conservative result in IRR calculation. BVC confirms that the interest payable has been taken into account in the calculation of income tax and deemed appropriate.

- ✎ BVC has checked the IRR calculation sheet and confirm that **depreciation** has been deducted in estimating gross profits on which tax is calculated, and be added back to net profits for the purpose of calculating the financial indicator. BVC confirms that the depreciation calculated complies with “Economic Evaluation Method and Parameters for Project Construction” (version 3).
- ✎ BVC has also verified values of various **taxes** through crosschecking against the taxation rules conducted by local government and found to be fully consistent.
 - The income tax of 25% complies with *Enterprise Income Tax Law of China* which is effective from 01/01/2008. /32/
 - With respect to the VAT

On 09/12/2008, Ministry of Finance and the State Administration of Taxation issued *Notice of Value Added Tax Policy Regarding Products Using Certain Synthesized Resources and Other Products* (Cai Shui [2008]156) /31/. In accordance with Cai Shui [2008]156, the VAT of 17% that is the normal VAT rate in China, should be calculated at first, then half of the actual VAT payment for electricity sale of wind power projects will be refunded to the Project.

Ministry of Finance and the State Administration of Taxation issued the *Notice about National Value-Added Tax Reform and Transition* (Cai Shui [2008]170) on 19/12/2008 /33/. In accordance with Cai Shui [2008]170, enterprises are allowed to deduct the VAT payments of newly purchased equipments. or the Project, the actual VAT payment (calculated using 17%) would be zero during the first few operational years until the input VAT payable of main equipments have been fully deducted. Afterwards, half of VAT payments are refunded to the Project annually. The calculation is fully consistent with the FSR and the regulations above.

In summary, based on the above reliable data sources, BVC was able to confirm that the input values from the FSR are valid and applicable at the time of making the investment decision. Therefore, BVC confirms that the investment analysis is in accordance with the **Para. 113(c)/VVM**.

The project IRR of the Project without CDM revenues is 6.43%, lower than the benchmark, which shows that the Project is not financially attractive compared to the benchmark in the absence of CDM benefits.

BVC has reviewed the IRR calculation /29/ and confirms that the IRR processing is consistent with the “*Guidelines on the assessment of investment analysis*” version 3.1 and the data sources as well as the analysis approach are reliable and based on the FSR linking directive to the actual situation of the host country. Four financial parameters were taken as uncertain factors for sensitive analysis of financial attractiveness:



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- Total project cost
- Annual O&M cost
- Annual electricity supply
- Tariff

According to “Code on compiling feasibility study report of wind power projects” published by NDRC /26/, total project cost, annual electricity supply and tariff should be taken as uncertain factors to do sensitivity analysis, and $\pm 10\%$ variation of above factors shall be considered in the sensitivity analysis. Therefore, BVC confirms that the variables and variations $\pm 10\%$ performed for sensitivity analysis is deemed to be appropriate for the Project. The project IRR (post-tax) is less than 8% with the $\pm 10\%$ variations of four parameters, including total project cost, annual O&M cost, annual electricity supply, and tariff.

- With a decrease in **total project cost** by 11.50%, the Project IRR may reach 8%. However, it has been verified that the total value of already signed contracts of main equipments /12/ /13/, civil engineering /14/ and others accounts for more than 90% of total project cost estimated by the approved FSR. Thus, BVC confirms that the total project cost won't decrease by 11.50%.
- The **annual O&M cost** comprises materials expense, maintenance cost, insurance fee, employee salary and welfare and miscellaneous accounts. All of these costs are determined by a qualified third-party entity based on long-term operational experience. With a decrease in annual O&M cost by 55.60%, the Project IRR may reach 8%. Considering the index of producer prices of industrial products and wage standard in China have been rising in recent years /38//39/, the annual O&M cost is unlikely to decrease by 55.60%.
- With an increase by 11.90% in **annual electricity supply**, the project IRR will reach the benchmark. By checking the approved FSR, the supplied electricity of the Project is based on long-term wind resource data and professional software simulation. Therefore, BVC confirms that it is unlikely that the supplied electricity could increase by 11.90% during the whole life of the Project.
- With an increase of **tariff** by 11.90%, the Project IRR will reach 8%. As per tariff notifications released by NDRC (Fa Gai Jia Ge [2007]3303, [2008]1876, [2009]1906), the wind power tariff for Liaoning Province is approved to be 0.61 RMB/kWh (incl. VAT) and tends to be stable since 2007. In addition, 0.61 RMB/kWh (incl. VAT) is also the highest wind power tariff in Liaoning province, as per Information Note on the Highest Tariff applied by the Executive Board in its Decisions on Registration of Projects in the People's Republic of China version 01. Therefore, BVC concludes that it is unlikely that the tariff could increase 11.90% to make IRR reach benchmark of 8%.

BVC can conclude that both of the variation range and relevant assumptions stated in the PDD are robust and the investment of the Project is deemed to be financially unattractive.

Considering the CERs sale revenues (calculated with 10.5 EUR/tCO₂e), the project IRR of the Project can be crossing the benchmark at 8.87% and become economically feasible.

☞ Complying with para.114/VVM, based on the assessment result by the financial expert engaged, BVC hereby confirms that the underlying assumptions are appropriate and the financial calculations are correct.



3.7.4 Barrier Analysis (118)

The **Step 3** Barrier analysis was not applied for the Project.

3.7.5 Common Practice Analysis (121)

The common practice analysis was addressed as per **Step 4** of “*Tool-Additionality*” and latest rules issued by EB.

The Project is a newly built 49.5 MW wind power project in Liaoning Province. Wind power projects located in the same province have similar wind resources, grid structure, geological and transportation conditions and economic development. Hence, Liaoning Province is considered as the geographic boundary to identify similar projects.

Since 2002, the reform has been implemented in China’s electric power sector to separate the grid and the power plant from the state power company /34/, therefore BVC can confirm that the wind power projects constructed after 2002 will face comparable regulatory framework and reasonable for the common practice analysis.

With the installed capacity of 49.5 MW, the Project is a large-scale project since renewable energy project activities with a minimum output capacity of 15 MW are considered as large-scale project activities. Therefore, wind power projects with installed capacity larger than 15 MW are considered comparable and similar activities to the Project.

Subsequently, BVC defined the criteria for identifying similar projects, which are,

- non-CDM wind power projects,
- with capacity larger than 15MW,
- constructed after 2002,
- located in Liaoning Province.

Following these criteria, BVC has checked the public sources i.e. “*Statistics of wind power installed capacity in China (2007) (2008)*” written by Mr. Shi Pengfei (the authoritative expert in the wind power sector) and “*Statistics of wind power installed capacity in China (2009)*” released by China Wind Energy Association. /35/.

As per the public information above, no activity similar to the Project other than CDM project activities is identified. Therefore, BVC can conclude that the Project is not common practice in the region.

☞ Complying with para.121/VVM, Based on above demonstration that in accordance with “*Tool-Additionality*” and supported by reliable data sources, it is the opinion of BVC that the Project is thus additional.

3.8 Monitoring Plan (124)

BVC hereby confirms that the monitoring plan complies with the requirements of the methodology.

The steps taken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design are described below.

The Project uses the approved consolidated monitoring methodology ACM0002 version 12.1.0 for grid connected electricity generation from renewable sources.

Applicability of this methodology is justified in PDD as it involves grid connected renewable power generation using wind energy. Refer discussions on the validity of the



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methodology at Section 3.6.1 above. BVC hereby confirms that the monitoring plan complies with the requirements of the methodology.

The ex-ante combined margin emission factor is determined based on the most recent information available /9/. According to the monitoring plan, two bidirectional meters (including one main meter and one backup meter) installed at the low voltage side of the main transformer would monitor the electricity exports to the grid and imports from the grid, and the net electricity is calculated by electricity exports minus electricity imports. In case the main meter is in malfunction, the backup meter will be used. Meters with the accuracy not lower than 0.5S are expected to be calibrated annually. The electricity will be continuously measured and monthly recorded. Readings will be checked against the power sale receipts. BVC is of the opinion that the monitoring plan complies with the requirements of the methodology.

Operational management for the project activity is comprehensively detailed in PDD and this includes description of the responsibility, procedure reference, calibration frequency and maintenance needs.

By on-site interview with the PP, BVC confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure the emission reductions achieved by the Project can be reported ex post and verified.

☞ Complying with para.124/VVM, BVC hereby confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the monitoring plan.

3.9 Sustainable Development (127)

The host Party's DNA confirmed the contribution of the project to the sustainable development of the host Party.

☞ Complying with para. 127/VVM, BVC recognizes that the Project is helpful to fulfill the host country's goals of promoting sustainable development. The Project is expected to be in line with host-country specific CDM requirements because of:

- It will reduce greenhouse gas emissions compared to a business-as-usual scenario;
- It will diversify power sources and mitigate the demand and supply contradiction;
- It will help to stimulate the growth of the wind power industry, encourage and promote the technology progress and commercial popularization of grid-connected renewable power generation projects in China;
- It will reduce the emissions of other pollutants resulting from the power generation industry in China, compared to a business-as-usual scenario;
- It will create 20 employment opportunities for local community during the operation period of the Project and create several employment opportunities for local community during the construction period of the Project.

3.10 Local Stakeholder Consultation (130)

Prior to the publication of the PDD on the UNFCCC website, in Aug. 2009, the PP conducted a survey by distributing questionnaires to local residents near the project site. Totally, 34 copies of questionnaires had been distributed and 30 copies had been returned with 88% return rate.



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The results of this survey show that the interested stakeholders have a very good understanding of the Project, and agreed that the Project would create the employment opportunities and stipulate local economic development, although there were concerns about noise pollution and waste water discharge. PP will take effective measures to avoid or mitigate these potential environmental impacts. In conclusion, stakeholders are supportive of the Project's construction.

The collected questionnaires with responses from interested stakeholders are maintained by the PP and were presented to BVC for assessment during the site visit of the validation activity /36/.

The stakeholders have recognized the contribution of the Project to local environment and social economy. Their views were endorsed by the local stakeholders interviewed during the site visit of the validation activity.

During the on-site visit, BVC has conducted an interview with local stakeholder and confirms that the stakeholders affected had been invited in a transparent manner. The interview with the stakeholder and review of returned questionnaires shows that the summary of the comments received has been completely provided in the PDD and due account of the comments has been described in the PDD. BVC hereby confirms that the process of local stakeholder consultation is observed to be adequate.

☞ Complying with para.130VVM, BVC hereby confirms that the local stakeholder consultation was performed and the process of local stakeholder consultation is observed to be adequate. Project will be beneficial to the local sustainable development without negative affect on the local stakeholders.

3.11 Environmental Impacts (133)

The PP have undertaken an analysis of environmental impacts and BVC confirms that the Environmental Impact Assessment was carried out by the qualified entity, and approved by the Environmental Protection Bureau of Liaoning Province on 30/03/2009 (Code: No.LHSB [2009] No.11)/7/.

The environmental impact caused by the Project has been identified and analyzed in the PDD. By checking the EIA report, BVC is able to ensure that the environment impact is caused by waste water, dust and exhaust gas, noise pollution, solid waste, and ecological deterioration. All above impacts would be controlled effectively by implementing corresponding mitigation measures as per the statement of the EIA.

☞ Complying with para.133/VVM, BVC hereby confirms that the Project will not have any significant impacts on the environment by means of measures of pollution avoidance and control as well as ecological recovery.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Validation of CDM projects, the DOE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

☞ Complying with para.173/VVM, BVC published the project documents on the UNFCCC CDM website on 28/07/2010 and invited comments prior to 26/08/2010 by Parties, stakeholders and non-governmental organizations /37/.

No comments were received during this period.



5 VALIDATION OPINION

Bureau Veritas Certification has performed the validation of Liaoning Xidayingzi Wind Farm Project in P. R. China. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site visit and interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Project participants used the latest *Tool for demonstration and assessment of additionality* (version 05.2), *VVM version 1.2* and *Guidelines on the demonstration and assessment of prior consideration of the CDM (version 03)* to demonstrate the additionality of the Project. In line with this tool, the PDD provides analysis of investment barriers to determine that the project activity itself is not the baseline scenario. The latest *Tool to calculate the emission factor for an electricity system* (version 02) is also applied to determine the emission factor of Northeast China Power Grid.

By synthetic description of the project, the Project is likely to result in reductions of GHG emissions partially. An analysis of the investment demonstrates that the Project is not a plausible baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the Project is implemented and maintained as designed, the Project is expected to achieve the average annual emission reductions of 107,236tCO₂e over the chosen 7-year renewable crediting period.

The review of the project design documentation (version 02) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of Liaoning Xidayingzi Wind Farm Project as CDM project activity.



6 REFERENCES

Category 1 Documents:

Documents provided by Fuxin Huashun Wind Power Co., Ltd. that relate directly to the GHG components of the project.

/1/	PDD version 01 dated 30/06/2010, the version for GSP (Global Stakeholders Process)
/2/	PDD version 02 dated 01/12/2010
/3/	LoA from DNA of China (Host country) in March 2010
/4/	LoA from DNA of Netherlands (Annex I party) dated 29/11/2010 (2010ANL.408)
/5/	Feasible Study Report (FSR) completed by Liaoning Electric Power Exploration & Design Power Design Institute in March, 2009
/6/	Feasibility Study Report (FSR) approved by Development and Reform Commission (DRC) of Liaoning Province on 28/07/2009 (Code: Liao Fa Gai Neng Yuan [2009] No. 718).
/7/	Environment Impact Assessment (EIA) approved by Environmental Protection Bureau of Liaoning Province on 30/03/2009 (Code: No. LHSB [2009] No.11)
/8/	Renewable Energy Law issued by NDRC of China effective from 01/01/2006. http://www.gov.cn/flfg/2005-06/21/content_8275.htm
/9/	Notification on Determining Baseline Emission Factor of China's Grid dated 02/07/2009 http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2333.pdf
/10/	Board decision on the investment in the Project made on 15/06/2009
/11/	Construction permission issued on 02/09/2009
/12/	Wind Turbine Generator and Tower Purchase Agreement signed between the PP and manufacturer on 20/08/2009
/13/	Main Transformer Purchase Contract signed in Sep, 2009
/14/	Civil Engineering Contract signed on 15/08/2009
/15/	Emission Reductions Purchase Agreement signed on 29/09/2009
/16/	The notification for the prior consideration of the CDM sent to China DNA on 21/12/2009
/17/	The notification for the prior consideration of the CDM sent to the UNFCCC Secretariat on 17/12/2009
/18/	Notice on Strictly Prohibiting the Installation of Thermal Generators with the Capacity of 135MW or below issued by the General Office of the State Council,

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	Decree No. 2002-6. http://www.gov.cn/gongbao/content/2002/content_61480.htm
/19/	Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects
/20/	Enterprise Income Tax Law Implementation Regulations of People's Republic of China (The People's Republic of China State Council Order No. 512 issued on 6 th Dec 2007)
/21/	China Wind Power Report 2008 published by China Environmental Science Press in Oct. 2008
/22/	Tariff approval for Liaoning Province by NDRC on 28/05/2003 (Code:Fa Gai Jia Ge[2003]No.424) http://www.fc110.gov.cn/zcfg/dffq/200909/15100.html
/23/	Tariff notification for wind power projects in China published by NDRC on 03/12/2007 (Document No. Fa Gai Jia Ge [2007] No. 3303) http://www.gov.cn/zwgk/2008-02/19/content_892937.htm
/24/	Tariff notification for wind power projects in China published by NDRC on 23/07/2008 (Document No. Fa Gai Jia Ge [2008] No. 1876) http://jgs.ndrc.gov.cn/zcfg/t20080813_230722.htm
/25/	Tariff notification for wind power projects in China published by NDRC on 20/07/2009 (Document No. Fa Gai Jia Ge[2009] No.1906)
/26/	The Codes on Compiling Feasibility Study Report of Wind Farms issued by National Development Reform Committee (NDRC).
/27/	"Economic Evaluation Method and Parameters for Project Construction" (version 3)
/28/	Interest rate information from the People's Bank of China http://www.pbc.gov.cn/detail.asp?col=460&ID=2483
/29/	IRR calculation spreadsheet of the Project
/30/	Bank Loan Contracts
/31/	Notice of Value added Tax Policy Regarding Products Using Certain Synthesized Resources ([2008]156) released by State Administration of Taxation on Dec 9 th , 2008
/32/	Income Tax Law of China
/33/	Notice about National Value-Added Tax Reform and Transition ([2008]170) released by State Administration of Taxation in Dec. 2008 http://www.chinatax.gov.cn/n8136506/n8136593/n8137537/n8138502/8745403.html
/34/	Notice of National Council Issued about the Power System of Organization



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	Reform Programme (National issued [2002] No.5)
/35/	Statistics of wind power installed capacity in China (2007) (2008)(2009)
/36/	Evidence of stakeholder survey questionnaires
/37/	PDD was uploaded for global public comments on 28/07/2010 http://cdm.unfccc.int/Projects/Validation/DB/ICSM9SM16URIKAJ7WA6L1YUPYLO4PE/view.html
/38/	China Statistical Yearbook 2007 (http://www.stats.gov.cn/tjsj/ndsj/2007/indexch.htm).
/39/	Wage Standard Information in China http://news.163.com/10/0609/20/68OV773V000146BC.html http://www.chinadaily.com.cn/hqci/2007-09/03/content_6075777.htm
/40/	Tentative Measures for the Administration of Renewable Energy Power Price and Cost-sharing issued by NDRC on 04/01/2006 (Code: Fa Gai Jia Ge [2006] No.7) http://www.gov.cn/ztl/2006-01/20/content_165910.htm
/41/	Information note on the highest tariffs applied by the executive board in its decisions on registration of projects in the People's Republic of China version 01, (EB54 Para 53)

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/Ref-1/	Validation and Verification Manual Version 01.2 dated 30/07/2010
/Ref-2/	ACM0002 version 12.1.0 dated 26/11/2010
/Ref-3/	Tool to calculate the emission factor for an electricity system Version 02 dated 16/10/2009
/Ref-4/	Tool for demonstration and assessment of additionality Version 05.2 dated 26/08/2008
/Ref-5/	Guidelines on the demonstration and assessment of prior consideration of the CDM Version 03 (Annex 22, EB49)
/Ref-6/	Glossary of CDM terms Version 05
/Ref-7/	Guidelines for the Reporting and Validation of Plant Load Factors version 01 (EB48, Annex11)
/Ref-8/	Guidelines on the assessment of investment analysis version 03.1 (EB51 Annex58)



/Ref-9/	Paragraph 54 of EB 38 dated 14/03/2008.
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Persons interviewed:

List persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

- | | | |
|------|-----------------|---|
| /1/. | Mr. Shoupeng Lv | Production Manager of the PP |
| /2/. | Mr. Xuanbin Pei | Facility Manager of the PP |
| /3/. | Ms. Lihong Liu | Administrative Assistant of the PP |
| /4/. | Mr. Shuyao Du | Assistant General Manager of the PP |
| /5/. | Ms. Hong Zhao | Project Assistant of the PP |
| /6/. | Mr. Qingyu Cui | Stakeholder, local resident near the Project site |
| /7/. | Mr. Shane Chen | Consultant |
| /8/. | Mr. Han Zhang | Consultant |



7 CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Ms. Li Yiting	BVC, China	<p>Team Leader, Climate Change Lead Verifier</p> <p>She holds a Master Degree in Environmental Science. Before joining BV in 2009, she gained two and a half years of CDM technical working experience in P.R China. She obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO 14001 and completed the course assessment for the ISO 14064:2006.</p>
Ms. Jing Li	BVC, China	<p>Team Member, Climate Change Verifier (Trainee)</p> <p>She holds a Master Degree in Environmental Management. Before joining BV in 2009, She acquired professional experience in climate/renewable energy policy, U.S. wholesale power markets working for the leading consulting firm and international non-profit organization. Her expertise is market research and financial analysis, including asset valuation of independent power producers and renewable energy markets projection. She has obtained the certificates of CDM Lead Verifier, Lead Auditor for ISO 14001 and ISO 14064.</p>
Ms. Jasmine Tang	BVC, China	<p>Internal Reviewer, Climate Change Lead Verifier</p> <p>She holds a Master Degree in Environmental Engineering. Before joining BV in 2008, she gained two years of CDM technical working experience in P.R China. She obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO 14001 and ISO 14064.</p>

APPENDIX A: COMPANY CDM PROJECT VALIDATION PROTOCOL

TABLE 1 Validation Requirements Based on the Validation and Verification Manual 01.2 (EB55 Annex 01) and Methodology Version 12.1.0 - Consolidated Baseline Methodology for Grid-Connected Electricity Generation from Renewable Sources

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
1. Approval			China	Netherlands		
1.1. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval?	VVM	45	The Letter of Approval (LOA) from DNA of China has been provided and checked.	CAR-1: Letter of Approval from Netherlands should be provided. The LoA from Netherlands have already been provided. CAR-1 is closed.	CAR-1	OK
1.2. Does the letter of approval from DNA of each Party confirm that : (a) The Party is a Party of the Kyoto Protocol; (b) The participation is voluntary; (c) In the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country;	VVM	45	(a) P. R. China ratified the Kyoto Protocol on 30/08/2002, referring to http://maindb.unfccc.int/public/country.pl?country=CN (b) the participation is	(a) Netherlands ratified the Kyoto Protocol on 31/05/2002, referring to http://maindb.unfccc.int/public/country.pl?country=NL	Pending	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
(d) Refers to the precise proposed CDM project activity title in the PDD being submitted for registration			voluntary; (c). The Project contributes to the sustainable development; d) the project title is Liaoning Xidayingzi Wind Farm Project	(b),(c),(d) are pending on CAR-1 The LoA from Netherlands confirms that the participant is voluntary and refers to the precise CDM project title		
1.3. Is(are) the letter(s) of approval unconditional with respect to (1.2) above?	VVM	46	Yes. It is unconditional with respect to (1.2) above	Pending on CAR-1 Yes. it is unconditional.	Pending g	OK
1.4. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA)? Is the letter of approval valid for the proposed CDM project activity under validation?	VVM	47	The letter of approval was issued by the DNA of China (National Development and Reform Commission)	Pending on CAR-1. Yes. the LoA has been issued by the DNA of Netherlands.	Pending g	OK
1.5. Is there doubt with respect to the authenticity of the letter of approval? If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	No	No	OK	OK
2. Participation			Fuxin Huashun Wind Power Co., Ltd.	Energy Systems International B.V.		



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
2.1. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	In the PDD, Project Participant (PP) from host party is Fuxin Huashun Wind Power Co.,Ltd.	PP from Netherlands is Energy Systems International B.V.	OK	OK
2.2. Does the DOE have a contractual relationship with the project participants?	EB50	Ann 48	No	Yes.	OK	OK
2.3. Is the information in tabular form of section A.3 consistent with the contact details provided in Annex 1 of the PDD?	VVM	52	Yes	Yes.	OK	OK
2.4. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation?	VVM	52	Yes. LoA from DNA of China has been provided.	Pending on CAR-1 Yes. The PP has been approved by DNA of Netherlands.	Pending g	OK
2.5. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	No	No.	OK	OK
2.6. Has the approval of participation issued from the relevant DNA?	VVM	53	Yes. The approval of participation has been issued by the National Development and Reform Commission of China.	Pending on CAR-1 Yes. The approval of participation has been issued by Ministry of Housing, Spatial Planning and the	Pending g	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Environment		
3. Project design document					
3.1. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	Yes. Latest Version 03.2. per the GUIDELINES FOR COMPLETING CDM-PDD, CDM-NMB and CDM-NMM – Version 07 – 02/08/2008	OK	OK
3.2. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	Yes	OK	OK
3.3. Does the DOE conducted physical site visit to assess the Project? If the DOE does not undertake a physical site inspection, this should be appropriately justified.	VVM	62	Yes, the physical site visit was conducted by Ms. Yiting Li and Ms. Jing Li from 13/09/2010-14/09/2010, and personals interviewed are listed below: Mr. Shuyao Du. Assistant General Manager of PP Ms. Hong Zhao. Project Assistant of PP Mr. Shoupeng Lv. Production Manager of of PP Mr. Xuanbin Pei. Facility Manager of PP Ms. Lihong Liu. Administrative Assistant of the PP. Mr. Qingyu Cui. Local Stakeholder Mr. Shane Chen. Consultant from Energy Systems International Mr. Han Zhang. Consultant from Energy Systems International	OK	OK
3.4. In CDM-PDD section A.1	EB 41	Ann	Title: Liaoning Xidayingzi Wind Farm	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
-Title of project -Current version number and date of document		12	Project PDD Version number: 01, dated 30/06/2010 PDD submitted for registration: version 02 Date: 01/12/2010		
3.5. In CDM-PDD section A.2, are following provided?	EB 41	Ann 12			
3.5.1. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, project scenario and baseline scenario. Are there any changes/modifications compared to the web hosted PDD?	EB 41 - VVM	Ann 12 - 58 59 60	The Project involves the installation of 33 sets of wind turbines with a total capacity of 49.5 MW. The purpose of the Project is to supply an annual electricity generation of around 104,313MWh to Northeast China Grid (NEPG). There are no changes/modifications compared to the web hosted PDD. Since the Project is a new grid-connected wind power plant, the baseline scenario is the same as the scenario existing prior to the start of Project, which is equivalent amount of power provided by grid-connected power plants.	OK	OK
3.5.2. Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	No. It is a newly-built project.	OK	OK
3.5.3. Explanation on how the GHG emission	EB 41	Ann 12	Electricity generated from wind resource (renewable energy) will be delivered to	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
reductions effected.			NEPG, replacing the electricity supplied by grid-connected power plants (mostly fossil fuel fired). It is expected to achieve annual GHG emissions reductions of 107,236 tCO ₂ e.		
3.5.4. The PP's views on the contribution of project activity to sustainable development	EB 41	Ann 12	Yes. The contribution to sustainable development is included in Section A.2 of the PDD has been checked against the FSR.	OK	OK
3.6. In CDM-PDD section A.3, are following provided in the tabular format? - List of project participants and parties - Identification of Host Party - Indication whether the Party wishes to be considered as project participant	EB 41 VVM	Ann 12 51,52	Yes. Fuxin Huashun Wind Power Co.,Ltd. and Energy Systems International B.V. are the project participants. No party wishes to be considered as project participant	OK	OK
3.7. In CDM-PDD section A.4.1, are following provided?	EB 41	Ann 12			
3.7.1. Physical description, location, host party(ies) and address as required. Are there any changes/modifications compared to the web hosted PDD?	EB 41	Ann 12	The Project is located at Zhangwu County, Fuxin City, Liaoning Province, P.R. China.	OK	OK
3.7.2. Detailed physical location with unique identification of the project activity (e.g.	EB 41	Ann 12	Yes.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
Longitude/latitude)			The central geographical coordinates of the Project is 122°50'30" E and 42°34'30" N.		
3.8. In CDM-PDD section A.4.2, is the list of categories of project activities provided?	EB 41	Ann 12	Scope 1: Energy Industries (renewable sources)	OK	OK
3.9. In CDM-PDD section A.4.3, are following provided?	EB 41	Ann 12			
3.9.1. A description of how environmentally safe and sound technology, and know-how, is transferred to the Host Party(ies)	EB 41	Ann 12	The Project uses wind turbines manufactured by Dongfang Turbine Co., Ltd, and no technology is transferred to China.	OK	OK
3.9.2. Further explanation of purpose of project activity with scenario existing prior to the start of project, scope or present activities and the baseline scenario. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	<p>CL-1:</p> <p>Further explanation of purpose of the Project with scenario existing prior to the start of the Project, present activities and baseline scenario is required.</p> <p>Further explanation of the three scenarios above has been provided in the updated PDD. CL-1 is closed.</p>	CL-1	OK
3.9.3. List and arrangement of the main manufacturing/production technologies, systems and equipments involved. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	The Project involves the installation of 33 sets of wind turbines with each unit capacity of 1500 kW, which amounts to a total installed capacity of 49.5 MW. The operational hours are 2,107 h and the load factor is 24.06%.	CL-2	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			CL-2: The life span of main equipments should be indicated in the PDD. The life span of wind turbine generator is 20 years, which has been checked against purchase contract. CL-2 is closed.		
3.9.4. The emissions sources and GHGs involved. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	Yes. To reduce greenhouse gas emissions of CO ₂ produced in NEPG. There are no changes compared to the web hosted PDD.	OK	OK
3.10. In CDM-PDD section A.4.4, is the estimation of emission reductions provided as requested in a tabular format?	EB 41	Ann 12	Renewable crediting period was selected and annual emission reductions are provided in a tabular format.	OK	OK
3.11. In CDM-PDD section A.4.5, is information regarding public funding provided?	EB 41	Ann 12	Yes. There is no public funding from Annex I Parties for this project.	OK	OK
3.12. In CDM-PDD section (Baseline identification)	EB 41	Ann 12			
3.12.1. The approved methodology and version number	EB 41 VVM	Ann 12 70	The approved methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 12.1.0) has been applied in the PDD version 02 (ACM0002 version 11 was used in the PDD version 01 uploaded for GSP)	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			As required by ACM0002, "Tool to calculate the emission factor for an electricity system" (version 02) and "Tool for the demonstration and assessment of additionality" (Version 5.2) have been applied.		
3.12.2. Are the following applicability conditions of the methodology ACM0002 met?	VVM	71			
3.12.2.1. This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plants); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	ACM	0002	The Project is a grid-connected newly built wind power project, which is considered as a Greenfield plant.	OK	OK
3.12.2.2. The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit	ACM	0002	The Project is the installation of a wind power plant.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.12.2.3. In the case of capacity additions, retrofits or replacements: the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	ACM	0002	N/A	OK	OK
3.12.2.4. In case of hydro power plants, one of the following conditions must apply: <ul style="list-style-type: none"> - The project activity is implemented in an existing reservoir, with no change in the volume of reservoir; or - The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m²; or - The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m². 	ACM	0002	N/A	OK	OK
3.12.2.5. The methodology is not applicable to the following conditions. Please confirm	ACM	0002	The Project is a newly built wind farm, which does not involve fuel switching.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<ul style="list-style-type: none"> Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity Biomass fired power plants; Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the power plant is less than 4 W/m². 					
3.13. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity? Does the delineation of the project boundary include identification of all locations, processes and equipment including secondary equipment and associated processes such as logistics etc. Have changes been made to the project boundary in comparison to the web hosted PDD? If yes, please comment on the reason for the changes.	VVM	78 79	In the PDD B.3, the Project boundary is clearly identified, which includes the physical, geographical site of the Project and all power plants physically connected to the Northeast China Grid that the Project is connected to. This is in line with the delineation of grid boundaries as provided by the DNA of China. The defined project boundary is in line with ACM0002. All emission sources and GHGs have been included in the project boundary.	OK	OK
3.14. In CDM-PDD section B.3, are following provided? (a) Description of all sources and gases included in the project boundary in the table (b) A flow diagram of the project boundary physically delineating the project activity with all equipments, systems and flows of mass and energy etc	VVM EB 41	80 Ann 12	<p>Yes The baseline scenario only comprises the CO₂ emissions. No CO₂ emissions are considered for the Project.</p> <p>A flow diagram of the project boundary is provided in the PDD</p>	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.15. Is an explanation how the most plausible baseline scenario is identified in accordance with the selected baseline methodology is provided in CDM-PDD section B.4?	EB 41	Ann 12	Not applicable. Methodology ACM0002 prescribes the baseline scenario and no further analysis required, thus there is no need to take steps to identify the baseline scenarios.	OK	OK
3.15.1. If the project activity is the install a new grid-connected renewable power plant/unit (greenfield plant), is the baseline scenario identified appropriately in accordance with the ACM0002 Ver.12.1.0?	ACM	0002	Yes. The baseline scenario has been identified directly in ACM0002.	OK	OK
3.15.2. If the project activity is a capacity addition to existing grid-connected renewable power plant/unit, is the baseline scenario identified appropriately in accordance with the ACM0002 Ver.12.1.0 and the point of time at which the generation facility would likely be replaced or retrofitted (DATE Baseline Retrofit) defined reasonably?	ACM	0002	N/A	OK	OK
3.15.3. If the project activity is the retrofit or replacement of existing grid-connected renewable power plant/unit, is the baseline scenario identified following step-wise procedure in accordance with the ACM0002 Ver.12.1.0?	ACM	0002	N/A	OK	OK
3.15.3.1. Are the realistic and credible alternative baseline scenarios for power generation	ACM	0002	N/A	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
appropriately identified following the Step 1 of the “Combined tool to identify the baseline scenario and demonstrate additionality”? (Step 1)					
3.15.3.2. Are the realistic and credible alternative baseline scenarios i.e. P1, P2 and P3 appropriately applied Barrier analysis following the Step 2 of the “Combined tool to identify the baseline scenario and demonstrate additionality”? (Step 2)	ACM	0002	N/A	OK	OK
3.15.3.3. If more than one alternative is remaining after Step 2, is Investment analysis appropriately applied (apply an Investment Comparison as per step 3 of the “Combined tool to identify the baseline scenario and demonstrate additionality” or a Benchmark Analysis as per step 2b of the “Tool for the demonstration and assessment of additionality”)? (Step 3)	ACM	0002	N/A	OK	OK
3.16. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	81	Yes. The baseline scenario is clearly identified in section B.4 of the PDD in accordance with ACM0002 (version 12.1.0).	OK	OK
3.17. Has any procedure contained in the methodology	VVM	82	The methodology ACM0002 prescribes the baseline scenario and no further analysis is	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
to identify the most reasonable baseline scenario, been correctly applied?			required to identify the baseline scenario.		
3.18. Does the selected methodology require use of tools (such as the “Tool for the demonstration and assessment of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario?	VVM	82	N/A	OK	OK
3.19. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	No.	OK	OK
3.20. Are the documents and sources referred to in the PDD correctly quoted and interpreted and are they crosschecked with other verifiable and credible sources, such as local expert opinion, if available?	VVM	84	N/A.	OK	OK
3.21. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	N/A.	OK	OK
3.22. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85	N/A.	OK	OK
3.23. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be	VVM	86	Yes. Baseline scenario is clearly described in B.4 section of the PDD, which is the	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
employed and/or the activities that would take place in the absence of the proposed CDM project activity?			equivalent amount of electricity supplied by grid-connected power plants.		
3.24. In CDM-PDD section B.5, are following provided?	EB 41	Ann 12			
3.24.1. Explanation and Justification of how and why this project activity is additional and therefore not the baseline scenario in accordance with the selected baseline methodology	EB 41	Ann 12	Yes. The steps from “Tool for the demonstration and assessment of additionality (version 05.2)” have been followed.	OK	OK
3.24.2. Has the latest version of the “Tool for the demonstration and assessment of additionality” been used?	ACM	0002	Yes. “Tool for the demonstration and assessment of additionality” (version 5.2) has been used.	OK	OK
3.24.3. Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation	EB 41	Ann 12	The date when Civil Engineering Contract was signed (15/08/2009) is identified as the project start date, which is the earliest of the dates at which the implementation or construction or real action of the Project began. This is prior to the PDD uploaded for global stakeholder comments on 28/07/2010. The PP informed DNA of China and UNFCCC secretariat on of its intention to seek CDM support on 21/12/2009 and 17/12/2009 respectively, within six months of the project start date. Hence, CDM was seriously considered in the decision to proceed with the Project.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.25. In CDM-PDD section B.6.1, are following provided? (Algorithms and/or formulae used to determine emission reductions)	EB 41	Ann 12			
3.25.1. Explanation how the procedures, in the approved methodology to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity	EB 41	Ann 12	Complying with ACM0002, the “ <i>Tool to calculate the emission factor for an electricity system</i> ” ver. 02 is used in the PDD. (referred to as “ Tool-Grid EF ” in the report).	OK	OK
3.25.2. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring methodology?	VVM	89			
3.25.2.1. Are the Project emissions appropriately calculated?	ACM	0002	Yes, as per methodology, for wind power project, project emissions are equal to zero.	OK	OK
3.25.2.2. Are the Baseline emissions appropriately calculated specifically for (a) greenfield plants or (b) retrofit and replacements or (c) capacity additions?	ACM	0002	Yes. The Project is a Greenfield wind power plant. $EG_{PJ,y} = EG_{facility,y}$	OK	OK
3.25.2.3. Are the Leakage appropriately calculated?	ACM	0002	Yes, as per methodology, no leakage emissions are considered.	OK	OK
3.25.2.4. Are the Emission reductions appropriately calculated?	ACM	0002	Yes.	OK	OK
3.25.3. Have the equations and parameters in the PDD been correctly applied with respect those in the	VVM	90	Yes. The steps and equations applied are	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
select approved methodology?			consistent with the Tool and ACM0002.		
3.25.4. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	Options in step 1, 2, 3 and 4 are used for OM factor determination.	OK	OK
3.25.5. If yes, has adequate justification been provided and correct equations and parameters been used in accordance with the methodology selected?	VVM	90	Yes.	OK	OK
3.25.6. If data and parameters will not be monitored throughout the crediting period of the proposed CDM project activity but have already been determined and will remain fixed throughout the crediting period, - All data sources and assumptions are appropriate - Calculations are correct - Be applicable to the proposed CDM project activity - Will result in a conservative estimate of the emission reductions.	VVM	91	The emission factor is determined ex ante for the Project.	OK	OK
3.25.7. If data and parameters will be monitored on implementation and hence become available only after validation of the project activity, are the estimates provided in the PDD for these data and parameters are reasonable?	VVM	91	N/A	OK	OK
3.25.8. A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting	EB 41	Ann 12	Yes. The essential official data of power grid published by NDRC is available during	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
period and that are available when validation is undertaken			validation.		
3.25.9. Explanation and justification for the choice of the source of data	EB 41	Ann 12	Yes. The explanation and justification for the choice of the source of data are consistent with the official data issued on 02/07/2009 by Chinese DNA. (Referred to as " Notification of China Grid EF " in the report). The official data i.e. Notification of China Grid EF were based on the data of China Energy Statistical Yearbook and China Power Yearbook, and authorities' expertise.	OK	OK
3.25.10. Clear and transparent references or additional documentation in Annex 3	EB 41	Ann 12	Yes. Detailed references listed in Annex 3 are consistent with the official data issued by Chinese DNA.	OK	OK
3.25.11. Where values have been measured, a description of the measurement methods and procedures (e.g. which standards have been used), indicated the responsible person/entity having undertaken the measurement, the date of measurement(s) and the measurement results	EB 41	Ann 12	It is not applicable in this case as the emission factor is determined ex-ante as per the options in ACM0002.	OK	OK
3.26. In CDM-PDD section B.6.3, are following provided?	EB 41	Ann 12			
3.26.1.A transparent ex ante calculation of project	EB 41	Ann	Yes.	OK	OK



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emissions, baseline emissions (or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the approved methodology		12	Baseline emissions are calculated by multiplying the emission factor by the amount of net electricity delivered to the grid. Project emissions and leakage emissions are considered to be zero.		
3.26.2. Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 41	Ann 12	Yes. The spreadsheets are used.	OK	OK
3.26.3. Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 41	Ann 12	Yes The calculation process of Emission Factor of Northeast China Power Grid has been provided in Annex 3 of PDD.	OK	OK
3.27. In CDM-PDD section B.6.4 are, the results of the ex ante estimation of emission reductions for all years of the crediting period, provided in a tabular format?	EB 41	Ann 12	Yes.	OK	OK
3.28. In CDM-PDD section B.7.1, are following provided?	EB 41	Ann 12			
3.28.1. Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 41	Ann 12	Specific information regarding the parameter $EG_{PJtoGrid,y}$ (Quantity of electricity exported to the grid in year y) and $EG_{GridtoPJ,y}$ (Quantity of electricity imported from the grid in year y) has been provided. CL-3:	CL-3	OK



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			<p>The parameter measuring net quantity of electricity supplied to the grid (EG_{facility,y}) should be included as well.</p> <p>The parameter (EG_{facility,y}) is included in the updated monitoring plan. CL-3 is closed.</p>		
3.28.2. For each parameter the following below information, using the table provided:	EB 41	Ann 12			
3.28.2.1. The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where several sources may be used, explain and justify which data sources should be preferred.	EB 41	Ann 12	<p>The data regarding electricity amounts is measured by meters, and no other external sources of data should be used.</p> <p>Pending on CL-3</p> <p>The parameter (EG_{facility,y}) is included in the updated monitoring plan.</p>	Pending	OK
3.28.2.2. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, how the measurement is undertaken: (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment.	EB 41	Ann 12	<p>The electricity exported to the grid and electricity imported from the grid will be continuously measured and monthly recorded. The data will be archived electronically for 2 years following the end of the last crediting period.</p> <p>The recorded data of electricity will be cross checked against power sale receipts.</p> <p>Pending on CL-3</p> <p>The parameter (EG_{facility,y}) is included in the updated monitoring plan.</p>	Pending	OK



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3.29. In CDM-PDD section B.7.2, is a detailed description of the monitoring plan provided?	EB 41	Ann 12	Yes.	OK	OK
3.29.1. A detailed description of the monitoring plan	EB 41	Ann 12	Yes.	OK	OK
3.29.2. The operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity	EB 41	Ann 12	The team regarding monitoring system was set up by the PP.	OK	OK
3.29.3. The responsibilities for and institutional arrangements for data collection and archiving	EB 41	Ann 12	The responsibilities of data collection and archiving have been assigned to different people.	OK	OK
3.29.4. Indication that the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 41	Ann 12	Yes	OK	OK
3.29.5. Relevant further background information in Annex 4	EB 41	Ann 12	There is no further background information in Annex 4.	OK	OK
3.30. Are all data monitored as per monitoring methodology?	ACM	0002	Pending on CL-3 The parameter (EG _{facility,y}) is included in the updated monitoring plan.	Pending	OK
3.31. Are all data collected as part of monitoring archived electronically and kept at least for 2 years after the end of the last crediting period?	ACM	0002	Yes.	OK	OK
3.32. In CDM-PDD section B.8, are following provided?	EB 41	Ann 12			
3.32.1. Date of completion of the application of the	EB 41	Ann	Yes.	OK	OK



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methodology to the project activity study in DD/MM/YYYY		12	30/06/2010 in PDD version 01 and 01/12/2010 in PDD version 02.		
3.32.2. Contact information of the person(s)/entity(ies) responsible for the application of the baseline and monitoring methodology to the project activity	EB 41	Ann 12	Yes. The contact information of Energy Systems International is provided.	OK	OK
3.32.3. Indication if the person/entity is also a project participant listed in Annex 1	EB 41	Ann 12	Energy Systems International is not project participant in Annex 1.	OK	OK
3.33. In CDM-PDD section C.1.1, are following provided?	EB 41	Ann 12			
3.33.1. Is the project's starting date clearly defined and evidenced?	EB 41	Ann 12	Yes. 15/08/2009 (the signed date of civil engineering contract) is the earliest of the dates at which the implementation or construction or real action of the Project began.	OK	OK
3.34. In CDM-PDD section D., are the conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the Host Party, if environmental impacts are considered significant by the project participants or the Host, provided?	EB 41	Ann 12	Environmental impact is not considered significant in the PDD. Supporting documents, such as the approved environmental impact assessment report have been provided and checked.	OK	OK
3.35. In CDM-PDD section E.1, are the following provided?	EB 41	Ann 12			



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.35.1. The process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted.	EB 41	Ann 12	In August 2009, the PP conducted a public survey for the project by distributing questionnaires to local stakeholders. Stakeholder survey questionnaires have been presented and checked.	OK	OK
3.35.2. The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	EB 41	Ann 12	Yes. Questionnaires describing the Project have been sent to local stakeholders.	OK	OK
3.35.3. The local stakeholder process has been, completed before submitting the proposed project activity to the DOE for validation.	EB 41	Ann 12	Yes. The local stakeholder survey was conducted in August, 2009, prior to the date of uploading PDD for GSP (28/07/2010).	OK	OK
3.36. In CDM-PDD section E.2, are following provided?	EB 41	Ann 12			
3.36.1. Identification of local stakeholders that have made comments	EB 41	Ann 12	Yes. Local residents living near the Project site.	OK	OK
3.36.2. A summary of these comments.	EB 41	Ann 12	Yes. The stakeholders believe the Project will create employment opportunities and improve local living standard, while concerns are raised about waste water and	OK	OK



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			noise pollution.		
3.37. In CDM-PDD section E.3 is the explanation of how due account have been taken of comments received from local stakeholders provided?	EB 41	Ann 12	Yes. The PP has taken into account the comments and suggestions from local stakeholders and will take measures to preserve the environment.	OK	OK
3.38. In CDM-PDD Annex 1, are the following provided?	EB 41	Ann 12			
3.38.1. Contact information of project participants	EB 41	Ann 12	Yes.	OK	OK
3.38.2. For each organization listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 41	Ann 12	Yes.	OK	OK
3.39. In CDM-PDD Annex 2, is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 41	Ann 12	Yes. No public funding is provided for the Project.	OK	OK
3.40. In CDM-PDD Annex 3, is the background information used in the application of the baseline methodology provided?	EB 41	Ann 12	Yes.	OK	OK
3.41. In CDM-PDD Annex 4, is the background information used in the application of the	EB 41	Ann 12	Yes.	OK	OK



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monitoring methodology provided?					
4. Additionality of a project activity					
4.1. General checklist for additionality					
4.1.1. Does the CDM-PDD state the latest version of the additionality tool being used?	VVM	95	Yes. The approved "Tool for the Demonstration and Assessment of Additionality" version 05.2 is used in the PDD.	OK	OK
4.1.2. Were the steps taken of the "Tool for the Demonstration and Assessment of Additionality" to assess additionality used:	EB 39	Ann 10	Yes. Step 1-identification of alternatives of the project activity, Step 2-Investment analysis (Step 3 -Barrier analysis is not used) Step 4-common practice analysis	OK	OK
4.1.3. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10			
4.1.3.1. The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes.	OK	OK



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4.1.3.2. Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	N/A	OK	OK
4.1.3.3. If applicable, continuation of the current situation.	EB 39	Ann 10	Yes. Equivalent electricity service provided by the grid-connected power plants.	OK	OK
4.1.4. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly?	EB 39	Ann 10	Yes.	OK	OK
4.1.5. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution, and outcome of Step 1b is thus concluded?	EB 39	Ann 10	Yes.	OK	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.1.6. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	N/A.	OK	OK
4.1.7. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	Only step 2 has been applied.	OK	OK
4.1.8. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10	Yes. Four sub-steps have been followed.	OK	OK
4.1.9. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10			
4.1.9.1. Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	It is considered not applicable to the Project since the Project generates economic benefits through the sales of electricity other than CDM related income.	OK	OK
4.1.9.2. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Yes. The benchmark analysis (Option III) is adopted.	OK	OK



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4.1.10. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	N/A.	OK	OK
4.1.11. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	N/A.	OK	OK
4.1.12. Has the most suitable benchmark for the project been determined in Sub-step 2b?	EB 39	Ann 10			
4.1.12.1. Which source shall the discount rates and benchmarks derived from?	EB 39	Ann 10	The benchmark of 8% (post tax IRR) is derived from "Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects".	OK	OK
4.1.13. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10			



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4.1.13.1. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	The Project IRR (post-tax) was calculated,	OK	OK
4.1.13.2. Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 39	Ann 10	Yes, the IRR calculation sheet has been provided to BVC.	OK	OK
4.1.13.3. Justify and/or cite assumptions.	EB 39	Ann 10	Yes.	OK	OK
4.1.13.4. In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	Yes, relevant costs are included.	OK	OK



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4.1.13.5. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	Not applicable as Option III is used.	OK	OK
4.1.13.6. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity.	EB 39	Ann 10	Option III is used, and the calculated IRR is 6.43%, lower than the benchmark of 8%. Pending on CL-5 and CL-6 CL-5 and CL-6 have been closed, and IRR is confirmed to be 6.43%.	Pending g	OK
4.1.13.7. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	No.	OK	OK
4.1.13.8. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	The project IRR calculation reflects the period of expected operation of the project activity (one year for construction period and 20 years for operational period), which is in accordance with the FSR.	OK	OK
4.1.13.9. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	Yes.	OK	OK



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4.1.13.10. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	Yes. The assessment period of 21 years is appropriate, including 1-year of construction period and 20-year of operational period, which is in accordance with the FSR.	OK	OK
4.1.13.11. Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	Yes, the rate of residual value is 5%.	OK	OK
4.1.13.12. Does the depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, be added back to net profits for the purpose of calculating the financial indicator?	EB 51	Ann 58	Yes, the depreciation, which has been deducted in estimating gross profits on which tax is calculated, is added back to net profits for the purpose of calculating the IRR.	OK	OK
4.1.13.13. If the project activity was ceased after the commencement and where implementation is recommenced due to consideration of the CDM, can the investment analysis reflect the economic decision making context at point of the decision to recommence the project?	EB 51	Ann 58	N/A	OK	OK



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<p>4.1.13.14. Is pre-tax benchmark or post tax benchmark applied in the investment analysis? If a post tax benchmark is applied, is the actual interest payable taken into account in the calculation of income tax?</p> <p>If yes, is the interest calculated according to the prevailing commercial interest rate in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years.</p>	EB 51	Ann 58	<p>Post tax benchmark is applied in the investment analysis. Interest is consistent with the prevailing commercial interest rate (5.94%), obtained from public source (The People's Bank of China).</p> <p>Furthermore, loan contracts provided by the PP show that the Project enjoys 10% discount on interest rate. Hence, interest rate applied in the investment analysis (5.94%) is greater than the actual interest rate, which results in higher project IRR. Hence, the value of interest rate (5.94%) assumed in FSR/PDD is conservative.</p> <p>In addition, the actual loan granted in contracts (300 million RMB) is close to the loan value assumed in the FSR (336 million RMB). Through comparison, IRR calculation is more conservative by applying the value (336 million RMB) from FSR.</p>	OK	OK



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4.1.14. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	Yes. Four key indicators are identified for sensitivity analysis of the Project, including Total investment, Annual O&M costs, Tariff, and Power generation with a variation range from -10% ~ +10%. Pending on CL-8 When total project cost decreases by 11.50%, O&M expenses decrease by 55.60%, quantity of supplied electricity or tariff increases by 11.90%, the IRR would rise to the benchmark of 8%. As analyzed in the PDD, the possibility is very low.	Pending	OK
4.1.15. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	Yes.	OK	OK
4.1.16. Have the barrier analysis been conducted?	EB 39	Ann 10	No barrier analysis was conducted, which complies with the requirement of Tool.	OK	OK
4.1.17. In step 4: Common practice analysis has all the sub-steps as below followed?	EB 39	Ann 10			
4.1.17.1. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. Provide documented	EB 39	Ann 10	CL-4 Other activities similar to the Project should be identified and analyzed based on credible resources. According to <i>Statistics of wind power installed capacity in China</i>	CL-4	OK



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evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.			(2007)(2008)(2009), no similar activity is identified. CL-4 is closed.		
4.1.17.2. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring?	EB 39	Ann 10	Pending on CL-4	Pending	OK
4.1.18. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	Pending on CL-4	Pending	OK
4.2. Prior consideration of the clean development mechanism					
4.2.1. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	The project start date (15/08/2009) is prior to the date of PDD publication for stakeholder comments (28/07/2010).	OK	OK
4.2.2. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	The notifications for prior consideration of CDM benefits were sent to DNA of China and UNFCCC secretariat on 21/12/2009 and 17/12/2009 respectively.	OK	OK
4.2.3. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction	VVM	99	The date when Civil Engineering Contract was signed (15/08/2009) is identified as the project start date, which is the earliest of the dates at which the implementation or construction or real action of the Project began.	OK	OK



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or real action of a project activity begins”?					
4.2.4. Does the project activity require construction, retrofit or other modifications?	VVM	99	Yes, the Project requires construction.	OK	OK
4.2.5. Is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	Yes.	OK	OK
4.2.6. Is it a new project activity (project activities with starting date on or after 02 August 2008) or an existing project activity (project activities with a start date before 02 August 2008)?	VVM	100	The project start date is 15/08/2009, thus it is a new project activity	OK	OK
4.2.7. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the Executive Board before the project activity start date, had the PP informed the Host Party DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status?	VVM	101	The notifications for prior consideration of CDM benefits were sent to DNA of China and UNFCCC secretariat on 21/12/2009 and 17/12/2009 respectively, within six months of project start date.	OK	OK
4.2.8. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	N/A	OK	OK
4.2.8.1. Evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a	VVM	102	N/A	OK	OK



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decisive factor in the decision to proceed with the project,					
4.2.8.2. Reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	N/A	OK	OK
4.3. Identification of alternatives					
4.3.1. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	Yes. The methodology ACM0002 version 12.1.0 prescribes the baseline scenario and no further analysis is required.	OK	OK
4.3.2. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	Not applicable	OK	OK
4.3.3. Does the list of alternatives given in the PDD ensure that: - One of the options that the project activity is undertaken without being registered as a proposed CDM project activity - The list contains all plausible alternatives - The alternatives comply with all applicable and enforced legislation	VVM	106	N/A. As the approved methodology ACM0002 selected by the proposed CDM project activity prescribes the baseline scenario and no further analysis is required.	OK	OK



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4.4. Investment analysis					
4.4.1. If investment analysis has been used to demonstrate the additionality of the proposed CDM project activity, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108			
4.4.1.1. The most economically or financially attractive alternative?	VVM	108	N/A	OK	OK
4.4.1.2. Economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108	The Project IRR is calculated to be 6.43% without CDM revenues, lower than the benchmark of 8%. Pending on CL-5, and CL-6. CL-5 and CL-6 are closed, and project IRR is confirmed to be 6.43%.	Pending	OK
4.4.2. Was this shown by one of the following approaches?	VVM	109			
4.4.2.1. Demonstrate that the proposed CDM project activity would produce no financial or economic benefits other than CDM-related income.	VVM	109	Not applicable.	OK	OK
4.4.2.2. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	Not applicable.	OK	OK
4.4.2.3. The financial returns of the proposed CDM	VVM	109	Yes.	OK	OK



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project activity would be insufficient to justify the required investment.					
4.4.3. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	<p>CL-5 The suitability of total project cost in the investment analysis requires the justification.</p> <p>The total project cost is sourced from approved FSR. In addition, the total value of signed contracts accounts for more than 90% of the value from FSR. CL-5 is closed.</p> <p>CL-6 The social welfare rate of 57% should be justified.</p> <p>The social welfare rate of 57% falls in the reasonable range according to relevant policies in China. CL-6 is closed.</p> <p>CL-7 Please include other financial parameters, including annual O&M costs, VAT, debt equity ratio in the PDD. Other financial parameters have been included in the updated PDD. CL-7 is closed.</p>	CL-5 CL-6 CL-7	OK



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4.4.4. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur and the likelihood of these conditions assessed?	VVM	111	<p>CL-8</p> <p>The sensitivity analysis regarding whether the IRR will reach benchmark under certain situations should be presented in a more transparent way in the IRR spreadsheet. The likelihood for O&M expenses requires further assessment.</p> <p>When total project cost decreases by 11.5%, O&M expenses decrease by 55.6%, quantity of supplied electricity or tariff increases by 11.9%, the IRR would rise to the benchmark of 8%. The relevant information has been provided in the IRR spreadsheet.</p> <p>CL-8 is closed.</p>	CL-8	OK
4.4.5. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by: <ol style="list-style-type: none"> Assessing previous investment decisions by the project participants involved, and Determining whether the same benchmark has been applied, or Determining if there are verifiable circumstances that have led to a change in the benchmark 	VVM	112	Yes.	OK	



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4.4.6. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities?	VVM	113	Yes. Feasibility Study Reports (FSR) was approved by Development and Reform Commission of Liaoning Province on 28/07/2009 (Liao Fa Gai Neng Yuan [2009]718)	OK	OK
4.4.7. If yes: (EB38 para.54)	VVM	113			
4.4.7.1. Has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	CL-9 A detailed timeline of major actions/events associated with the implementation of the Project, including the finalization of FSR, investment decision, and PDD uploaded for GSP should be presented. A detailed timeline is provided in the updated PDD. CL-9 is closed.	CL-9	OK
4.4.7.2. Are the values used in the PDD and associated annexes fully consistent with the FSR? If not, was the appropriateness of the values validated?	VVM	113	Yes.	OK	OK
4.4.7.3. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	CL-10 Please clarify whether the tariff of 0.61 RMB/kWh (incl VAT) in the FSR are valid and applicable at the time of investment decision.	CL-10	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			When the investment decision was made on 15/06/2009, the tariff of 0.61 RMB/kWh (incl VAT) was in compliance with available governmental approvals (Fai Gai Jia Ge [2007]3303 and [2008]1876) and deemed to be appropriate. CL-10 is closed.		
4.5. Barrier analysis					
4.5.1. Has barrier analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	115	No.	OK	OK
4.5.2. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that: a. Prevent the implementation of this type of proposed CDM project activity? b. Do not prevent the implementation of at least one of the alternatives?	VVM	115	N/A.	OK	OK
4.6. Common practice analysis					
4.6.1. Is this a large-scale or first-of-its kind small-scale project activity?	VVM	119	The Project is a large scale project.	OK	OK
4.6.2. Was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate	VVM	119	Yes.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
additionality?					
4.6.3. Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologies the relevant region for assessment will be local and for others it may be trans-national /global.)	VVM	120	Liaoning province is selected as the geographical scope, because the Project is approved by the provincial government, and the tariff pricing guidance vary for different provinces.	OK	OK
4.6.4. Was a region other than the entire host country chosen?	VVM	120	Yes, Liaoning Province is chosen.	OK	OK
4.6.5. If yes, was the explanation why this region is more appropriate assessed?	VVM	120	Refer to 4.6.3	OK	OK
4.6.6. Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, and have been undertaken in the defined region?	VVM	120	Pending on CL-4 No similar activity to the Project is found.	Pending g	OK
4.6.7. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	120	Pending on CL-4 No similar activity to the Project is found.	Pending g	OK
4.6.8. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	Pending on CL-4 No similar activity to the Project is found.	Pending g	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5. Monitoring plan					
5.1. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	Yes.	OK	OK
5.2. Does the monitoring plan contain all necessary parameters?	VVM	123	Electricity supplied by the Project to the grid and Electricity imported by the Project from the grid will be monitored. Pending on CL-3	Pending	OK
5.3. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	Yes. In line with local practices in power sector	OK	OK
5.4. Are the means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified?	VVM	123	Yes.	OK	OK
6. Sustainable development					
6.1. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	Yes.	OK	OK
6.2. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable	VVM	126	Yes.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
development of the host Party?					
7. Local stakeholder consultation					
7.1. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	Yes. Local stakeholders were invited to comment on the Project in Aug, 2009, prior to the publication of the PDD on the UNFCCC website from 28/07/2010 to 26/08/2010.	OK	OK
7.2. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	Yes.	OK	OK
7.3. Is the summary of the comments received as provided in the PDD complete?	VVM	129	Yes.	OK	OK
7.4. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	PP has explained to local stakeholders that they will measures to control the waste water and noise pollution.	OK	OK
8. Environmental impacts					
8.1. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	Yes. Environmental Impact Assessment (EIA) report developed by Environmental Science Institute of Liaoning Province has been presented and checked.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
8.2. Have the project participants undertaken an analysis of environmental impacts?	VVM	132	Yes.	OK	OK
8.3. Does the host Party require an environmental impact assessment?	VVM	132	Yes.	OK	OK
8.4. If yes, have the environmental impact assessment approved by local government?	VVM	132	EIA report was approved by Environmental Protection Agency of Liaoning Province on 30/03/2009 (No.LHSB [2009] 11)	OK	OK



VALIDATION REPORT

TABLE 2 RESOLUTION OF CORRECTIVE ACTION AND CLARIFICATION REQUESTS

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CAR-1: Please provide LoA from DNA of Netherlands	1.1	The LoA has been submitted to the DOE.	The LoA from DNA of Netherlands has been provided and checked to be authentic. CAR-1 is closed.
CL-1: Further explanation of purpose of the Project with scenario existing prior to the start of the Project, present activities and baseline scenario is required.	3.9.2	The purpose of the Project is to generate electricity by using wind power and supply the electricity to the grid (NEPG). The scenario existing prior to the start of the Project is the NEPG provides the same amount of electricity, which is same as the baseline scenario.	The purpose of the Project with scenario existing prior to the start of the Project, present activities and baseline scenario has been explained clearly in the updated PDD. CL-1 is closed.
CL-2: The life span of main equipments should be indicated in the PDD.	3.9.3	The life time of the main equipment is 20 years which has been indicated in the PDD version 02.	The life span of wind turbine generator is 20 years, which has been checked against the purchase agreement and found consistent. CL-2 is closed.
CL-3: The parameter measuring net quantity of electricity supplied to NEPG ($EG_{\text{facility},y}$) should be included as well.	3.28.1	The parameter $EG_{\text{facility},y}$ is indicated in the PDD version 02.	The parameter $EG_{\text{facility},y}$ has been included in the monitoring section of updated PDD. CL-3 is closed.



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CL-4: Other activities similar to the Project should be identified and analyzed based on credible resources.	4.1.17.1	The credible resources used in the PDD are <i>Statistics of wind power installed capacity in China (2007)(2008)</i> written by Mr. Shi Pengfei and <i>Statistics of wind power installed capacity in China (2009) released by China Wind Energy Association..</i> Based on the defined criteria of similar activities specified in the PDD, there is no similar activity identified for the Project.	By checking the statistical sources <i>Statistics of wind power installed capacity in China (2007)(2008)(2009)</i> , no similar activity was found. CL-4 is closed.



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CL-5: The suitability of total project cost in the investment analysis requires the justification.	4.4.3	<p>The input values related to the investment in PDD are all taken from FSR which was compiled by a qualified third entity and approved by Liaoning Development & Reform Commission, thus the values are reliable. And furthermore, the current investment has already reached more than 90% of the total project cost estimated in the FSR.</p> <p>The actual costs of main equipments and engineering, such as wind turbines, wind towers, box-transformers, main transformer, civil engineering, are either close to or higher than relevant parts estimated in the FSR. Thus, the value of the total project cost in FSR is reliable.</p>	<p>Total project cost is 506.54 million RMB, consistent with information from the FSR.</p> <p>The total value from the signed contracts accounts for 90% of estimated project cost in FSR. The relevant signed contracts have been provided and verified. The value of already signed contracts is either close to or higher than the relevant parts in the FSR.</p> <p>Therefore, the total project cost is deemed appropriate.</p> <p>CL-5 is closed.</p>



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CL-6: The social welfare rate of 57% should be justified.	4.4.3	The value (57%) of Social Welfare Rate in PDD is taken from FSR which was compiled by an authorized entity. In addition, the relevant policies, including <i>The White Book of China Social Welfare Status and Policies</i> , <i>Enterprise Income Tax Law Regulations</i> , and <i>On business net of wages and salaries and staff welfare issues notice GSH[2009]NO.3</i> , also indicate that 57% is within a reasonable range.	The social welfare rate of 57% is taken from the approved FSR. As per relevant social welfare policies in China (including pension, health care, housing, employee benefits, etc), the social welfare rate of 57% is appropriate. CL-6 is closed.
CL-7: Please include other financial parameters, including annual O&M costs, VAT, debt equity ratio in the PDD	4.4.3	The annual O & M cost (1260.34(10 thousand) RMB/y), VAT (17%), and debt equity ratio (67%:33%) are all included in the updated PDD.	Financial parameters included in the updated PDD have been checked. CL-7 is closed.



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CL-8: The sensitivity analysis regarding whether the IRR will reach benchmark under certain situations should be presented in a more transparent way in the IRR spreadsheet. The likelihood for O& M expenses requires further assessment.	4.4.4	The critical points of each parameter are presented in IRR calculate spreadsheet. Annual O & M expenses are further discussed in the updated. PDD.	When total project cost decreases by 11.5%, O&M expenses decrease by 55.6%, quantity of supplied electricity or tariff increases by 11.9%, the IRR would rise to the benchmark of 8%. Relevant information is provided in the IRR spreadsheet. The likelihood for O&M expenses has been further discussed. CL-8 is closed.
CL-9: A detailed timeline of major actions/events associated with the implementation of the Project, including the finalization of FSR, investment decision, and PDD uploaded for GSP should be presented.	4.4.7.1	The FSR was finalized in March 2009, and the investment decision was made on 15/06/2009. The PDD uploaded to UNFCCC website for GSP was on 28/07/2010. All the information above is listed in the PDD version 02.	The detailed timeline of major actions/events in the PDD has been checked and found consistent with the evidence provided. CL-9 is closed.



VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
<p>CL-10: Please clarify whether the tariff of 0.61 RMB/kWh (incl VAT) in the FSR are valid and applicable at the time of investment decision.</p>	4.4.7.3	<p>There are four tariff policies for wind power projects issued after November 11, 2001, i.e. Document No. FGJG[2003]424 released on 28/05/2003 Document No. FGJG[2007]3303 released on 03/12/2007 Document No. FGJG[2008]1876 released on 23/07/2008 Document No. FGJG[2009]1906. released on 20/07/2009 The tariff policies, including FGJG[2003]424, [2007]3303, [2008]1876 were available when the FSR was finalized in Mar, 2009, and 0.61 RMB/kWh (including VAT) was the highest tariff of Liaoning wind power projects at that time. Hence, the tariff of 0.61 RMB/kWh (incl VAT) in FSR was valid and applicable at the moment of decision making. In July, 2009, NDRC released FGJG[2009]1906, which stated that the wind power price in Liaoning province was still approved to be 0.61 RMB/kWh (including VAT).</p>	<p>When the FSR was prepared in Mar, 2009, as per available official tariff notifications at that time, including Fai Gai Jia Ge [2007]3303 and [2008]1876, the wind power tariff in Liaoning province is approved to be 0.61 RMB/kWh (incl VAT). Based on the tariff information and FSR conclusion, the PP held meeting to discuss the application of CDM support on 15/06/2009. Thus, the tariff of 0.61 RMB/kWh (incl VAT) is valid and applicable at the time of investment decision.</p> <p>Furthermore, the latest tariff notification released by NDRC on 20/07/2009 ([2009]1906) also regulates that the wind power tariff in Liaoning Province should be 0.61 RMB/kWh (incl VAT).</p> <p>CL-10 is closed.</p>