



**VALIDATION REPORT**  
**YICHUN LONGYUAN HERO ASIA**  
**WIND POWER Co., LTD.**  
**VALIDATION OF THE**  
**HEILONGJIANG**  
**DABAISHAN WIND POWER**  
**PROJECT**

**BUREAU VERITAS CERTIFICATION**

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# VALIDATION REPORT

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Yichun Longyuan Hero Asia Wind Power Co., Ltd.	Mr. Chen Qiang

## Summary:

Bureau Veritas Certification has made the validation of Heilongjiang Dabaishan Wind Power Project of Yichun Longyuan Hero Asia Wind Power Co., Ltd. located in Jinshantun District Yichun City, Heilongjiang 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.

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 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.

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.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology ACM0002 version 08 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

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## Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
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
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISCH	International Stakeholder Consultation
ISO	International Organization for Standardization
LOA	Letter of Approval
MP	Monitoring Plan
NCPG	North China Power Grid
NDRC	National Development Reform Commission
NEPG	Northeast China Power Grid
NGO	Non Government Organization
ODA	Official Development Assistance
PDD	Project Design Document
PLF	Plant load factor
PP	Project Proponent (project owner)
PPA	Power Purchase Agreement
SWPC	Statistics of wind power installed capacity in China
UNFCCC	United Nations Framework Convention for Climate Change
VVM	Validation & Verification Manual
WTG	Wind Power Generator



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## 1 INTRODUCTION

Yichun Longyuan Hero Asia Wind Power Co., Ltd. (the project owner, hereafter called “**the PP**”) has commissioned Bureau Veritas Certification to validate its CDM project Heilongjiang Dabaishan Wind Power Project (hereafter called “**the Project**”) at Jinshantun District Yichun City, Heilongjiang 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 meets 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.

### 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

The validation team consists of the following personnel:

(Jasmine) Tang Xuemei      Team Leader,  
Bureau Veritas Certification, Climate Change Verifier

(Tony) Guo Hai              Team Member,  
Bureau Veritas Certification, Climate Change Verifier

## 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 of the Clean Development Mechanism Validation and Verification



Manual issued by the Executive Board at its 44 meeting on 28/11/2008./1/ The protocol shows, in a transparent manner, criteria (requirements), means of verification 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 verifier will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of two tables. The different columns in these tables are described in below **Figure 1**. The completed validation protocol is enclosed in **Appendix A** to this report.

**Figure 1.** Validation Protocol Tables

Validation Protocol Table 1: Requirements checklist			
Checklist Question	Reference	Comment	Draft and/or Final Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question. (See below). <b>Clarification Request (CL)</b> is used when the validation team has identified a need for further clarification.

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	Ref. to checklist question in tables 1	Summary of project owner response	Validation conclusion
If the conclusions from the Validation are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the validation team should be summarized in this section.	This section should summarize the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final Conclusion".

## 2.1 Review of Documents

The Project Design Document (PDD) submitted by Longyuan (Beijing) carbon asset management technology Co., Ltd. (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 Longyuan (Beijing) carbon asset management technology Co., Ltd. revised the PDD and resubmitted it



on 20/06/2009 and the validation findings presented in this report relate to the Project as described in the PDD version 2. (Ref-2)

## 2.2 Follow-up Interviews

On 02/12/2008 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 2.

**Table 2 Interview Topics**

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

## 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.

Bureau Veritas Certification 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 validation process, the concerns raised are documented in more detail in the validation protocol in the Appendix A.

### 3 VALIDATION CONCLUSIONS

In the following sections, the findings 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 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 5 Corrective Action Requests and 7 Clarification Requests.

The number between brackets at the end of each section title corresponds to the VVM paragraph.

#### 3.1 Approval (49, 50, 125)


The letters of approval have been received and the following support documentation:

 The China's DNA has issued the Letter of Approval (Doc.No.1715) in Dec.2008, authorizing Yichun Longyuan Hero Asia Wind Power Co., Ltd. as the Project Participant and confirmed that the Heilongjiang Dabaishan Wind Power Project contributes to China's Sustainable development. (Ref-3)

 The DNA of Austria has issued a Letter of Approval (Doc.No. BMLFUW-UW.1.3.2/0463-V/4/2008) dated 16/07/2008, authorizing Kommunalkredit Public Consulting GmbH as the Project Participant for the Project. (Ref-4)


Bureau Veritas Certification received the above letters from the PP and does not doubt its authenticity by checking the relevant official information.


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

 Complying with para.49, 50 and 125/VVM, Bureau Veritas Certification confirms that Heilongjiang Dabaishan Wind Power Project of Yichun Longyuan Hero Asia Wind Power Co., Ltd. is helpful to fulfill its goals of promoting sustainable development. The Project is expected to be in line with host-country specific CDM requirements because of:

- (a) reducing GHG emissions in China compared to the business-as-usual scenario;
- (b) creating local employment opportunities during the construction and operation of the Project;
- (c) assisting to meet the energy demand, therefore, contributing to local economy.

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

 Feasibility Study Report (FSR) of the Project approved by Development and Reform Commission of Heilongjiang Province on 27/11/2007 (Code: Hei Fa Gai Wai Zi [2007] No.1142). (Ref-5)

 Environment Impact Assessment (EIA) approved by Environmental Protection Bureau





of Heilongjiang Province on 22/08/2007 (Code: Hei Huan Jian Shen [2007] No.102). (Ref-6)

✍ The project activity of Grid connected wind power and the development of such Grid connected wind power is listed in the Renewable Energy Law, in the 2005 Guiding Catalogue of Industrial Structure Regulation Issued by National Development and Reform Commission. (Ref-7)

In the absence of the Project, equivalent amount of annual power output of the Project will be generated and supplied by Northeast China Power Grid (NEPG); this is same with 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 an analysis, presented by the PDD.

The overall layout of the Project is sound and the geographical (Jinshantun District Yichun City, Heilongjiang Province, P. R. China) and temporal (7 years) boundaries of the Project are 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.

### 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, Bureau Veritas Certification 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=AT>

### 3.3 Project design document (57)

✌ Complying with para.57/VVM, Bureau Veritas Certification hereby confirms that the PDD complies with the latest Project Design Document Form (CDM-PDD) version 03.2 and guidance documents for completion of PDD version 07.

### 3.4 Project description

The Project is sited in Jinshantun District Yichun City, Heilongjiang Province, P. R. China, which has geographical coordinates at north latitude 47°43'50" and east longitude 129°48'40".

The total installed capacity of the Project is 49.5MW with 33 wind turbines of unit capacity 1500kW supplied by Xinjiang Goldwind Science & Technology Co., Ltd. The estimated annual electricity supplied is about 112,600MWh which will be sold to the Northeast China Power Grid (NEPG). The Plant Load Factor of the Project is 0.2597 based on the FSR (Ref-9) which was conducted by the qualified entity of China Fulin Wind Power Development Corporation and approved by Heilongjiang Development and Reform Commission (Ref-5). BVC confirms "Guidelines for the Reporting and Validation of Plant Load Factors ver.1" (Annex 11, EB48) can be fully complied with. As the NEPG is dominated by thermal power generation, the establishment of the Project is expected to acquire annual emission reductions of 128,442tCO<sub>2</sub>e during the first seven years of its renewable crediting period.



The process undertaken by Bureau Veritas Certification to validate the accuracy and completeness of the project description include the document review and cross-check with the FSR and relevant approvals issued by local governments.

✌ Complying with para.64/VVM, Bureau Veritas Certification hereby confirms that the project description in PDD (Ref-2) is accurate and complete in all respects.

### 3.5 Baseline and monitoring methodology

#### 3.5.1 Baseline and monitoring methodology

The Project uses the approved consolidated baseline and monitoring methodology ACM0002 version 08– “*Consolidated baseline methodology for grid-connected electricity generation from renewable sources*” dated 28/11/2008./2/

The assessment of the relevant information contained in the PDD against each applicability condition is described below:

- ✌ The Project involves the electricity capacity additions from wind power plant.
- ✌ The Project does not involve switching from fossil fuels to renewable energy at the site of the Project.
- ✌ The geographic and system boundaries for the Northeast China Power Grid (NEPG) can be clearly identified and information on the characteristics of the NEPG is available.

Bureau Veritas Certification hereby confirms that the selected baseline and monitoring methodology 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, Bureau Veritas Certification hereby confirms that, as a result of the implementation of the proposed CDM project activity, there are no greenhouse gas emissions occurring within the proposed 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.

#### 3.5.2 Project boundary

The spatial extent of the Project boundary is clearly defined in line with ACM0002 version 08 as the physical, geographical site of Project and all other power plants connected physically to the NEPG that the Project is connected to.

✌ Complying with para.57/VVM, Bureau Veritas Certification 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) (hereafter called “*Notification of China-Grid EF*”). (Ref-8)

#### 3.5.3 Baseline identification

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

The 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 01.1 (hereafter called “*Tool-Grid EF*”). /3/

✌ Complying with para.80 and 81/VVM, Bureau Veritas Certification 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 sectoral policies and circumstances are considered and listed in the PDD;
- (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 Additionality of a project activity

The additionality of the Project has been demonstrated and assessed carefully according to the “*Tool for Demonstration and Assessment of Additionality*” version 05.2. (Hereafter called “*Tool-Additionality*”) /4/.

#### 3.6.1 Prior consideration of the CDM

It has been demonstrated by the timeline of events of the Project that the CDM revenues was seriously considered in the decision to proceed with the project activity 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	Actions	Reasons or Impacts	Evidences verified
Nov.2007	Feasibility study report of the proposed project finished. The plan of the CDM application was delineated in the FSR.	Seeking the support of CDM to make the Project to be financially feasible is suggested in FSR.	(Ref-9✓)
05/01/2008	PP's formal decision on CDM development to secure the investment return of the Project	According to conclusion of FSR, the project owner decided to apply CDM registration to increase the project IRR of the proposed project.	(Ref-10)✓
15/03/2008	Consultancy contract was signed.	Secure the progress of the CDM development	(Ref-13)✓
10/06/2008	Construction started	Take real actions based on CDM development initiated.	(Ref-11)✓



12/06/2008	WTG purchasing contract was signed.	Take real actions based on CDM development initiated.	(Ref-12)✓
31/06/2008	WTG construction engineering and installation contract was signed.	Secure the progress of the CDM development in parallel with the implementation of the Project.	(Ref-33)✓
15/10/2008	PDD was published for global stakeholder consultation at EB's website	Secure the progress of the CDM development in parallel with the implementation of the Project.	(Ref-1)✓
20/11/2008	Emission Reduction Purchase Agreement was signed with the buyer.	Secure the progress of the CDM development in parallel with the construction of the Project.	(Ref-14)✓
26/11/2008	Applying for Letter of Approval from DNA of China	Secure the progress of the CDM development in parallel with the construction of the Project.	(Ref-15)✓
Dec.2008	Letter of Approval issued by DNA of China	Secure the progress of the CDM development in parallel with the implementation of the Project.	(Ref-3)✓

The start date of the Project identified in the PDD is 10/06/2008, on which the construction engineering started (Ref-11). Bureau Veritas Certification has checked all physical documents mentioned above and was able to verify that all documents are substantial at the situation in the host country. From the table above, Bureau Veritas Certification confirms that the start date of project activity is 10/06/2008 (when the construction engineering started up), which is the earliest date at which the implementation or construction or real action of the project activity began.

✌ According to the latest Glossary of CDM terms Ver.04 and the Paragraph 67 of EB41 /7/, Bureau Veritas Certification was able to verify the start date of the Project identified in the PDD is appropriate and reasonable at that situation.

According to Para 98/VVM, the Project is an existing project activity (project activity with a start date before 02/08/2008). And the defined start date is prior to date when the PDD was submitted to Bureau Veritas Certification for validation.

The PDD addressed the serious consideration on the incentives from CDM prior to the project implementation as per the *"Guidance on the demonstration and assessment of prior consideration of the CDM"* version 02 (Annex 61, EB 48). (hereafter called *"Guidance-Prior Consideration"*) /5/

✌ By assessing the material actions taken by the PP, Bureau Veritas Certification confirms that the PP considered seriously the incentives from CDM in the context of the Project before taking its real actions, which is in accordance with the requirements of *"Guidance –Prior consideration"*. /5/



✌ Complying with para.102/VVM, Bureau Veritas Certification verified this issue which was considered much related to the additionality of the Project and can conclude 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 with the relevant documented evidences can form the objective basis of the validation opinions of Bureau Veritas Certification.

### 3.6.2 Identification of alternatives

Subsequently, Bureau Veritas Certification validated the additionality as addressed in the PDD of the Project.

The plausible and credible alternatives to the Project were identified as per the ACM0002 version 08:

Alternative (a): The Project undertaken without being undertaken as a CDM project activity;

Alternative (b): Construction of a thermal power plant with equivalent annual electricity output;

Alternative (c): Construction of a power plant using other sources of renewable energy with equivalent annual electricity output;

Alternative (d): Provision of equivalent annual electricity output supplied by NEPG

Alternative (b) was correctly eliminated through examination of current practice in China in which the laws or regulations applies. According to the 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, Decree No. [2002] 6 (Ref-16), construction of thermal power plants less than 135MW are prohibited in the areas covered by the large grid such as provincial grids in China.

Alternative (c) was eliminated by analyzing the feasibility of development of local renewable energy resources including solar PV, geothermal, biomass and hydropower. Realizing the technology development status and the high cost for power generation from solar PV, geothermal, and biomass, it is unfeasible in China to produce equivalent power output by solar PV, geothermal, and biomass (Ref-17). Furthermore, due to lack of resources of hydropower in project area, alternative III is excluded. (Ref-9)

✌ Complying with para.105/VVM, Bureau Veritas Certification was able to verify that the alternatives identified to the Project are complete and found satisfactory to exclude Alternative (b) and (c). Hence **Step 1** of “*Tool-Additionality*” was applied appropriately.

### 3.6.3 Investment analysis

Option III (benchmark analysis) is applied in the investment analysis as per the *Sub-step 2b* of **Step 2** of “*Tool-Additionality*”. Project IRR of 8% was employed by the project as benchmark, which is come from the “Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects” (Ref-19), this benchmark is widely applied in Chinese power generation industries.

✌ Therefore, Bureau Veritas Certification confirms that the benchmark is suitable for the project.



Based on the data from the Feasibility Study Report, the project IRR of the Project without CERs revenue is 6.48%, which shows that the project is not financially attractive in the absence of CDM benefits compared to the benchmark 8%.

Bureau Veritas Certification validated the basic parameters listed in the PDD according to the Guidance of EB 38<sup>th</sup> paragraph 54. /6/

- a) The input values used in the investment analysis were all quoted from the Feasibility Study Report compiled by a qualified third in the wind power industry of the host country i.e. China Fulin Wind Power Development Corporation(Ref-9). The parameters used and data sources for the investment analysis in the FSR was based on relevant national standards, regulations and publicly available price information. (Ref-5).

✌ Therefore, BVC can confirm that the input values used in the financial analysis are credible and reliable at the time of the investment decision.

- b) According to the relevant evidences provided, the FSR was finalized in Nov.2007, and investment decision was made on 05/01/2008 (Ref-10), the period of time between the finalization of the FSR and the PP's investment decision is thus considered sufficient short.

✌ Consequently, Bureau Veritas Certification can confirm that it is unlikely in the context of the Project that the input values would have materially changed, which is in line with the report of paragraph 54 (a) of EB 38<sup>th</sup>.

- c) Bureau Veritas Certification has reviewed the input values used in the PDD and IRR calculation against the data of the approved FSR, and found that they are fully consistent with each other; therefore, BVC confirmed that the investment analysis is in accordance with paragraph 54 (b) of EB 38<sup>th</sup>.

Furthermore, BVC has reviewed the input values from the FSR in IRR calculation sheet and confirmed that:

✍ The **operation lifetime** of 20 years were selected reasonably following the requirements of “*Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects*” and Para. 3 of “Guidance on the Assessment of Investment Analysis” ver. 2, i.e. a minimum period of 10 years and a maximum of 20 years will be appropriate”.

✍ The **Residual Value Rate** was selected reasonably following relevant regulation in China;

✍ The main part of **static total investment** in the FSR has been crosschecked with the already signed contracts of key equipments and engineering services (Ref-12, Ref-20, Ref-21, Ref-22) by BVC, and found that the total value of the contracts is slightly higher than the sub-items estimated in the FSR, therefore, the assumptions for the static total investment in FSR is reasonable and appropriate.

✍ The **tariff** used in the FSR of the Project is 0.5622RMB/kWh (excl.VAT) for accumulated equivalent full load 30,000 hours and 0.4147RMB/kWh (excl.VAT) for the rest of operating hours, which is in accordance with the three official documents as below,

- a. *Trial Measures for the Administration of Renewable Energy Power Price and Cost-sharing* (Code: Fa Gai Jia Ge [2006] No.7) (Ref-35) dated 04/01/2006, which stated that





- the tariff of renewable energy project would be 0.25RMB/kWh (incl.VAT) higher than the tariff for thermal power projects;
- b. *Notice on the Adjustment of Electricity Price of North China Grid by NDRC* (Code: Fa Gai Jia Ge [2006] No.1231) (Ref-26) dated 28/06/2006, which stated that the tariff for thermal power projects (equal to commercial average tariff) in Heilongjiang Grid covered by NEPG was 0.3567RMB/kWh (incl.VAT).
  - c. Tariff notifications for wind power projects (Doc.no. Fa Gai Jia Ge (2007) No.1261) issued by NDRC, i.e. dated 09/06/2007(Ref-36), which stated that the tariff for wind power projects is only for accumulated equivalent full load 30,000 hours, and after that a commercial average tariff of local grid will be employed.

Moreover, the tariff endorsed to similar wind power projects in Heilongjiang in latest two years (from 2006 to November 2007) was also considered during the compilation of the FSR. As per the tariff notifications above mentioned the tariff of 0.6067RMB/kW had been endorsed to Heilongjiang Muling Daimagou Wind farm Project and Heilongjiang Muling Ganmianshi Wind farm Project by Heilongjiang Price Bureau in September 2007./Ref-38/ Both two projects were also implemented with application of the CDM registration as the same investment situation with the Project. /Ref-39/

Given above, the tariff for full load 30,000 hours of the Project was estimated as 0.61RMB/kWh( $\approx 0.25 + 0.3567$ , incl.VAT) or 0.5622 RMB/kWh (excl.VAT) in the FSR of the Project. In Heilongjiang, the commercial average tariff was determined based on tariff of thermal power, which is 0.3567RMB/kWh (incl.VAT) or 0.3049RMB/kWh (excl.VAT) at the time of investment decision, and lower than the tariff of 0.5622RMB/kWh for full load 30000 hours by more than 45%.(Ref-26) With an estimation on tariff of thermal power after 30,000 hours (approx. thirteen years onwards) a conservative price of 0.4147RMB/kWh (excl.VAT) was used in the FSR as the tariff after full load 30,000 hours instead of using 0.3567RMB/kWh(incl.VAT) simply./Ref-5/

After the FSR finalized, there are two tariff notifications for wind power projects in Heilongjiang were issued by NDRC, i.e. Fa Gai Jia Ge (2007) No.3303 dated 03/12/2007 (Ref-37) and Fa Gai Jia Ge (2008) No.1876 dated 23/07/2008 (Ref-23). The tariff for total 18 wind power projects including the Project listed in the two tariff notifications is 0.5622RMB/kWh (excl. VAT) for accumulated equivalent full load 30,000 hours, and after that a commercial average tariff of Heilongjiang will be employed.

By checking with the above tariff information, BVC was able to verify that the tariff of 0.5622RMB/kWh (excl.VAT) for accumulated equivalent full load 30,000 hours and 0.4147RMB/kWh (excl.VAT) afterwards used in both FSR and PDD are reasonable and appropriate.

➤ BVC has crosschecked the **annual generation output** of the Project with the design parameters of wind turbine manufactured by Xinjiang Goldwind Science & Technology Co., Ltd., one year on site anemology records and history data of local wind resource during the latest 22 years, and found the consistency and reasonability.

➤ BVC has confirmed that the **annual O&M costs** in the FSR of the Project are the sum of salary and welfare of employees, materials fee, maintenance fee etc, which



is in accordance with the “Code on Compiling Feasibility Study Report of Wind Farms” issued by NDRC (Ref-24) and the input values are referred to in the relevant budgetary code made by Heilongjiang Price Bureau. The annual O&M cost of the Project is 5.67 million RMB in both the FSR and the PDD and the unit O&M cost is 0.278 Million RMB/MW which is slightly lower than the average cost of 0.302 million RMB/MW based on BVC internal statistics of registered CDM projects in Heilongjiang Province.

✎ BVC also verified values of various **taxes** through cross-check with the taxation rules conducted by local government and found to be fully consistent.

✎ In summary, based on the above reliable data sources, Bureau Veritas Certification is able to conclude that the input values from the approved FSR were valid and applicable at the time of the investment decision. Therefore, Bureau Veritas Certification confirmed that the input values used in the PDD meet the guidance paragraph 54(c) of EB 38<sup>th</sup>.

Bureau Veritas Certification has reviewed the IRR calculation and found that the calculation is correct and in accordance with “*Guidance on the assessment of investment analysis*” Version 02 (as the annex of “*Tool- Additionality*” Ver.05.2) /4/. As it shows, without CDM income, the project IRR of the Project is 6.48%, which is lower than the benchmark (8%).

A sensitivity analysis is performed, by taking into account  $\pm 10\%$  variations in following four financial indicators:

- Static total investment
- Annual O&M costs
- Annual Output
- Tariff

According to “*Code on compiling feasibility study report of wind power projects*” published by NDRC (Ref-24), static total investment, annual generation output and tariff should be taken as uncertainty factors to do sensitivity analysis, and  $\pm 10\%$  variation of above factors shall be considered in the sensitivity analysis. Therefore Bureau Veritas Certification has confirmed that the variables and variations  $\pm 10\%$  performed for sensitivity analysis is deemed to be reasonable in the wind farm sector in China.

The results of the sensitivity analysis show that the benchmark will not be reached with the variation  $\pm 10\%$  of the 4 indicators:

- With the decrease in **static total investment** by 10.35%, the Project IRR may reach 8%. Bureau Veritas Certification is confident that the total investment won't decrease by 10.35% because the total value of already signed contracts of main equipments and engineering is slightly higher than that estimated in FSR. (Ref-12, Ref-20, Ref-21, Ref-22)
- The **Annual O&M costs** comprise materials expense, maintenance cost, employee salary and welfare etc. All of these expenses are determined by qualified entity based on long term operation experience in FSR. Given the price level of construction materials and employee wage have been increasing and GDP is growing at the same time in China (Ref-34), BVC can confirm the annual O&M is impossible to decrease by 52%.
- With an increase by 12.30% in **annual generation output**, the project IRR will reach the benchmark. By checking the FSR and design parameters of wind turbine manufactured by Xinjiang Goldwind Science & Technology Co., Ltd., the annual generation output of the Project is based on wind resource data from 1985 to 2007 and WASP software which





reflects the average available wind source. BVC can confirm that it is unlikely that the annual generation output could increase by 12.30% during the whole life of the Project.

- With an increase in **tariff** by 10.80% (the tariff will be 0.6229RMB/kWh(excl.VAT) for initial 30,000 hours of operation and 0.4595RMB/kWh(excl.VAT) for the rest of operation period), the Project IRR will reach 8%. Taking into account the aforementioned tariff rules that the tariff for the Project has been fixed at 0.5622RMB/kWh(excl.VAT) for full load 30,000 hours (up to 13<sup>th</sup> operation year as the PLF defined in the FSR of the Project), the Project IRR will only reach the benchmark 8% if the tariff of after 30,000 hours increase by more than 70% (from 0.4147 to 0.71). Realizing the current price situation in thermal power sector in China, BVC can confirm that the tariff of after 30,000 hours is impossible to increase by too high rate to make the Project IRR reach the benchmark. Considering the CERs sales revenues (12EUR/tCO<sub>2</sub>e), the project IRR of the Project can be improved to 9.87% then exceeds the benchmark.

✎ Complying with para.112/VVM, 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, thus the Project is additional.

### 3.6.4 Barrier analysis

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

### 3.6.5 Common practice analysis

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 49.5MW wind farm in the area of Heilongjiang Province, therefore, the activities similar to the Project should be the wind farms located in Heilongjiang Province, with similar scale and take place in a comparable investment climate and constructed after the Chinese Government launched the power sector reform Program in 2002 (Ref-27).

Subsequently, Bureau Veritas Certification defined the similar projects in terms of the technical and investment environmental commissioned after 2002 and without CDM development in Heilongjiang Province should be sorted out. Following this criteria Bureau Veritas Certification verified the identification process in PDD by cross-checking the public statistics i.e. “*Statistics of wind power installed capacity in China*” Version 2007 dated 28/02/2008” written by Mr. Shi Pengfei, the authoritative Expert in the wind power sector (hereafter refer to as SWPC) (Ref-28).

As the public information presents, the “HuaFu Fujin” with capacity of 24.3MW and commissioned in 2004 and “HuaFu Mulan” with capacity of 12MW and commissioned in 2003 are identified as per the above criteria. While, it also presents that, the 2 projects are demonstration wind power projects subsidized by international low interest loan and soft loan (Ref-29), thus this is essentially different to the Project in the investment environment. Bureau Veritas Certification verified the description in the PDD and found that it is consistent with the statistics and therefore can conclude that the Project is not common practice in the region.

Thus Bureau Veritas Certification verified the description in the PDD and found that it is consistent with the sectoral statistics and therefore can conclude that the Project is not common practice in the region.

✎ Complying with para.119/VVM, based on above demonstration that in accordance with “Tool-Additionality” and supported by reliable data sources, it is the opinion of Bureau Veritas Certification that the Project is thus additional.



### 3.7 Calculation of GHG Emissions

According to the baseline methodology ACM0002 Version 08 and “*Tool-Grid EF*” version 01.1, /3/ the emission reductions from the Project were calculated as following six steps. In addition, the calculation process and result in the PDD are consistent with the latest “*Notification of China-Grid EF*” published by China’s DNA on 18/07/2008 which is valid at the time of the validation.

As per “*Tool-Grid EF*” version 01.1, six steps therein are applied to calculate the emission factor:

**Step 1.**-Identify the relevant electric power system.

The Northeast China Power Grid is selected as the electric power system of the Project. The connected electricity system is the North China Power Grid (NCPG). There are no net electricity imports from connected electricity system from 2004 to 2006 as per the latest Notification on Determining Baseline Emission Factor of China’s Grid issued by China’s DNA at the time of commencing this validation.

✌ Bureau Veritas Certification was able to verify the data sources of “*Notification of China-Grid EF*”, and confirmed that the identified electric power system is appropriate.

**Step 2.**-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.

✌ Bureau Veritas Certification 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. Data from China Electric Power Yearbook 2003-2007 has been applied correctly.

**Step 3.**-Calculate the operating margin emission factor according to the selected method.

The data on electricity generation and auxiliary electricity consumption are obtained from the China Electric Power Yearbook from 2005 to 2007 (published annually). The data on different fuel consumptions for power generation and the net caloric values of the fuels are obtained from the China Energy Statistical Yearbook from 2005 to 2007. The emission factors of the fuels adopted are 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 Bureau Veritas Certification confirms that the calculation can be replicated using the data and parameter provided in the PDD.

**Step 4.**-Identify the cohort 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 electricity.

2) Use of weights estimated using installed capacity in place of annual electricity generation.

✌ Bureau Veritas Certification hereby confirms that the data source and approaches taken are deemed reliable.

**Step 5.-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.

✌ Bureau Veritas Certification hereby confirms that the data sources are deemed reliable and calculation is appropriate.

**Step 6.-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 baseline emission sources considered are 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  $BE_y$  (tCO<sub>2</sub>) are equal to baseline emission factor  $EF_{grid,CM,y}$  (tCO<sub>2</sub>/MWh) times the net electricity supplied to the grid  $EG_y$  (MWh).
- 2) Project Emissions: the project emissions are regarded as zero for wind power projects as per the ACM0002 version 08.
- 3) Leakage: no leakage has to be considered for the proposed project activity since no energy generating equipment is transferred from or to the project site.
- 4) Emission reductions:

$$ER_y = BE_y - PE_y - LE_y = BE_y = EF_{grid,CM,y} \times EG_y$$

With reference to the Tool-Grid EF, the Simple OM emission factor ( $EF_{grid,OM,y}$ ) of NEPG is calculated as 1.256099 tCO<sub>2</sub>e/MWh. Similarly, the build margin emission factor ( $EF_{grid,BM,y}$ ) of the NEPG is calculated as 0.7946 tCO<sub>2</sub>e/MWh.

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

$$EF_{grid,CM,y} = 1.256099 \times 0.75 + 0.7946 \times 0.25 = 1.1407 \text{ tCO}_2\text{e/MWh}$$

According to the estimated annual electricity delivered to the grid 112,600MWh, the estimated annual emission reductions of the Project is 128,442tCO<sub>2</sub>e during the first crediting period represents a reasonable estimation using the assumptions given by the Project.

✌ Complying with para.91 and 92/VVM, Bureau Veritas Certification 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 (Ref-8)
- (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; /2/, /3/
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

### 3.8 Monitoring Plan

The Project uses the approved consolidated monitoring methodology ACM0002 version 08 for zero emissions 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 to discussions on the validity of the methodology at Section 3.5.1 above.

The ex-ante combined margin emission factor is determined based on the most recent information available. The parameters monitored ex-post is the net electricity supplied to the grid by the Project. The net electricity supplied to the grid by the Project will be calculated through metering equipment (accuracy is no less than 0.5S) at the on-site substation. It will be hourly measured and recorded monthly. The data will be crosschecked against the sales receipts.

According to ACM0002 version 08 no leakage has to be considered for the Project since no energy generating equipment is transferred from or to the site, viz.  $LE_y=0$ .

Operational management for the project activity is comprehensively detailed in PDD and this includes description of the responsibility, training, procedure reference, equipment details, calibration frequency and maintenance needs are clearly mentioned. Archiving of the records is indicated and DOE is of the opinion that the retrievability of relevant CDM project activity records is pro-actively considered satisfactorily.

By reviewing the provided training plan (Ref-30) and on-site interview with the PP, validation team 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 proposed CDM project activity can be reported ex post and verified.

✌ Complying with para.122/VVM, Bureau Veritas Certification hereby confirms that the project participants are able to implement the monitoring plan.

### 3.9 Environmental Impacts

Bureau Veritas Certification has confirmed that the Environmental Impact Assessment was carried out by the qualified entity ‘Heilongjiang Environmental Materials Supply Station’ in Jun.2007, and approved by the Environmental Protection Bureau of Heilongjiang Province on 22/08/2007 (Hei Huan Jian Shen [2007] No.102) (Ref-6).

The environmental impact results from the Project have been identified and analyzed in the PDD. By checking the EIA report Bureau Veritas Certification is able to ensure that the environment impacts occurs mainly in the construction period due to waste water, dust and



exhaust gas, noise pollution, solid waste, and ecological impact. All above impacts would be within an acceptable limit by carrying out corresponding mitigation measures as per the statement of the EIA.

✌ Complying with para.131/VVM, Bureau Veritas Certification 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.

### 3.10 Local Stakeholder consultation

Prior to the publication of the PDD on the UNFCCC website, viz, in 12/2007, the Project owner conducted a stakeholder discussion meeting and questionnaire survey to local stakeholders who live within the same county with the Project. Total 30 questionnaires had been distributed and all of them had been returned with 100% return rate.

The result of the meeting and 30 filled questionnaires shows that the interested stakeholder have a very good understanding of the Project, and they agreed that the project can increase the employment opportunities, reduce air pollution, improve living standards and increase income. 100% of the local stakeholders surveyed supported the construction of the Project.

Respondents consider that negative impacts possibly caused by the Project include occupation of land and noise, the PP will employ the methods mentioned in the EIA to mitigate the impact.

The returned questionnaires with answers of interested stakeholders are maintained by the project owner and were presented to DOE for assessment during the site visit of the validation activity (Ref-31).

The stakeholders viewed the Project as contributing to local environmental benefits and social economy. These views were endorsed by the local stakeholders interviewed during the site visit of the validation activity.

During the on-site visit, DOE has conducted an interview with local stakeholders and confirms that the stakeholders impacted had been invited transparency, the interview with stakeholders 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. Bureau Veritas Certification hereby confirms that the process of local stakeholder consultation is observed to be adequate.

✌ Complying with para.128/VVM, Bureau Veritas Certification hereby confirms that the local stakeholder consultation was performed Project will benefit to the local sustainable development without positively affect to the local stakeholders.

## 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.166/VVM, Bureau Veritas Certification published the project documents on the UNFCCC CDM website (<http://cdm.unfccc.int>) on 15/10/2008 and invited comments prior to 13/11/2008 by Parties, stakeholders and non-governmental organizations.

No comments were received during this period.





## 5 VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the Heilongjiang Dabaishan Wind Power 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 interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Project participant/s used the latest *Tool for demonstration and assessment of additionality* (version 05.2), *Paragraph 54 of EB 38* and the *Guidance-Prior consideration" -Guidance on the demonstration and assessment of prior consideration of the CDM (version02)* 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 01.1) 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 proposed project activity is not a likely 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 likely to achieve the estimated amount of emission reductions.

The review of the project design documentation (version 2) 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.

The validation is based on the information made available to us and the engagement conditions detailed in this report.

## 6 REFERENCES

### Category 1 Documents:

Documents provided by Type the name of the company that relates directly to the GHG components of the project.

Ref-1.	PDD version 1.0 dated 17/07/2008 and available for public comments (GSP) on 15/10/2008: <a href="http://cdm.unfccc.int/Projects/Validation/DB/PC5B0WYZVYVJBUDBOHN0W5A7Q5UGO2/view.html">http://cdm.unfccc.int/Projects/Validation/DB/PC5B0WYZVYVJBUDBOHN0W5A7Q5UGO2/view.html</a>
Ref-2.	PDD version 2.0 dated 20/06/2009
Ref-3.	LoA from DNA of China (Host country) in Dec.2008
Ref-4.	LoA from DNA of Austria (Annex I party) dated 16/07/2008
Ref-5.	Feasibility Study Report (FSR) Approval of the Project issued by Development and Reform



	Commission of Heilongjiang on 27/11/2007 (Code: Hei Fa Gai Wai Zi [2007] No.1142)
Ref-6.	Environment Impact Assessment (EIA) approval issued by Environmental Protection Bureau of Heilongjiang Province on 22/08/2007 (Code: Hei Huan Jian Shen [2007] No.102)
Ref-7.	National Renewable Energy Law issued by NDRC of China effective from 01/01/2006. <a href="http://www.windpower.org.cn/news/links/fl_2005_0510_02.htm">http://www.windpower.org.cn/news/links/fl_2005_0510_02.htm</a>
Ref-8.	Notification on Determining Baseline Emission Factor of China's Grid dated on 18/07/2008. <a href="http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1875.pdf">http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1875.pdf</a>
Ref-9.	Feasible Study Report (FSR) completed in Nov.2007
Ref-10.	CDM decision for the Project during board meeting of the proposed project owner
Ref-11.	Construction start-up permission
Ref-12.	WTG Purchase contract signed with Xinjiang Goldwind Science & Technology Co., Ltd.
Ref-13.	Consultancy contract signed with CDM development consultant company
Ref-14.	Emission Reduction Purchasing Agreement signed with CER buyer
Ref-15.	Bulletin on 56th Meeting of National CDM Board issued by China's DNA on 26/11/2008 <a href="http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2015.pdf">http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2015.pdf</a>
Ref-16.	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, Decree No. 2002 6. <a href="http://www.gov.cn/gongbao/content/2002/content_61480.htm">http://www.gov.cn/gongbao/content/2002/content_61480.htm</a>
Ref-17.	Evidences of high Cost on other renewable resources power: <a href="http://jjckb.xinhuanet.com/cjxw/2007-11/27/content_75467.htm">http://jjckb.xinhuanet.com/cjxw/2007-11/27/content_75467.htm</a> ; <a href="http://finance.people.com.cn/GB/1038/59942/59949/6294546.html">http://finance.people.com.cn/GB/1038/59942/59949/6294546.html</a> <a href="http://news.163.com/07/0919/08/30O8EQIR000120GU.html">http://news.163.com/07/0919/08/30O8EQIR000120GU.html</a>
Ref-18.	IRR calculation spreadsheet of the Project
Ref-19.	Data source of Benchmark (Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects)
Ref-20.	Construction engineering contract signed with Yichun Xinganling Wind Power Installation Co., Ltd.
Ref-21.	Purchase contract of main transformer of the Project
Ref-22.	Purchase contract of WTG towers
Ref-23.	Price regulation issued by NDRC on 23/07/2008 (Code: Fa Gai Jia Ge [2008] No.1876) <a href="http://jgs.ndrc.gov.cn/zcfg/t20080813_230722.htm">http://jgs.ndrc.gov.cn/zcfg/t20080813_230722.htm</a>
Ref-24.	The Codes on Compiling Feasibility Study Report of Wind Farms issued by National Development Reform Committee (NDRC)
Ref-25.	As regulated by Electric Dispatch Communication Centre of Northeast China Power Grid, the grid company should adjust wind power output even shut up to ensure the grid can operate safely
Ref-26.	Price regulation issued by NDRC on 28/06/2006 (Code: Fa Gai Jia Ge [2006]1231)
Ref-27.	Electric Power System Reform was issued by China State Council dated 10/02/2002



Ref-28.	"Statistics of wind power installed capacity in China" Version 2007 dated 28/02/2008: <a href="http://www.gsec.gov.cn/ClassNews.asp?newsID=664">http://www.gsec.gov.cn/ClassNews.asp?newsID=664</a>
Ref-29.	Notice of favorable loan received by Huafu Fujin and Mulan in Heilongjiang Province: <a href="http://www.newenergy.org.cn/Html/9991/19991799.html">http://www.newenergy.org.cn/Html/9991/19991799.html</a> <a href="http://www.chinapower.com.cn/newsarticle/1005/new1005504.asp">http://www.chinapower.com.cn/newsarticle/1005/new1005504.asp</a>
Ref-30.	Training plan for plant operation and regular monitoring requirements of the Project
Ref-31.	Evidence of 30 pieces of stakeholder survey questionnaires
Ref-32.	Emission Factor calculation spreadsheet
Ref-33.	WTG construction engineering and installation contract dated 31/06/2008
Ref-34.	Construction materials and wages are keeping rising in China. <a href="http://pv.autooo.net/htm/1/4220.html">http://pv.autooo.net/htm/1/4220.html</a>
Ref-35.	Measures for the Administration of Renewable Energy Power Price and Cost-sharing (Code: Fa Gai Jia Ge [2006] No.7)
Ref-36.	Tariff notification issued by NDRC on 03/12/2007 (Fa Gai Jia Ge [2007] No.3303)
Ref-37.	Tariff notification to Heilongjiang Muling Daimagou Wind farm Project and Heilongjiang Muling Ganmianshi Wind farm Project (Hei Jia Ge Zi[2007]194) issued by Heilongjiang Price Bureau dated 06/09/2007
Ref-38.	<a href="http://cdm.unfccc.int/Projects/Validation/index.html">http://cdm.unfccc.int/Projects/Validation/index.html</a>

### Category 2 Documents:

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

- /1/ Validation and Verification Manual Version 01 dated 28/11/2008 EB 44<sup>th</sup> Annex 3
- /2/ ACM0002 version 08 dated 28/11/2008
- /3/ Tool to calculate the emission factor for an electricity system Version 01.1 dated 29/07/2008
- /4/ Tool for demonstration and assessment of additionality Version 05.2 dated 26/08/2008
- /5/ Guidance on the demonstration and assessment of prior consideration of the CDM Version02 (Annex 61, EB 48)
- /6/ Paragraph 54 of EB 38<sup>th</sup> dated 14/03/2008
- /7/ Glossary of CDM terms Version.04.and paragraph.67 of EB 41<sup>st</sup>

### 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. Chen Qiang, Plant Manager of Heilongjiang Longyuan Power Co., Ltd.
- 2 Mr. Song Baolin, Environmental Protection Bureau of Jinshantun District





- 3 Mr. Xing Xiaohong, Fengmao Forestry Plant of Jinshantun Forestry Bureau
- 4 Mr. Men Guangfeng, Vice President of Forestry Bureau Jinshantun District
- 5 Ms. Gao Tiemei, Jinshan Power Supply Company of Hegang City
- 6 Ms. Feng Tianfeng, Project manager of consultancy company
- 7 Mr. Shi Jin, Project manager of consultancy company

## 7 CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mr. (Robin) Wang Jing	Bureau Veritas Certification, China	<p>Technical Reviewer, CDM Lead Verifier.</p> <p>He has total experience of twelve years and has worked in energy sector in oil or gas companies in PR China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for EMS ISO14000. He was involved in approximate 50 CDM projects in PR China.</p>
Ms. (Jasmine) Tang Xuemei	Bureau Veritas Certification, China	<p>Team Leader, CDM Lead Verifier.</p> <p>She holds a Master Degree in Environment Engineering. She has 2 years of CDM consulting experience in energy sector in P.R China and involved in approximate 20 CDM projects in P.R China. She obtained the certificate of CDM Lead Verifier and Lead Auditor for ISO 14001.</p>
Mr. (Tony) Guo Hai	Bureau Veritas Certification, China	<p>Team Member, CDM Lead Verifier.</p> <p>CDM Verifier, He holds a bachelor degree in Chemical engineering. He has 3 years of environmental engineering and 4 years of environmental management system audit experience. He has received the training and obtained the certificates of CDM lead verifier and ISO14001 lead auditor. He has been involving several CDM projects in China.</p>

## APPENDIX A: CDM PROJECT VALIDATION PROTOCOL

## VALIDATION PROTOCOL

Table 1 Validation requirements based on the Validation and Verification Manual (EB44 Annex 3)

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl.	Final Concl.
<b>1. Approval</b>			<b>COUNTRY A (China)</b>	<b>COUNTRY B (Austria)</b>		
A. Have all Parties involved approved the project activity?	VVM	44	CAR-1 Not yet been presented.	CAR-2 Not yet been presented.	CAR-1 CAR-2	OK
B. 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? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participation or directly from the DNA)	VVM	45	Pending on close CAR-1	Pending on close CAR-2	Pending	OK
C. Does the letter of approval from DNA of each Party involved:	VVM	45				
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Yes. China has ratified the KP on August 30, 2002.	Yes. Austria has ratified the KP on July 09, 2003.	OK	OK
ii. confirm that participation is voluntary?	VVM	45.b	Pending close CAR-1	Pending close CAR-2	Pending	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl.	Final Concl.
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	Pending close CAR-1	N/A	Pending	OK
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Pending close CAR-1	Pending close CAR-1	Pending	OK
D. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	No. It is conditional in China.	No. It is conditional in Austria.	OK	OK
E. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA)?	VVM	47	Pending close CAR-1	Pending close CAR-2	Pending	OK
F. If there is doubt with respect to (e) above, was verified with the DNA that the letter of approval is valid for the proposed CDM project activity under validation?	VVM	47	Pending close CAR-1	Pending close CAR-2	Pending	OK
<b>2. Participation</b>			<i>PP1 (Yichun Longyuan Hero Asia Wind Power Co., Ltd.)</i>	<i>PP2 (Kommunalkredit Public Consulting GmbH)</i>		
A. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	Pending close CAR-1	Pending close CAR-2	Pending	OK
B. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	Pending close CAR-1	Pending close CAR-2	Pending	OK
C. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	Yes	Yes	OK	OK
D. Is the information in section A.3 consistent with the	VVM	52	Yes	Yes	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl.	Final Concl.
contact details provided in Annex 1 of the PDD?						
E. 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? (Provide reference of the approval document for each of the project participants)	VVM	52	Pending close CAR-1	Pending close CAR-2	Pending	OK
F. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	No		OK	OK
G. Has the approval of participation issued from the relevant DNA?	VVM	53	Pending close CAR-1	Pending close CAR-2	Pending	
<b>3. Project desing document</b>						
A. 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
B. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	Yes		OK	OK
C. In CDM-PDD section <b>A.1</b> are the following provided?	EB 41	Ann 12				
i. Title of project	EB 41	Ann 12	Yes. Heilongjiang Dabaishan Wind Power Project		OK	OK
ii. Current version number and date of document	EB 41	Ann 12	Yes. Version number: 1, dated 17/07/2008		OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
			Final Version number: 2 dated 20/06/2009		
D. In CDM-PDD section <b>A.2</b> are following provided (max. one page)?	EB 41	Ann 12			
i. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, present scenario and baseline scenario	EB 41 - VVM	Ann 12 - 58 59 60	Yes.  The proposed project involves the installation of 33 sets of 1,500kW wind turbines, for a total installed capacity of 49.5 MW. It is estimated that the annual generated output will be 112,600 MWh.  The situation prior to the project is the same as the baseline scenario, which is that the NEPG would provide the same amount of electricity.	OK	OK
ii. 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
iii. Explanation on how the GHG emission reductions are effected	EB 41	Ann 12	Yes.  The purpose of the proposed project is to generate electricity using wind power resources in the project region and to sell into Northeast Power Grid (NEPG). The electricity generated from the project can displace part of the power from the grid, and the expected annual GHG emission reductions are 128,442 tCO <sub>2</sub> e.	OK	OK
iv. The PP's views on the contribution of project activity to sustainable development	EB 41	Ann 12	Yes.  ◆ The GHG emissions and local environmental	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
			<p>pollution caused by air emissions from fossil fuel fired power plants will be reduced and mitigated as NEPG is dominated by fossil fuel fired power plants;</p> <p>◆ Working opportunity will be increased;</p> <p>◆ The implementation of the proposed project will be assist to meet the energy demand, therefore, contribute to local economy;</p> <p>As the contribution to sustainable development included in Section A.2 of the PDD has been checked against the approved FSR of the project.</p>		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
E. In CDM-PDD section <b>A.3</b> are following provided in the tabular format?	EB 41	Ann 12			
i. List of project participants and parties	EB 41	Ann 12	Yes. The private entities involved in the project activity are listed at section A.3 of the PDD. Host Country-China - Yichun Longyuan Hero Asia Wind Power Co., Ltd. Annex I Country- Austria - Kommunalkredit Public Consulting GmbH	OK	OK
ii. Identification of Host Party			Yes. P.R. China	OK	OK
iii. Indication whethre the Party wishes to be considered as project participant	EB 41	Ann 12	Yes. No party involved wishes to be considered as PP.	OK	OK
F. In CDM-PDD section <b>A.4.1</b> are following provided?	EB 41	Ann 12			
i. Technical description, location, host party(ies) and address as required	EB 41	Ann 12	Yes Host country is P.R. China. The location is Yichun city, Heilongjiang Province.	OK	OK
ii. Detailed physical location with unique identification of the project activity (eg. Longitude/latitude) – not to exceed one page	EB 41	Ann 12	Yes. The geographical coordinates is N 47°43'50" E 129°48'40"	OK	OK



CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
G. 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
H. In CDM-PDD section A.4.3 are following provided?	EB 41	Ann 12			
i. A description of how environmentally safe and sound technology, and know-how, is transferred to the Host Party(ies)	EB 41	Ann 12	Type of Goldwind 77/1500KW WTG is applied in the proposed project. No technology from abroad is transferred for the CDM project activity.  The environmentally safe, sound technology and initial training applied by the project is required to be described.	CL-1	OK
ii. Explanation of purpose of project activity with scenario existing prior to the start of project, scope or present activities and the baseline scenario	EB 41	Ann 12	The project is a newly built wind farm.  It should also further explain the purpose of the project activity in Section A.4.3 and include the description of the age and average lifetime of the equipments, forecast installed capacities, load factors and efficiencies.	CL-2	OK
iii. List and arrangement of the main manufacturing/production technologies, systems and equipments involved	EB 41	Ann 12	Pending on (3.H.iii) CL-2	Pending	OK
iv. The emissions sources and GHGs involved	EB 41	Ann 12	Yes.  To reduce greenhouse gas emissions of CO <sub>2</sub> produced in NEPG.	OK	OK
I. In CDM-PDD section A.4.4 is the estimation of	EB	Ann	7×3 renewable crediting periods chosen;	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
emission reductions provided as requested in a tabular format?	41	12	Annual emission reduction of 128,442tCO <sub>2</sub> e is estimated for the first crediting period		
J. In CDM-PDD section A.4.5 is Information regarding Public funding provided?	EB 41	Ann 12	Yes.  No public funding involved confirmed with the approved FSR and loan contract.	OK	OK
K. In CDM-PDD section <b>B.1</b> are following provided?	EB 41	Ann 12			
i. The approved methodology and version number	EB 41	Ann 12	Yes.  ACM0002 ver.07  <i>"Consolidated methodology for grid-connected electricity generation from renewable sources"</i> in the GSP PDD.  ACM0002 ver.08  <i>"Consolidated methodology for grid-connected electricity generation from renewable sources"</i> in the revised PDD.	OK	OK
ii. Any methodologies or tools which the above approved methodology draws upon and their version number	EB 41	Ann 12	Yes.  <i>"Tool for the Demonstration and Assessment of Additionality ver. 05.2"</i> and  <i>"Tool to calculate the emission factor for an electricity system ver. 01.1"</i>	OK	OK
L. In CDM-PDD section B.2 is justification of the choice of methodology that the project activity meets each	EB 41	Ann 12	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
of the applicability conditions provided?			The Project fulfills the criteria of ACM0002 ver.08 - utilization of wind sources; - not involving switching from fossil fuels to renewable energy at project site; - the geographic and system boundaries of NEPG can be clearly identified and the information of this grid is available.		
M. In CDM-PDD section <b>B.3</b> are following provided?	EB 41	Ann 12			
i. Description of all sources and gases included in the project boundary in the table	EB 41	Ann 12	Yes. Only emission of CO <sub>2</sub> is considered in baseline emission.	OK	OK
ii. A flow diagram of the project boundary physically delineating the project activity	EB 41	Ann 12	Yes.	OK	OK
iii. The flow diagram with all equipments, systems and flows of mass and energy etc	EB 41	Ann 12	Yes. Equipments, systems and flows of mass and energy are described.	OK	OK
N. In CDM-PDD section <b>B.4</b> are following provided?	EB 41	Ann 12			
i. Explanation how the most plausible baseline scenario is identified in accordance with the selected baseline methodology	EB 41	Ann 12	Pending on close CAR-4 (4.D.b)	Pending	OK
ii. Justification of key assumptions and rationales	EB 41	Ann 12	Not applicable.	NA	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
O. In CDM-PDD section <b>B.5</b> are following provided?	EB 41	Ann 12			
i. Explanation 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. Investment analysis used for demonstration of the additionality.	OK	OK
ii. Justification of key assumptions and rationales	EB 41	Ann 12	Yes.	OK	OK
iii. Transparent illustration of all data used to determine the baseline scenario (variables, parameters, data sources etc)	EB 41	Ann 12	Yes. See PDD B.5, Step 2.	OK	OK
iv. 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	A complete timeline of implementation of the proposed project and actions which have been taken to achieve CDM registration should be represented as well as the relevant evidence is required to be provided.	<del>CAR-3</del>	OK
P. In CDM-PDD section <b>B.6.1</b> are following provided?	EB 41	Ann 12			
i. Explanation as to 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. 01.1 is used. (referred to as “ <b>Tool-Grid EF</b> ” in the report)	OK	OK
ii. Equations used in calculating emission reductions	EB 41	Ann 12	The equations of “Tool-Grid EF” are used.	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
iii. Explanation and justification for all relevant methodological choices, including different scenarios or cases, options and default values	EB 41	Ann 12	The official data of Chinese power grid issued by NDRC annually are used. (referred to as " <b>Notification of China Grid EF</b> " in the report)	OK	OK
Q. In CDM-PDD section <b>B.6.2</b> are following provided?	EB 41	Ann 12			
i. 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 period AND that are available when validation is undertaken	EB 41	Ann 12	Yes. Complying with "Tool-Grid EF", the necessary official data of power grid made publically by NDRC are available and determined during validation.	OK	OK
ii. Explanation and justification for the choice of the source of data	EB 41	Ann 12	The official data i.e. <b>Notification of China Grid EF</b> were based on the data of China Energy Statistical Yearbook and China Power Yearbook, and authorities' expertise.	OK	OK
iii. Clear and transparent references or additional documentation in Annex 3	EB 41	Ann 12	Yes.	OK	OK
iv. 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
R. In CDM-PDD section <b>B.6.3</b> are following provided?	EB 41	Ann 12			

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
i. A transparent <i>ex ante</i> calculation of project 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	EB 41	Ann 12	Yes. The calculation process is in line with the steps taken prescribed in "Tool-Grid EF" and addressed in PDD B.6.3 and Annex 3.	OK	OK
ii. 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
iii. Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 41	Ann 12	Yes.		
S. In CDM-PDD section <b>B.6.4</b> are the results of the <i>ex ante</i> estimation of emission reductions for all years of the crediting period, provided in a tabular format?	EB 41	Ann 12	Yes. From 2009 to 2016 with year-wise data of emission reductions.	OK	OK
T. In CDM-PDD section <b>B.7.1</b> are following provided?	EB 41	Ann 12			
i. 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	Yes. <i>EG<sub>y</sub></i> –net electricity supplied to NEPG in year y.	OK	OK
ii. For each parameter the following below information, using the table provided:	EB 41	Ann 12			
a. The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where	EB 41	Ann 12	N/A No other outside source(s) of data should be used.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
several sources may be used, explain and justify which data sources should be preferred.					
b. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied, which measurement equipment is used, how the measurement is undertaken, which calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person/entity that should undertake the measurements and what is the measurement interval; (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment. Provide any relevant further background documentation in Annex 4.	EB 41	Ann 12	Yes. The information is provided using the table as required.	OK	OK
U. In CDM-PDD section <b>B.7.2</b> are following provided?	EB 41	Ann 12			
i. A detailed description of the monitoring plan	EB 41	Ann 12	Yes. The relevant details are addressed.	OK	OK
ii. 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	Yes. The operational and management structure is provided.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
iii. The responsibilities for and institutional arrangements for data collection and archiving	EB 41	Ann 12	Yes. The structure covered from general management to meters recorder.	OK	OK
iv. Indication that the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 41	Ann 12	Yes Widely applied in power sector.	OK	OK
v. Relevant further background information in Annex 4	EB 41	Ann 12	Not addressed separately. Same to PDD Section B7.2	OK	OK
V. In CDM-PDD section <b>B.8</b> are following provided?	EB 41	Ann 12			
i. Date of completion of the application of the methodology to the project activity study in DD/MM/YYYY	EB 41	Ann 12	Yes On 17/07/2008	OK	OK
ii. 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. Longyuan (Beijing) carbon asset management technology Co., Ltd.	OK	OK
iii. Indication if the person/entity is also a project participant listed in Annex 1	EB 41	Ann 12	Yes. The person/entity is not the project participant	OK	OK
W. In CDM-PDD section <b>C.1.1</b> are following provided?	EB 41	Ann 12			
i. The starting date of a CDM project activity, which is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (EB33, Para	EB 41	Ann 12	10/06/2008 Pending on close CAR-3	Pending	OK



CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
76/CDM Glossary of terms/EB41, Para 67)					
ii. A description of how this start date has been determined, and a description of the evidence available to support this start date	EB 41	Ann 12	The date of construction starting date. Pending on close CAR-3	Pending	OK
iii. If this starting date is earlier than the date of publication of the CDM-PDD for global stakeholder consultation by a DOE, description in Section B.5 contain how the benefits of the CDM were seriously considered prior to the starting date (EB41, Para 67).	EB 41	Ann 12	Yes. Addressed in PDD-B.5.	OK	OK
X. In CDM-PDD section C.1.2 is the expected operational lifetime of the project activity in years and months provided?	EB 41	Ann 12	The operational lifetime and length of first crediting period needs to be displayed in year and month.	CL-3	OK
Y. In CDM-PDD section C.2 is it stated whether the project activity will use a renewable or a fixed crediting period and is C.2.1 or C.2.2 completed accordingly?	EB 41	Ann 12	A renewable crediting period is used.	OK	OK
Z. In CDM-PDD section C.2.1 is it indicated that each crediting period shall be at most 7 years and may be renewed at most two times, provided that, for each renewal, a designated operational entity determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable?	EB 41	Ann 12	Yes. 3x7 years This baseline determination is for the first 7 years.	OK	OK
AA. In CDM-PDD section C.2.1.1 are dates in the following format: (DD/MM/YYYY) provided?	EB 41	Ann 12	Yes. 01/11/2009 or the date of registration whichever is later.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
BB. In CDM-PDD section C.2.1.2 is the length of the first crediting period in years and months provided?	EB 41	Ann 12	Pending on (3.X) above	Pending	OK
CC. In CDM-PDD section C.2.2 is the fixed crediting period at most ten (10) years provided?	EB 41	Ann 12	N/A.	OK	OK
DD. In CDM-PDD section C.2.2.1 are the dates provided in the following format: (DD/MM/YYYY)?	EB 41	Ann 12	N/A.	OK	OK
EE. In CDM-PDD section C.2.2.2 is the length of the crediting period in years and months Provided?	EB 41	Ann 12	N/A.	OK	OK
FF. In CDM-PDD section D.2 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	The conclusion stated.	OK	OK
GG. In CDM-PDD section E.1 are the following provided?	EB 41	Ann 12			
i. 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	Yes.  Target group-local farmers, workers and government officials were interviewed;	OK	OK
ii. The project activity is described in a manner, which allows the local stakeholders to understand the	EB	Ann	Yes.	OK	OK

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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	41	12	By a symposium and distributing questionnaires.		
iii. The local stakeholder process has been completed before submitting the proposed project activity to the DOE for validation.	EB 41	Ann 12	Yes	OK	OK
HH. In CDM-PDD section E.2 are following provided?	EB 41	Ann 12			
i. Identification of local stakeholders that have made comments	EB 41	Ann 12	Yes. It covers local farmers, workers and government officials were interviewed;	OK	OK
ii. A summary of this comments.	EB 41	Ann 12	Yes. See PDD-E.2	OK	OK
II. 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.	OK	OK
JJ. In CDM-PDD <b>Annex 1</b> are the following provided?	EB 41	Ann 12			
i. Contact information of project participants	EB 41	Ann 12	Yes.	OK	OK
ii. For each organisation 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
KK. In CDM-PDD <b>Annex 2</b> is information from Parties	EB	Ann	N/A as no public funding from Annex I countries is	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
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?	41	12	involved in the proposed project.		
LL. In CDM-PDD <b>Annex 3</b> is the background information used in the application of the baseline methodology provided?	EB 41	Ann 12	Yes.	OK	OK
MM. In CDM-PDD <b>Annex 4</b> is the background information used in the application of the monitoring methodology provided?	EB 41	Ann 12	No. Refer to PDD-B.7.2.	OK	OK
<b>4. Baseline and monitoring methodology</b>					
<b>A. General requirement</b>					
a. Is the baseline and monitoring methodologies selected by the project participants previously approved by the CDM Executive Board?	VVM	65	Refer to (4.B.a) below	OK	OK
b. Is the selected methodology applicable to the project activity?	VVM	66	Refer to (4.B.b) below	OK	OK
c. Had the selected methodology been correctly applied?	VVM	66	Refer to (4.B.c) below	OK	OK
d. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	Refer to (4.B) below	OK	OK
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Refer to (4.D.b) below	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	Refer to (4.E) below	OK	OK
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	Refer to (5) below	OK	OK
<b><i>B. Applicability of the selected methodology to the project activity</i></b>					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity?	VVM	68	Yes. ACM0002 version 08	OK	OK
b. Is the methodology correctly quoted?	VVM	69	Yes. The Project fulfills the criteria of ACM0002 ver.08 - utilization of wind sources; - not involving switching from fossil fuels to renewable energy at project site; - the geographic and system boundaries of NEPG can be clearly identified and the information of this grid is available.	OK	OK
c. Are the applicability conditions of the methodology met?	VVM	70	Yes.	OK	OK
d. Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	70	No other emissions other than CO <sub>2</sub> are identified.	OK	OK
e. Is the DOE, based on local and sectoral knowledge,	VVM	70	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
aware that comparable information is available from sources other than that used in the PDD?			FSR and Public information has been checked and found the consistency.		
f. If yes, was the PDD cross checked against the other sources to confirm that the project activity meets the applicability conditions of the methodology?	VVM	70	Yes.	OK	OK
g. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	71	Yes.	OK	OK
h. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	71	N/A	NA	OK
i. If answer to (4.B.c) above is “no”, revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	N/A	NA	OK
<b>C. Project boundary</b>					
a. 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?	VVM	77	Yes.  The spatial extent of the project boundary includes Project site. The project site includes total 33 sets of turbines with a unit capacity of 1,500kW, step-up substations and auxiliary facilities that are used to support the turbines operation. The Project is connected to the Northeast China Power Grid (NEPG) and therefore the NEPG that all power plants connected to is selected as the project boundary.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
b. Is the delineation in the PDD of the project boundary correct?	VVM	78	Yes, confirmed by cross-checking with official boundary definitions published by the China's DNA.	OK	OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	78	Yes. Clearly identified.	OK	OK
d. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	78	Yes. For wind power projects only CO <sub>2</sub> emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.	OK	OK
e. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	78	Not applicable	OK	OK
f. If yes, have the project participants justified that choice?	VVM	78	Not applicable	OK	OK
g. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	78	Not applicable	OK	OK
<b>D. Baseline identification</b>					
a. 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	80	Yes. The baseline scenario was clearly identified in PDD B.4. It is 'Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation	OK	OK



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			sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system.’		
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	81	No.  The procedure to identify the baseline scenario in PDD is not consistent with requirement in ACM0002 ver.08.	GAR-4	OK
c. 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	81	No.	OK	OK
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	81	N/A	OK	OK
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	82	No.  Refer to (4.D.b) above	Pending	OK
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	82	N/A.	OK	OK
g. Has any unreasonable alternative scenario been excluded?	VVM	82	N/A .Refer to (4.D.b) above	Pending	OK
h. Are the documents and sources referred to in the	VVM	83	Yes	OK	OK

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PDD correctly quoted and interpreted?					
i. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	83	Refer to (4.D.b) above	Pending	OK
j. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	84	Refer to (4.D.b) above	Pending	OK
k. 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	84	Refer to (4.D.b) above	Pending	OK
l. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	85	Yes.  It is identified in the PDD B.4 that “ <i>Electricity delivered to the grid by the project activity 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..”</i> ”	OK	OK
<b><i>E. Algorithms and/or formulae used to determine emission reductions</i></b>					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the	VVM	88	Yes.  Tool to calculate the emission factor for an electricity system are required to be used by	OK	OK

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requirements of the selected baseline and monitoring?			ACM0002.		
b. Have the equations and parameters in the PDD been correctly applied with those in the select approved methodology?	VVM	89	The steps and equations applied are consistent with the Tool to calculate the emission factor for an electricity system and ACM0002.	OK	OK
c. Does the methodology provide for selection between different options for equations or parameters?	VVM	89	Yes. Options in Step 1, 2 and 3. are used for OM factor determination	OK	OK
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	89	Yes. The relevant justifications in Step 1, 2 and 3.	OK	OK
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	89	Refer to (4.E.b) above	OK	OK
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	90	Not applicable as the emission factor is determined ex ante for the Project.	OK	OK
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	90			
i. Appropriate and correct?	VVM	90	Yes as the emission factor is determined ex ante for the project.	OK	OK
ii. Applicable to the proposed CDM project activity?	VVM	90	Yes.	OK	OK
iii. Resulting in a conservative estimate of the emission reductions?	VVM	90	Yes.	OK	OK

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h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	90	Not applicable	OK	OK
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	90	Not applicable	OK	OK
<b>5. Additionality of a project activity</b>					
a. Does the PDD describe how a proposed CDM project activity is additional?	VVM	93	Pending close out all Findings in this section.	Pending	OK
b. Does the CDM-PDD state the latest version of the additionality tool being used?	VVM	94	Yes. The approved "Tool for the Demonstration and Assessment of Additionality" version 05.2 is used.	OK	OK
c. 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 was not used) Step 4-common practice analysis	OK	OK
i. Identification of alternatives to the project activity? (Step 1)	EB 39	Ann 10	Yes, all plausible and credible alternative scenarios have been identified in the PDD, including:  Alternative a: The project activity undertaken without being registered as a CDM project activity;		

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			<p>Alternative b: Construction of a thermal power plant with the same annual electricity output as the proposed project;</p> <p>Alternative c: Construction of a power plant using other sources of renewable energy with equivalent annual electricity generation;</p> <p>Alternative d: Continuation of the current situation: provide the same electricity output by Northeast Power Grid</p> <p>Alternative c is excluded due to lack of hydro resources on/around project site, and the financial less attractiveness of geothermal, biomass and solar PV power generation technologies.</p> <p>The source of evidences to exclude solar PV, geothermal, biomass and hydro power need to be represented.</p>	CL-4	OK
ii. Investment analysis to determine that the proposed project activity is either: (1) not the most economically or financially attractive, or (2) not economically or financially feasible? (Step 2)	EB 39	Ann 10	<p>Yes, (2) is used.</p> <p>The appropriate analysis method is clearly discussed and determined in the PDD.</p> <p>Option III (benchmark analysis) is chosen for investment analysis.</p>	OK	OK
iii. Barriers analysis?	EB 39	Ann 10	Not used.	OK	OK
iv. Common practice analysis?	EB	Ann	Pending on (5.t)	Pending	OK

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	39	10			
d. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	Yes.	OK	OK
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	Yes.	OK	OK
e. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10	Yes.	OK	OK
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes. Refer to 5.c.i. above.	OK	OK
ii. (b) 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	Yes. Refer to 5.c.i. above.	OK	OK
iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	Yes. Refer to 5.c.i. above.	OK	OK
f. Has the outcome of <b>Step 1a</b> : Identified realistic and credible alternative scenario(s) to the project activity	EB 39	Ann	Yes.	OK	OK

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done correctly? Please briefly mention the outcome.		10	Alternative c) is not a feasible alternative as per local geographical and /or economical environment.		
g. 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.?	EB 39	Ann 10	Yes.  Alternative b) is strictly regulated for installation per the current regulations in China i.e.: <i>Notice of the General Office of the State Council concerning the Strict Prohibition for Construction of Thermal Power Plants with the Capacity of less than 135 MW within the Grid Connected Area, GUOBANFAMINGDIAN (2002) Document No.6</i>  Consequently, alternative b) is excluded.	OK	OK
h. 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	No.  Alternative b) Construction of a fossil fuel power plant with equivalent amount of annual electricity output is enforced and generally that noncompliance with those requirements in the host party country.	OK	OK
i. Has the outcome of <b>Step 1b</b> : Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national	EB 39	Ann 10	Yes.  Alternative b) is not consistent with mandatory laws and regulations	OK	OK



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and/or sectoral policies and regulations done correctly?					
j. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	Yes. Step 2 is selected.	OK	OK
k. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	Yes.  The three analysis methods suggested by Tools for the demonstration and assessment of additionality are simple cost analysis (Option I), investment comparison analysis (Option II) and benchmark analysis (Option III)	OK	OK
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	It is not applicable to the proposed project.	OK	OK
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	Yes.  It is not applicable to the project.	OK	OK
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	Yes.  The benchmark analysis method based on Project IRR is chosen.	OK	OK
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 39	Ann 10	Yes.	OK	OK

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vi. Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 39	Ann 10	Yes.	OK	OK
I. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10			
i. 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	Yes.  Excluded as the proposed project will earn revenues from not only the CDM related income but also the electricity output.	OK	OK
ii. 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 baseline scenario of the Project is to supply equivalent annual power output from the Grid rather than a new investment project. Thus the Option III is chosen.	OK	OK
m. 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	Not applicable.	OK	OK
n. 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.	EB 39	Ann 10	Not applicable.	OK	OK

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Please specify					
o. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10			
i. Identify the financial/economic indicator, such as IRR, most suitable for the project type and decision context.	EB 39	Ann 10	Yes. Project IRR was identified as the financial indicator.	OK	OK
ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 39	Ann 10	Yes.	OK	OK
iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on	EB 39	Ann 10	Yes. Derived from (d)  With reference to <i>Interim Rules on Economic Assessment of Electric Engineering Retrofit Projects</i> , the financial benchmark IRR of Chinese electricity industry is 8% on Project, which has been used widely in feasibility studies of new power plants, including wind power projects in China.	OK	OK

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bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.					
p. 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	Yes.	OK	OK
i. 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	EB 39	Ann 10	Yes.	OK	OK

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for the selection of public investments in the host country.					
ii. 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. IRR calculation sheet is provided.	OK	OK
iii. Justify and/or cite assumptions.	EB 39	Ann 10	Yes. All indicators are from the approved FSR.	OK	OK
iv. 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
v. 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
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 39	Ann 10	Yes. 6.48% VS benchmark of 8%	OK	OK
q. 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 financial parameters, i.e. Total investment, Annual O&M cost, Tariff and Annual output, are chosen for sensitive analysis with variation range of $\pm 10\%$ .	OK	OK
r. Has the outcome of Step 2 clearly mentioned with justification?	EB	Ann	Yes.	OK	OK

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	39	10	The Project remains financially unfeasible without CDM support		
s. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 39	Ann 10			
i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	Yes.  Huafu Fujin Wind Farm and Huafu Mulan wind farm are identified for analysis.	OK	OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	Yes.	OK	OK
t. 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 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.	EB 39	Ann 10	The rationale of criteria to choose similar project activities is required to be clarified; In PDD Section B.5. Step 4, sub-step 4a, statistics on China wind farm installed capacity in 2005 is not the latest resource and the link of (4) <a href="http://www.china5e.com/news/power/200208/200208220027.html">www.china5e.com/news/power/200208/200208220027.html</a> is expired.	CL-5	OK
u. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed	EB 39	Ann 10	Yes.  The two wind farms above enjoyed higher tariff than the proposed project. Moreover, the two wind farms are funded by international low interest loan		

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project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.			or national soft loan.  Supporting data sources are quoted in the PDD with a specific web link.  However, statistics on China wind farm installed capacity in 2005 is not the latest reference and the webpage of (4) <a href="http://www.china5e.com/news/power/200208/200208220027.html">www.china5e.com/news/power/200208/200208220027.html</a> is expired. Pending on (5.t) above.	Pending	OK
v. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	Yes.  The Project is not common practice within the region	OK	OK
w. Has it been proved that the project is additional?	EB 39	Ann 10	Yes.	OK	OK
<b>A. Prior consideration of the clean development mechanism</b>					
a. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	96	Yes.  The start date defined as 10/06/2008 prior to 15/10/2008 the validation commissioned.	OK	OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a	VVM	96	Yes.	OK	OK



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proposed CDM project activity?			Additional support from CDM was suggested in the FSR to make the Project to be financial attractive.  The supporting evidences including I. the relevant description in the approved FSR II. board decision of CDM implementation		
c. 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 or real action of a project activity begins."?	VVM	97	Pending on close CAR-3 (3.O.iv)	Pending	OK
d. Does the project activity require construction, retrofit or other modifications?	VVM	97	Not required.	OK	OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	97	N/A.	OK	OK
f. 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	98	It is an existing project activity.	OK	OK
g. 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 the UNFCCC secretariat in writing of the commencement of the	VVM	99	Not applicable	OK	OK

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project activity and of their intention to seek CDM status?					
h. 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	100			
i. 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 decisive factor in the decision to proceed with the project, including, inter alia:	VVM	100	CDM is strongly recommended in the approved FSR. Pending on close CAR-3 (3.O.iv)	Pending	OK
a. minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?			The decision was made on 05/01/2008 by the board of directors of 'Yichun Longyuan Hero Asia Wind Power Co., Ltd.'	OK	OK
ii. 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, including, inter alia:	VVM	100			
a. contract with consultants for CDM/PDD/methodology services?	VVM	100	Consultant contract was signed on 15/03/2008.	OK	OK
b. Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or	VVM	100	Pending on CAR-3 above	Pending	OK

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carbon funds)?					
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	100	Yes. Kept by BV Certification.	OK	OK
d. submission of a new methodology to the CDM Executive Board?	VVM	100	Not applicable	OK	OK
e. publication in newspaper?	VVM	100	Not applicable	OK	OK
f. interviews with DNA?	VVM	100	Yes. Bulletin on 56 <sup>th</sup> Meeting of National CDM Board issued by China's DNA on 13/11/2008 provided. <a href="http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2015.pdf">http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2015.pdf</a>	OK	OK
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	100	Not applicable	OK	OK
<b>B. Identification of alternatives</b>					
a. 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	103	Yes. Refer to 4.D.b and 5.c.i. above.	OK	OK
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	103	Not applicable	OK	OK
c. Does the list of alternatives given in the PDD ensure that:	VVM	104	Yes.	OK	OK
i. the list of alternatives includes as one of the	VVM	104	Yes.	OK	OK

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options that the project activity is undertaken without being registered as a proposed CDM project activity?			Refer to 5.c.i. above		
ii. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	VVM	104	Yes. Refer to 5.c.i. above	OK	OK
iii. the alternatives comply with all applicable and enforced legislation?	VVM	104	Yes. Refer to 5.c. above	OK	OK
<b>C. Investment analysis</b>					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	106	Yes.	OK	OK
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	106			
i. the most economically or financially attractive alternative?	VVM	106	Not applied.	OK	OK
ii. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	106	Yes. Concluded based on the IRR calculation (6.48% less than the benchmark of 8%). The input values from the approved FSR are used.	OK	OK

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c. Was this shown by one of the following approaches?	VVM	107	Yes.	OK	OK
i. Demonstrate that the proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity.	VVM	107	Not applicable.	OK	OK
ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	107	Not applicable.	OK	OK
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	107	Yes.	OK	OK
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 41	Ann 45	Yes  The project lifetime is 21 years. And the period of assessment is 21 years per the approved FSR and IRR calculation spreadsheet. It is same as the 3x7 crediting period of the Project.	OK	OK
e. 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 41	Ann 45	Yes.  1 year for construction period and 20 years for operation period per the approved FSR.  The fair value is consistent with that in FSR and	OK	OK

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			included at the end year of the assessment period.		
f. 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 41	Ann 45	Yes.	OK	OK
g. 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 41	Ann 45	Yes.  According to the <i>Design code for wind power plants</i> (DL/T5383 – 2007) worked out by local authorities the period of assessment is prescribed not less than 21 years. The 21 years used in the PDD is reasonable and conservative.	OK	OK
h. 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 41	Ann 45	Yes.  It is included at the end of the assessment period in the IRR calculation spreadsheet.	OK	OK
i. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 41	Ann 45	No. The fair value is 4% same as approved FSR and is conforming to relevant national criteria.	OK	OK
j. 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	109	All parameters and assumptions are same as those in the approved FSR and found appropriate to relevant national standards and criteria.  The main part of total static investment in the FSR had been crosschecked with the already signed contracts of key equipments and engineering services (Ref-12, Ref-20, Ref-21, Ref-22) by Bureau Veritas Certification, and found that the	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
			<p>total value of the contracts is slightly higher than that estimated in the FSR, therefore, the assumptions for the total investment in FSR is reasonable and appropriate.</p> <p>The tariff used in the PDD has been crosschecked with the tariff regulation of the Project issued by NDRC on 23/07/2008 (Code: Fa Gai Jia Ge [2008] No.1876) after the start of the project, which stated that the tariff of the Project is 0.61RMB/kWh (incl. VAT) during its first 30,000 equivalent full load hours, and down to the average tariff that refers the tariff for dominant thermal power plants in Heilongjiang Province. Considering the annual utilization hours of the Project were defined as 2,275 hours in the approved FSR, the validation team can confirm that the above tariff 0.61RMB/kWh (incl. VAT) will be fixed for more than 10 years after the Project commissioning.</p> <p>The annual generation output of the Project was crosschecked with the design parameters of wind turbine manufacturer and found reasonable.</p> <p>The annual O&amp;M cost, taxes, operation lifetime and residual value rate are consistent with relevant national standards and criteria.</p>		
k. Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices?	VVM	109	Cross-checked against official publications and other registered CDM projects in Heilongjiang province. Refer to (5.C.q.c) below.	Pending	OK



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CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
l. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	109	The FSR provided has been reviewed	OK	OK
m. Was the correctness of computations carried out and documented by the project participants assessed?	VVM	109	Yes	OK	OK
n. 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	109	Yes	OK	OK
o. 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:	VVM	110			
i. assessing previous investment decisions by the project participants involved?	VVM	110	Yes.	OK	OK
ii. determining whether the same benchmark has been applied?	VVM	110	The benchmark of 8% is widely used for wind power projects similar to the Project in China.	OK	OK
iii. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	110	No other benchmark rate can be applied in China power sector.	OK	OK
p. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities?	VVM	111	Yes.	OK	OK
q. If yes: (EB38 para.54)	VVM	111			
a. has the FSR been the basis of the decision to	VVM	111	The FSR was completed in Nov.2007. And the	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
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?			borad decision was made on 05/01/2008. It is unlikely that the input values would have materially changed.		
b. 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	111	All parameters used in the PDD are fully consistent with the FSR.	OK	OK
c. 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	111	<p>The annual O&amp;M cost is same as FSR. It is valid and applicable after cross-check with national standard and registered CDM projects in Heilongjiang province.</p> <p>The annual generation is 112,600MWh same as FSR. And it is valid and applicable after cross-check with WTG manufacturer results.</p> <p>For total investment, besides the wind turbine purchase agreement, other main equipment and services contracts are also required to be provided to BVC.</p>	CL-6	OK
<b>D. Barrier analysis</b>					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VVM	113	Not applied in the PDD.	OK	OK
<b>E. Common practice analysis</b>					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
a. Is this a large-scale, or first-of-its kind small-scale project activity?	VVM	117	a large-scale	OK	OK
b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	117	Yes.	OK	OK
c. 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 transnational/global.	VVM	118	Yes. Refer to 5.t. above	OK	OK
d. Was a region other than the entire host country chosen?	VVM	118	Yes. Heilongjiang province	OK	OK
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	118	Pending on above (5.t)	Pending	OK
f. Using official sources and local and industry expertise, was it determined <b>to what extent</b> similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?	VVM	118	Only two similar projects as PDD listed can be identified in Heilongjiang province.	OK	OK
g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	118	Not found through this analysis.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	118	Not applicable.		
<b>6. Monitoring plan</b>					
a. Does the PDD include a monitoring plan?	VVM	120	Yes.	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	120	Yes.	OK	OK
c. Were the list of parameters required by the the selected methodology identified?	VVM	121	Yes	OK	OK
d. Does the monitoring plan contains all necessary parameters?	VVM	121	Yes.	OK	OK
e. Are the parameters clearly described?	VVM	121	Yes	OK	OK
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	121	Refer to (6.g) below		
g. Specific questions per methodology regarding parameters.			The electricity is planned to be measured monthly and aggregated annually in table of B.7.1 while hourly measurement and monthly recording is required in methodology.	CAR-5	OK
h. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	121	The power electricity will supply from the Project to NEPG while it is NCPG in the description of Data and parameters monitored in B.7.1 of PDD.	GL-7	OK
i. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed	VVM	121	Yes.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
CDM project activity can be reported ex post and verified:					
i. data management procedures?	VVM	121	Yes. The procedures are appropriate and practicable.	OK	OK
ii. quality assurance procedures?	VVM	121	Yes. The procedures are appropriate and practicable.	OK	OK
iii. quality control procedures?	VVM	121	Yes. The procedures are appropriate and practicable.	OK	OK
<b>7. Sustainable development</b>					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	123	Pending on LoA from DNA of China	Pending	OK
b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	124	Pending on LoA from DNA of China	Pending	OK
<b>8. Local stakeholder consultation</b>					
a. 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	126	Yes. The local stakeholders including local villagers, officers of Environment Protection, Power Grid, and DRC were invited by the PP. The date of symposium is held on 06/12/2007.	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl.	Final Concl.
			30 pieces of questionnaires were distributed and 100% were returned.		
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	127	Yes.  The potential impacts including noise, waste water and electromagnetic interference were considered seriously.	OK	OK
c. Is the summary of the comments received as provided in the PDD complete?	VVM	127	Yes. Sampled questionnaires have been cross-checked with the description in the PDD -E.7.2.	OK	OK
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	127	Yes.  PDD - E.7.3. There will be no significant negative impacts after specific measures taken as the conclusion of the approved EIA.	OK	OK
<b>9. Environmental impacts</b>					
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	129	Yes.  EIA and its approval made by local EPA are presented.	OK	OK
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	130	Yes. EIA work out by Heilongjiang Environmental Materials Supply Statoin in 06/2007.	OK	OK
c. Does the host Party require an environmental impact assessment?	VVM	130	Yes.	OK	OK
d. If yes, have the environmental impact assessment approved by local government?	VVM	130	Yes. Evidence showed that approved by Heilongjiang Environmental Protection Bureau on 22/08/2007.	OK	OK

**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
<b>CAR-1</b> Please provide LoA from DNA of China	1.A	It has been provided to DOE.	The LoA is verified substantial. Hence the CAR-1 is closed.
<b>CAR-2</b> Please provide LoA from DNA of Austria.	1.A	It has been provided to DOE.	The LoA is verified substantial. Hence the CAR-2 is closed.
<b>CAR-3</b> A complete timeline of implementation of the proposed project and actions which have been taken to achieve CDM registration should be represented as well as the relevant evidence is required to be provided.	3.O.iv	The implementation timeline has been added into B.5 of the PDD and the relevant evidences have already been provided to DOE.	The complete timeline and relevant evidences have been verified satisfactory. Hence CAR-3 is closed.
<b>CAR-4</b> The procedure in ACM0002 ver.07 to identify the baseline scenario has not been correctly applied in PDD version 01.	4.D.b	The description to identify the baseline scenario has been revised in B.4 of the PDD according to ACM0002 ver.07.	The procedure to identify the baseline scenario has been demonstrated and verified to be appropriate. So CAR-4 is closed.

<b>CAR-5</b> The electricity is planned to be measured monthly and aggregated annually in table of B.7.1 while hourly measurement and monthly recording is required in the methodology.	6. g	It has been revised to hourly measurement and monthly recording, which is complied with the methodology.	The revised PDD has been checked and found satisfactory. Hence CAR-5 is closed.
<b>CL-1</b> The environmentally safe, sound technology and initial training applied by the project is required to be described.	3.H.i	The environmentally safe, sound technology and initial training applied by the project had been described accordingly in PDD.	The revised PDD has been checked and found satisfactory. Hence CL-1 is closed.
<b>CL-2</b> Please further explain the purpose of the project activity in section A.4.3 of PDD and include the description of the age and average lifetime of the equipments, forecast installed capacities, load factors and efficiencies.	3. H. ii	The requested content has been added into section A4.3.	Response to CL-2 is satisfactory and the same is closed.
<b>CL-3</b> The operational lifetime and length of first crediting period should be displayed in year and month.	3.X	It has been revised accordingly.	The revision is verified to be appropriate. Hence the CL-3 is closed.
<b>CL-4</b> The source of evidences to exclude solar PV, geothermal, biomass and hydro power need to be represented.	5. c. i	The relevant evidence has been linked in footnote 1.	Response to CL-4 is satisfactory and the same is closed.



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<b>CL-5</b> The rationale of criteria to choose similar project activities is required to be demonstrated; In PDD Section B.5. Step 4, sub-step 4a, statistics on China wind farm installed capacity in 2005 is not the latest resource and the link of (4) <a href="http://www.china5e.com/news/power/200208/200208220027.html">www.china5e.com/news/power/200208/200208220027.html</a> is expired.	5.t 5.u	The rationale of criteria to choose similar project activities has been demonstrated clearly; The resources have been updated.	The revision is verified to be appropriate. Hence the CL-5 is closed.
<b>CL-6</b> For total investment, besides the wind turbine purchase agreement, other main equipment and services contracts are also required to be provided to BVC.	5.C.q.c	The contracts have been provided to DOE for validation.	Response to CL-6 is satisfactory and the same is closed.
<b>CL-7</b> The power electricity will supply from the Project to NEPG while it is NCPG in the description of Data and parameters monitored in B.7.1 of PDD.	6.h	It is a typo mistake and it has been revised accordingly.	The revision is verified to be appropriate. Hence the CL-7 is closed.

VVM-CLEAN DEVELOPMENT MECHANISM VALIDATION AND VERIFICATION MANUAL-Version 01-EB 44, Annex 03- dated 28/11/2008

TOOL FOR THE DEMONSTRATION AND ASSESSMENT OF ADDITIONALITY-Version 5-dated 26/08/2008

EB 41 Annex 45- GUIDANCE ON THE ASSESSMENT OF INVESTMENT ANALYSIS-Version 02-dated 26/08/2008