



VALIDATION REPORT

FUJIAN DONGSHAN AOZAISHAN WIND
POWER DEVELOPMENT CO.LTD.

VALIDATION OF THE
FUJIAN DONGSHAN DAMAOSHAN WIND
POWER PROJECT

BUREAU VERITAS CERTIFICATION
REPORT No. **BVC/CHINA-VAL/0386/2009**

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Great Guildford House, 30 Great Guildford Street
SE1 0ES - London – United Kingdom



VALIDATION REPORT

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Client: Fujian Dongshan Aozhaishan Wind Power Development Co.Ltd.		Client ref.: Mr. Huang Qun	
<p>Summary:</p> <p>Bureau Veritas Certification has made the validation of Fujian Dongshan Damaoshan Wind Power Project of Fujian Dongshan Aozhaishan Wind Power Development Co.Ltd. The Project is a newly built windfarm located at Chencheng Town, Dongshan County, Zhangzhou City, Fujian Province, P.R.China on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.</p> <p>The validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site visit and interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using BVC internal procedures.</p> <p>The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.</p> <p>In summary, it is BVC's opinion that the project correctly applies the baseline and monitoring methodology ACM0002 version 10 and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.</p>			
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Project title: Fujian Dongshan Damaoshan Wind Power Project		Indexing terms <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
Work carried out by: Liao Ling (Team Leader) Zeng Ziyuan (Team Member)			
Work approved by: Robin Wang (Internal Reviewer)			
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Abbreviations

BM	Build Margin
BVC	Bureau Veritas Certification
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CH ₄	Methane
CL	Clarification Request
CM	Combined Margin
CO ₂	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DRC	Development & Reform Commission
ECPG	East China Power Grid
EIA	Environmental Impact Assessment
ERPA	Emission Reduction Purchase Agreement
FSR	Feasibility Study Report
GHG	Green House Gas(es)
GSP	Global Stakeholders Process
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
LoA	Letter of Approval
MoV	Means of Verification
MP	Monitoring Plan
NDRC	National Development Reform Commission
ODA	Official Development Assistance
OM	Operation Margin
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant (project owner)
PPA	Power Purchase Agreement
PRC	People's Republic of China
UNFCCC	United Nations Framework Convention for Climate Change
VVM	Validation & Verification Manual
WTG	Wind Turbine Generator

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1 INTRODUCTION

Fujian Dongshan Aozaishan Wind Power Development Co.Ltd. (hereafter called “**the PP**”) has commissioned Bureau Veritas Certification (hereafter called “**BVC**”) to validate their own CDM project Fujian Dongshan Damaoshan Wind Power Project (hereafter called “**the Project**”) at Chencheng Town, Dongshan County, Zhangzhou City, Fujian Province, P.R. China.

The first validation contract signed with China Quality Certification Center (CQC) on 31/10/2008, and terminated on 20/11/2009.

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

1.1 Objective

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

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

1.2 Scope

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

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

1.3 Validation team

The validation team consists of the following personnel:

Liao Ling Team Leader

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BVC, Climate Change Lead Verifier

Zeng Ziyuan Team Member,

BVC, Climate Change Lead Verifier

2 METHODOLOGY

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

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual issued by the Executive Board at its 55 meeting on 30/07/2010 /Ref-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 validator will document how a particular requirement has been validated and the result of the validation.

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

2.1 Review of Documents

The Project Design Document (PDD) submitted by 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 BVC corrective action and clarification requests the consultant revised the PDD and resubmitted it on 05/08/2010 and the validation findings presented in the report submitted to request for registration relate to the Project as described in the PDD version 3.0.

2.2 Follow-up Interviews

On 15/04/2010 BVC performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the PP, the consultant and local stakeholders were interviewed (see Section 6-References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

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Interviewed organization	Interview topics
Fujian Dongshan Aozaishan Wind Power Development Co.Ltd. (Project owner)	<ul style="list-style-type: none"> ➤ Project background information and CDM consideration. ➤ Project technology, operation, maintenance and monitoring capability. ➤ Project monitoring and management plan. ➤ Stakeholder consultation process. ➤ Project approval status (incl. EIA approval, CDM project approval status) ➤ Wind power development in the area ➤ Government policies related to wind power projects
Local Stakeholder	<ul style="list-style-type: none"> ➤ Project background in details ➤ Stakeholder comments ➤ Social and environmental impact of the project
Longyuan (Beijing) Carbon Asset Management Technology Co.,Ltd (CDM Consultant)	<ul style="list-style-type: none"> ➤ Applicability of selected methodology. ➤ Baseline determination. ➤ Emission reductions calculation. ➤ Emission reduction monitoring plan.

2.3 Resolution of Clarification and Corrective Action Requests

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

Corrective Action Requests (CAR) is issued, where:

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

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

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

2.4 Internal Quality Control

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



3 VALIDATION CONCLUSIONS

In the following sections, the 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 **3** Corrective Action Requests and **9** Clarification Requests.

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

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

3.1 Approval (49-50)

The letter of approval has been received and the following support documentation:

✍ The China's DNA has issued the Letter of Approval (No. 1748) in Feb 2009, authorizing Fujian Dongshan Aozhaishan Wind Power Development Co.Ltd. as the Project Participant and confirmed that the Fujian Dongshan Damaoshan Wind Power Project contributes to China's Sustainable development. /3/

BVC received the above letters from the project participants and does not doubt its authenticity by checking the relevant official information /12/.

The letter of approval does not contain a specific version of both the PDD and the validation report.

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

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

✋ Complying with **para.49, 50 and 127/VVM**, BVC recognizes that Fujian Dongshan Damaoshan Wind Power Project of Fujian Dongshan Aozhaishan Wind Power Development Co.Ltd. is helping country fulfill its goals of promoting sustainable development. The Project will contribute to sustainable development of the local community, the host country and the world by means of:

(a) GHG emission reduction;



(b) Pollutants emission reduction through replacing fossil fuel combustion;

(c) Development both economy and wind power industry in local region.

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

✍ The project activity is Grid connected wind power generation and the development of such Grid connected wind power generation is listed in the Renewable Energy Law (/4/)

✍ Environment Impact Assessment (EIA) approved by Fujian Provincial Environmental Protection Bureau on 06/12/2007. (/7/)

✍ Feasibility Study Report (FSR) of the Project approved by Fujian Provincial Development & Reform Commission (DRC) on 28/03/2008. (/6/)

In the absence of the Project, equivalent amount of annual power output of the Project will be generated and supplied by East China Power Grid (ECPG), which is dominated by the thermal power generation; 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 the investment analysis, addressed in the PDD.

The overall layout of the Project is sound and the geographical (Chencheng Town, Dongshan County, Zhangzhou City, Fujian Province, PRC) 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, BVC hereby confirms that by referring to the information on UNFCCC website i.e.

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

3.3 Project design document (57)

Complying with para.57/VVM, BVC 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 Changes in the Project Activity

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During the site visit, no changes were observed in the Project, including the technology employed, installation capacity and location. Other changes, such as in investment analysis, were found and assessed in the relevant paragraph below.

3.5 Project description (64)

The Project is sited in Chencheng Town, Dongshan County, Zhangzhou City, Fujian Province, PRC. The exact geographical coordinates of the project are East longitude 117°23'7" - 117°24'49" (117.38528° - 117.41361°), and northern latitude 23°35'4" - 23°36'26" (23.58444° - 23.60722°).

The total installed capacity of the Project is 49.5MW with 33 wind turbines of unit capacity 1500kW supplied by Envision Energy (Jiang Ying) Co., Ltd. The estimated annual electricity supplied is about 119,760MWh with a plant load factor (PLF) of 27.6% based on the information of the FSR, which was conducted by a third party and approved by local DRC. Therefore, BVC confirms that the PLF defined in the FSR complies with the requirement of "Guidelines for the Reporting and Validation of Plant Load Factors ver.1" (EB48, annex 11). The Project is expected to result in an annual emission reduction of 99,700tCO₂e during the first seven years of its renewable crediting period.

The process undertaken to validate the accuracy and completeness of the project description was including the document review and cross-check by BVC with the relevant approvals issued by local government.

☺ Complying with para.64/VVM and Annex11/EB48, BVC hereby confirms that the project description in PDD (/2/) is accurate and complete in all respects and that there are no changes to the project activity/design or boundary as compared to the webhosted PDD.

3.6 Baseline and monitoring methodology

3.6.1 General requirement (76-77)

The Project uses the approved consolidated baseline and monitoring methodology ACM0002 version 10– "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" dated 28/05/2009. /Ref-2/

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

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

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

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BVC 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, BVC 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.

3.6.2 Project boundary (80)

The spatial extent of the Project boundary is clearly defined in line with ACM0002 version 10 as the physical, geographical site of Project and all other power plants connected physically to the ECPG that the Project is connected to.

☞ Complying with **para.80/VVM**, BVC hereby confirms that the identification of Project boundary is in line with the delineation of grid boundaries as provided in the “Notification on Determining Baseline Emission Factor of China’s Grid” published by China’s DNA on 02/07/2009 (hereafter called “Notification of China-Grid EF”). (/8/) During on-site visit, via observations of the physical site, BVC hereby confirms that the identified boundary and the selected sources and gases are justified for the Project.

3.6.3 Baseline identification (87-88)

As the Project is the installation of a newly built and grid-connected renewable power plant that delivers the generated electricity to the grid (ECPG), 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 02 published in **EB 50** (hereafter called “Tool-Grid EF”) /Ref-3/.

According to the “Notification of China-Grid EF”, the delineation of grid boundary of the Project is the ECPG. Furthermore, the baseline of the Project determined in the PDD i.e. “electricity delivered to the grid by the Project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources”, as reflected in the combined margin calculations in section B.6.1 of PDD is transparent and deemed to be reasonable.

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

- (a) All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;

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- (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.

3.6.4 Algorithms and /or formulae used to determine emission reductions (92-93)

The steps taken to assess the requirement outlined in paragraph 88 the VVM are described below:

According to the baseline methodology ACM0002 Version 10 and “*Tool-Grid EF*” version 02, /Ref-3/ the baseline emission factor was calculated as following seven steps. In addition, the calculation in the PDD refers to the latest “*Notification of China-Grid EF*” published by China’s DNA on 02/07/2009 /8/ which is most recent information available at the time of CDM-PDD submission to BVC for validation.

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

Step 1.-Identify the relevant electricity systems.

ECPG is selected as the electric power system of the Project as per “*Notification of China-Grid EF*” issued by China’s DNA at the time of commencing this validation. North China Power Grid (NCPG) and Central China Power Grid (CCPG) are the connected electricity system since there are net electricity imports from NCPG and CCPG to ECPG during 2005 to 2007. Option B, weighted average operation margin is chosen to calculate the emission factors for net electricity imports from NCPG and CCPG.

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

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

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

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



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

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

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

Option B, Based on data on the total net electricity generation of all power plants serving the system and the fuel types and total fuel consumption of the project electricity system, is used to calculate simple OM emission factor. The data on electricity generation and auxiliary electricity consumption are obtained from the China Electric Power Yearbook from 2006 to 2008 (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 2006 to 2008. 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 BVC confirms that the calculation can be replicated using the data and parameter provided in the PDD.

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

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

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

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

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

Step 6.-Calculate the build margin emission factor.

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

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

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

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

As per baseline methodology ACM0002 and "Tool-Grid EF", the 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 (tCO₂) are equal to baseline emission factor $EF_{grid,CM,y}$ (tCO₂/MWh) times the net electricity supplied to the grid EG_y (MWh).
- 2) Project Emissions: the project emissions are regarded as zero as per methodology ACM0002 version 10.
- 3) Leakage: no leakage has to be considered as per methodology.
- 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 ECPG is calculated as 0.8825tCO₂e/MWh. Similarly, the build margin emission factor ($EF_{grid,BM,y}$) of the NCPG is calculated as 0.6826tCO₂e/MWh.

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

$$EF_{grid,CM,y} = 0.8825 \times 0.75 + 0.6826 \times 0.25 = 0.8325 \text{ tCO}_2\text{e/MWh}$$

According to the estimated annual electricity delivered to the grid 119,760MWh, the estimated annual emission reductions of the Project is 99,700tCO₂e during the first crediting period represents a reasonable estimation using the assumptions given by the Project.

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

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and

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source of data is correctly quoted and interpreted in the PDD;

- (c) All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- (d) The baseline methodology ACM0002 and “*Tool-Grid EF*” has been applied correctly to calculate project emissions, baseline emissions, leakages and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

3.7 Additionality of a project activity (97)

The additionality of the Project has been assessed in accordance with the “*Tool for Demonstration and Assessment of Additionality*” version 05.2 dated 26/08/2008 (hereinafter called “*Tool-Additionality*”)./Ref-4/

3.7.1 Prior consideration of the CDM (104)

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 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	Evidences verified
11/11/2007	Completion of EIA report	/7/
Nov, 2007	FSR finalized, in which the IRR calculated without CER revenues is lower than the benchmark of 8%, thus the Project is financial unattractive, and if the Project applied for CDM and obtained CDM revenues, the project will be financial attractive	/5/
06/12/2007	The EIA approval letter was issued by Fujian Provincial Environmental Protection Bureau.	/7/
10/12/2007	Based on the conclusion of FSR, considering the high risk of investment, PP decided to apply for CDM to overcome the investment risk to proceed with the Project	/10/
Sep, 2008	The CDM consultation contract was signed between the project owner and Longyuan (Beijing) Carbon Asset Management Technology Co., LTD.	/19/
08/10/2008	The substation construction contract was signed.	/25/
27/10/2008	Substation construction date	/24/
08/11/2008	The wind turbines purchase contract and wind tower purchase contracts were signed.	/11/



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Date	Actions	Evidences verified
01/12/2008	The confirmation for the notification from China DNA was obtained.	/13/
Feb. 2009	The letter of approval (LoA) issued by China's DNA	/3/
21/01/2010	The PDD was made available on UNFCCC website for public comments.	/9/

From above table, BVC was able to verify that the start date of the Project identified in the PDD is **08/10/2008**, on which the PP signed the substation construction contract (/25/). The PDD has been published for global stakeholder consultation on 21/01/2010 after the start date (/9/), so validation procedure should comply with the requirement of new project activity. As the version 02 of *Guidance on the demonstration and assessment of prior consideration of the CDM* (hereafter called "*Guidance-Prior Consideration of CDM*") (/Ref-9/) was published more than six months after the start date of the Project, the requirement of version 01 of *Guidance-Prior Consideration of CDM* /Ref-5/ available at that time was properly followed. The PP informed China's DNA the commencement of the Project on 10/10/2008, within six months of the start date of the Project, and got the confirmation letter from China's DNA on 01/12/2008 /13/. BVC has checked all reliable evidence from the PP, including construction contracts, CDM consultation service agreement, validation service contract and confirmation letter for commence of the Project issued by China's DNA, BVC was therefore able to verify that the CDM benefits have been considered necessary in the decision to undertake the project as a CDM project activity, which are evident in accordance with the *Guidance-Prior Consideration* /Ref-5/.

✎ According to the latest Glossary of CDM terms Ver. 05 /Ref-6/ and "*Guidance-Prior Consideration*" /Ref-5/, BVC confirms that the start date of the Project in the PDD is appropriate and reasonable at that situation.

✎ Complying with para.99-102/VVM, BVC verified this issue which was considered much related to the additionality of the Project and can confirm 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 are the objective foundation on which BVC developed its validation opinions.

3.7.1.1 Historical information on project timeline

The first validation contract signed with China Quality Certification Center (CQC) on 31/10/2008, and terminated on 20/11/2009. The timeline of the Project has been listed in the Table 2 above.

3.7.2 Identification of alternatives (106)

Subsequently, BVC validated the additionality as addressed in the PDD of the Project.

The plausible and credible alternatives to the Project were identified as per the



“Tool-Additionality” Version 05.2 /Ref-4/:

Alternative a: The proposed project not undertaken as a CDM project activity;

Alternative b: The fossil fuel power plant with the same annual electricity output as the proposed project;

Alternative c: Other power plants using other sources of renewable energy with the same annual electricity output as the proposed project;

Alternative d: The East China Power Grid as the provider for the same amount electricity output as the proposed project.

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 (/26/), construction of thermal power plants of 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 availability of local renewable energy resources including Solar PV, geothermal, biomass and hydropower as addressed in the PDD. Realizing the technology development status and the high cost, power generation from solar PV, geothermal and biomass is unfeasible in China. Moreover, there is no hydro power exploitable to develop in the region of Dongshan County. (/28/ /29/ /40/)

☞ Complying with para.106/VVM, BVC was able to verify that the Project scenario and the baseline scenario defined to the Project are credible and hence found **Step 1** of “Tool-Additionality” was applied appropriately.

3.7.3 Investment analysis (114)

The first validation contract signed with China Quality Certification Center (CQC) on 31/10/2008, and terminated on 20/11/2009. BVC compares the input parameters with the previous GSP PDD and found the input parameters on two version of PDD are same.

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

Project IRR of 8% (post-tax) was employed by the Project as benchmark, which is sourced from the “Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects” (/16/) issued by State Power Corporation of China in 2002. BVC has verified this benchmark and confirms that it is widely applied in Chinese power generation industries; therefore, BVC confirms that the benchmark is suitable for the Project.

Before reviewing the IRR calculation, Bureau Veritas Certification firstly validated the basic parameters listed in the PDD in accordance with the Guidance of **Para. 113/VVM**



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a) The input values used in the PDD were all taken from the FSR completed by China Fulin Wind Power Development Co.,Ltd in Nov 2007, (/5/). Based on the FSR, the PP held a Board Meeting on 10/12/2007 (/10/) and decided to seek CDM support based on the outcome of financial analysis. The period of time between the finalization of the FSR and the PP's final decision is thus considered as short.

☞ Therefore, BVC can confirm that the Project meet the guidance of **Para. 113 (a) /VVM**, i.e. the FSR has been the basis of the decision to proceed with the investment in the project, the input values used in the financial analysis are credible and reliable, and it is unlikely in the context of the underlying project activity that the input values would have materially changed.

b) At the same time, BVC compared the input values for the financial analysis in the PDD and FSR, and confirms that all input values used in the financial analysis are sourced from the approved FSR. Therefore, BVC confirms that the investment analysis is in accordance with **Para. 113 (b) /VVM**.

c) Furthermore, BVC has reviewed the IRR calculation sheet and cross checked the relevant regulations/laws/evidences and confirmed that:

➤ **Tariff**

The Project apply two-phase tariff in the investment analysis according to the approved FSR. Complying with the requirement in EB53/Annex 32, BVC studied the tariff policies in China.

According to the public available information, there are no changes in the policies which impact the tariff applicable to the project activity. The precise nature of national policies on wind power industry existed after 11 December 1997 or after 11 November 2001 is provided below. All the policies issued by the government are aiming to provide priorities of connection with grid for wind power projects, to increase share of domestic wind power equipment and reduce wind power generation cost, and to maintain the investment incentives. The wind power projects grew rapidly in China in the past several years. The relevant tariff policies were shown in the following Table.

Table 4 Tariff policy applied in China



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No	Policy description	Issued institution	Implementation date of the policy
Wind policy issued prior to the Power Sector Reform (March 2002)			
1	Chengfeng Plan and Double Increase Plan /49/. (It is to promote the joint venture of domestic and foreign corporations for wind equipment manufacturing.)	National Planning Commission (one of the former organizations of NDRC)	March 1996
2	Opinions on Accelerating Domestic Wind Power Generation Technology /50/ (Guo Jing Mao Zi Yuan [2000]122), It supported the demonstration wind power projects that use domestic wind power generation technologies.	State Economic and Trade Commission (one of the former organizations of NDRC).	February 2000
Note: The objective of policies 1# and 2# was not to determine the feed-in tariffs for a nascent wind power generation industry. At that time the only wind farm projects in China were two small demonstration projects. Tariffs were given on a project-by-project basis.			
Wind policies after the Electric Power Sector Reform Programme (March 2002)			
1	Tariff approval for wind project (Ji Ji Chu [2002] No. 2692) /51/	National Development and Plan Committee	10 December 2002
2	Tariff approval, Fa Gai Jia Ge [2006]2908 /52/	National Development and Reform Committee	22 Dec. 2006
3	Tariff approval for renewable power projects, Fa Gai Jia Ge [2007]1260 /33/	National Development and Reform Committee	09 June 2007
4	Tariff approval, Fa Gai Jia Ge [2007]3303 /34/	National Development and Reform Committee	03 Dec. 2007
5	Tariff approval, Fa Gai Jia Ge [2008]1876 /34/	National Development and Reform Committee	23 July 2008

The development of wind power in China started in 80's last century that lagged far behind the developed countries. During that period, the demonstration projects and experimental projects have been exploited with the loan support from Germany, Spain and Denmark /53/. For wind powers in China, the experiences on tariff mechanism had been affected further by developed countries.

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Table 5 Feed-in tariff policy for wind power projects in other countries

Country	Feed-in tariff policy
Germany	For wind energy an 'initial tariff' is fixed for at least five and up to 20 years and then is reduced to a 'basic tariff' depending on the local wind conditions /54/.
Netherlands	Tariff is for the first certain full-load hours of electricity generation is different from the period after that /55/.
Denmark	Until the end of 2002, a certain amount of full-load hours was remunerated with a higher tariff than the rest of the electricity generated ¹⁵ .
Portugal	The operators of wind-, hydro-, and PV-power plants receive fixed feed in tariffs for the first 15 years or for a certain amount of electricity generated per MW of plant capacity ¹⁵ .
France	The operators of onshore wind turbines receive fixed-in tariffs for a time-frame of 15 years. During the first 10 years a remuneration of 8.2 euro cents/kWh is paid and during the following 5 years of support the level of remuneration is determined by the average amount of electricity generated during the first 10 years (measured in full-load hours per year), according to this amount the tariff level varies between 2.8 and 8.2 euro cents/kWh for the rest of the support period ¹⁵ .
Cyprus	Operators of wind turbines with a capacity of more than 30kW receive 9.48 euro cents/kWh for a period of 5 years. During the following 10 years the level of tariff depends on the local wind conditions and ranges between 4.91 and 9.48 euro cents/kWh ¹⁵ .
Finland	The guaranteed price for wind power is planned to be introduced in earl 2010 for a period of 12 years /56/.
China	For wind power projects, 30000 operation hours is equivalent to 10-15 years of operation depends on the different annual full load operation hours (2000-3000 hours)

Therefore, China had followed the mature experiences on the tariff mechanism of developed countries such as Germany, Spain and France etc., under the commercial rule and implemented the stage tariff for wind powers, after the State Council approved Reform Plan of Power System was implemented on 2002 /31/.

The formal tariff mechanism for wind power in China was implemented on 10 Dec. 2002 /51/, in which the stage tariff mechanism had been determined that the fixed tariff was adopted for the first 30000 hours and the average tariff of local power grid



after the 30000 hours. Since 2002, all the tariff approval issued by the NDRC for the wind power projects in the whole country have explicitly stated that different tariff was applied for different operation period: fixed tariff for the first 30000 operation hours period, and the average tariff of the local power grid applied for the after 30000 operation hours period.

In conclusion, it is a fact that the two-phase tariff policy for wind power project has been applied in the Chinese ever since 2002. As per the Annex 32 of EB 53, through discussion above, there is no change in the policy of applying different tariff for before and after 30000 hours operation period. And the two-phase tariffs applied in the Project are considered reliable and reasonable.

The tariff of 0.627RMB/kWh (incl. VAT) for the first 30,000 equivalent full load hours and 0.45RMB/kWh (incl. VAT) for the period thereafter used in the PDD is taken from FSR which was completed by a qualified third party.

Before the FSR was finalized in Nov 2007, there was one public guiding tariff notification available in Fujian Province issued by NDRC on 09/06/2007 (Code: Fa Gai Jia Ge [2007] No. 1260 /33/). There was only one wind power project in Fujian Province (Dongshan Wu Jiao Wan Wind Power Project) in this tariff document, the guiding tariff for the of its first 30,000 equivalent full load hours was 0.585RMB/kWh (incl. VAT), and down to the average tariff of local thermal power plants after 30,000 hours. Based on the different project conditions, the design institute estimated the tariff for the Project would be 0.627RMB/kWh (incl. VAT) for the first 30,000 equivalent full load hours, and the tariff after 30,000 hours would be 0.45RMB/kWh (incl. VAT). Considering the tariff document clearly present the guiding tariff was only suitable for the first 30,000 equivalent full load hours, the two-phase tariff rule adopted in the FSR is deemed reasonable.

According to the later tariff notification issued by NDRC on 03/12/2007 (Fa Gai Jia Ge [2007]No. 3303) and on 23/07/2008 (Fa Gai Jia Ge [2008] No. 1876) /34/, the guiding tariff for the wind power project in Fujian Province is all 0.585RMB/kWh (Incl. VAT) for its first 30,000 equivalent full load hours, which is lower than the tariff of the Project estimated in the FSR. In addition, according to the latest tariff notification issued by NDRC on 20/07/2009 (Fa Gai Jia Ge [2009]1906, /35/), China wind power projects are classified to 4 categories (I, II, III, IV) according to their regional wind resource and construction status. Fujian Province belongs to category IV, thus the tariff of wind power projects in Fujian Province is 0.61RMB/ kWh (Incl. VAT). Furthermore, BVC has checked the tariff notification for wind power projects in Fujian Province published by Fujian Price Bureau (Min Jia Shang [2010] 47) /36/, and found that the tariff for the wind power projects in Fujian Province are approved at 0.61RMB/kWh (incl. VAT).

Therefore, the tariff of 0.627RMB/kWh (incl. VAT) for the first 30,000 equivalent full load hours employed in FSR is conservative and appropriate.



Furthermore, according to the “The Implement Status of Electricity Price in 2007” /39/, the average tariff in Fujian Province was 0.36505RMB/kWh. Therefore, the tariff of 0.45RMB/kWh (incl. VAT) for the period after 30,000 equivalent full load hours employed in FSR is conservative and appropriate.

In addition, complying with the requirement in EB53/Annex 32, BVC compared the Project with the CDM Project 2589 (Fujian Zhangpu Liuaao 3rd phase Wind Power Project) which adopted the highest applicable tariffs in Fujian Province.

Since the CDM Project 2589 commission on Jan.2008, prior than the Project, the investment environment was different from the situation the Project faced. For quantitative analysis, BVC applied the unit investment (10253RMB/kW), annual O&M costs (0.127RMB/kWh) and tariff (0.626RMB/kWh, Incl.VAT) of CDM Project 2589 which could reflect the investment environment to the Project IRR Spreadsheet. The hypothetical IRR is 6.87%, even lower than the benchmark with two-phase tariffs applied in the FSR and PDD version 02; and still below the benchmark. BVC hereby is able to conclude that the Project is still not financial attractable under the same situation when the CDM Project 2589.

➤ **Total static investment**

The total static investment per unit in the approved FSR is 9160RMB/kW (about 916€/kW), lower than the value public available (€1,000/kW to €1,350/kW) /37/. BVC also compared the input parameters used in the financial analysis with the data for other similar registered CDM wind power project in Fujian Province, as shown in below table:

Table 6 Similar registered CDM wind power project in Fujian Province



Ref.	Project Title	Capacity (MW)	Full time hours	Total Investment (M RMB)	Unit Investment (RMB/kW)
0995	Fujian Dongshan Wujiaobay 30MW Wind Power Project	30.0	2179	316.7	10557
0388	Fujian Zhangpu Liuaio 30.6 MW Wind Power Project	30.6	2203	282.99	9248
1177	Fujian Pingtan Changjiangao 100 MW Wind Power Project	100.0	2596	841	8410
1172	Fujian Nanridao 16.15MW Wind Power Project	16.15	2655	146.6	9077
1318	Fujian Zhangpu Liuaio 45MW Wind Power Project	45.0	2213	418.96	9310
2589	Fujian Zhangpu Liuaio 3rd phase Wind Power Project	26.0	2103	266.57	10253
The Project	Fujian Dongshan Damaoshan Wind Power Project	49.5	2419	453.46	9161

As indicated in above table, the total static investment of the Project is within the range of other similar registered CDM wind power projects in Fujian Province (8,410RMB/kW to 10,557RMB/kW) and deemed reasonable.

BVC reviewed the WTG Purchase Contract and the wind tower purchase contracts (/11/) signed with the equipment suppliers and construction contracts /25/ which comprise more than 99% of the total static investment in the FSR and found that the already signed contract values are a little higher than those estimated in the approved FSR. Hence, BVC is able to confirm that the total static investment in the PDD is reliable and conservative.

➤ **Assessment period**

The assessment period of 21 years (including 1 year construction) was selected reasonably in the PDD, which is same with the lifetime of the WTG and reliable. The assessment period in the GSP PDD is 25years (1year construction period and 24 years of operation period), CL-7 was raised to ask PP to clarify the reasonable of assessment period, and then the assessment period was revised to 21years (including 1 year construction). BVC has checked the WTG purchase contract and found that the lifetime of WTG is 20 years, and the assessment period of 21 years is in line with the requirements of *"Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects"* /16/.

➤ **Annual supplied power**

The annual supplied electricity of the Project was based on the wind resource history data from 1955 to 2006 of the local area and the on-site measurement of



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wind resource data from Oct 2006 to Sep 2007, and optimized by WASP and Windfarmer software as stated in FSR. The parameters for determining the annual supplied electricity has been cross checked with the design parameters of wind turbine manufactured by Envision Energy (Jiang Ying) Co., Ltd /11/ and found consistent. Therefore the supplied electricity is found appropriate.

As indicated in above table 3, the operation hours of the Project are within the reasonable range of other similar registered CDM wind power projects in Fujian Province.

The plant load factor of 27.6% (annual utilization hours of 2,419h) is determined by a qualified third party contracted with the PP and approved by local DRC. Therefore, BVC confirms that the plant load factor defined in the FSR complies with the requirement of "Guidelines for the Reporting and Validation of Plant Load Factors ver.1" (EB48, annex 11) /Ref-7/.

➤ **Annual O&M cost**

The annual O&M cost consists of annual repairing and material fee, staff salary and welfare, insurance and miscellaneous expenses, which was studied based on the "Codes on Compiling Feasibility Study Report of Wind Farms" issued by NDRC on 25/05/2005 and "*Economic assessment method and parameters for construction projects*", 3rd edition (/14/).

The salary is calculated as the number of employees (10) multiplied with the average annual salary (48,000RMB per person) and the welfare fee (41% of salary) is calculated in line with policy in China.

For maintenance costs and miscellaneous costs in annual O&M cost, BVC also compared the components of O&M costs with the data of other similar registered CDM wind power projects in Fujian Province, as shown in below table:

Table 7 Annual O&M of wind projects in Fujian

ref.	Project title	Installed Capacity (MW)	Annual Repair/Material Costs (% Total Investment)	Annual Miscellaneous Costs (RMB/kWh)	Annual O&M (RMB/kWh)
0995	Fujian Dongshan Wujiabao 30MW Wind Power Project	30	---	---	0.17
0388	Fujian Zhangpu Liua 30.6 MW Wind Power Project	30.6	---	---	---
1177	Fujian Pingtan Changjiangao 100 MW Wind Power Project	100	2.97%	0.02	0.13



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ref.	Project title	Installed Capacity (MW)	Annual Repair/Material Costs (% Total Investment)	Annual Miscellaneous Costs (RMB/kWh)	Annual O&M (RMB/kWh)
1172	Fujian Nanridao 16.15MW Wind Power Project	16.15	---	---	---
1318	Fujian Zhangpu Liua 45MW Wind Power Project	45	---	---	0.13
2589	Fujian Zhangpu Liua 3rd phase Wind Power Project	26	1.89%	0.01	0.127
the Project		49.5	2.62%	0.02	0.14

As indicated in above table, the repair/material costs, miscellaneous costs and the annual O&M cost of the Project are within the range of other similar registered CDM wind power projects in Fujian Province and deemed reasonable.

Especially, the increasing rate of maintenance of the Project is 5%. According to the *Economic Evaluation Methods and Parameters of Construction Project* /15/, the maintenance costs rate can increase over time due to more maintenance being necessary as the equipment aging. As clarified by the designer of FSR /48/, the maintenance increase rate was considered due to consideration the seaside situation which could canker the equipment. BVC also crosscheck other CDM Projects and found the increasing rate of maintenance in CDM Project 3798 (Jilin Longyuan Tongyu Phase III Wind Power Project) is 6%, and in CDM Project 3436 (Guangdong Chaonan Shalong Wind Power Project) is 4%. BVC is hereby able to conclude that the increasing rate of maintenance of 5% adopted by the Project complied with regulation and reasonable.

The average annual O&M cost of 16.88 Million RMB (0.14RMB/kWh) was studied based on the “Codes on Compiling Feasibility Study Report of Windfarms” issued by NDRC on 25/05/2005 and “*Economic assessment method and parameters for construction projects*”, 3rd edition (/14/). According to the “Wind Energy – the Facts” implemented by European Wind Energy Association (EWEA) published in Mar. 2009, the O&M costs are generally estimated to be around 1.2 to 1.5 eurocents (c€) per kWh (0.12RMB/kWh to 0.15RMB/kWh) of wind power produced /37/, the annually average O&M cost of the Project was calculated as 0.14RMB/kWh, within the reasonable range, therefore, BVC can confirm that the annual O&M cost estimated in FSR is appropriate.

➤ **Interest rate**

A post-tax benchmark is applied for the investment analysis of the Project. BVC has checked the IRR calculation sheet and confirms that the interest has been taken into



account in the calculation of income tax. Furthermore, BVC has checked the loan contract signed between the PP and the bank /27/, and confirms that the **interest rate** used in the investment analysis is the same one as the loan contract and prevailing commercial interest rates in China; furthermore, the **debt-equity ratio** estimated in the FSR was also approved by local DRC, and the loan contract value shows that the debt-equity ratio taken from the FSR is consistent with actual capital situation that PP raising. Therefore, BVC confirms that the interest payable in the calculation of income tax is appropriate.

➤ **Depreciation**

BVC has checked the IRR calculation sheet and confirm that **depreciation** has been deducted in estimating gross profits on which tax is calculated, and be added back to net profits for the purpose of calculating the financial indicator. BVC confirms that the depreciation calculated complies with “Economic Evaluation Method and Parameters for Project Construction” 3rd edition. (/14/)

The depreciation period of 8 years and linear depreciation calculation are found in compliance of the People's Republic of China Enterprise Income Tax Law Implementation Regulations (/21/), which indicates that the depreciation period for the equipments should be no less than 10 years, and for fixed assets perennial in the strong vibration, high corrosion environment, the depreciation period can be shorten to no less than 60% of the prescript period. Considering the Project sited on Dongshan Island besides sea, the depreciation period of 8 years is found appropriate and reasonable.

➤ **Taxes**

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

The VAT rate of 8.5% complies with the Notice of Value added Tax Policy Regarding Products Using Certain Synthesized Resources and Other Products /20/ issued by the Ministry of Finance and the State Administration of Taxation in Dec. 2001 and effective from 01/01/2002.

The income tax of 25% complies with Enterprise Income Tax Law of China /21/ which was published in Nov, 2007 and was effective from 01/01/2008.

✎ In summary, based on the above reliable data sources, BVC was able to confirm that the input values from the approved FSR are valid and applicable at the time of making the investment decision. Therefore, BVC confirmed that the input values used in the PDD meet the guidance of **Para. 113 (c) /VVM**.

Besides assessment of period discussed above, in the GSP PDD, the IRR without CDM revenues is 7.10%. But there were some mistakes in the IRR calculation spreadsheet, including operation period and interest payable. BVC has raised CAR-2, CL-7 in the

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appendix A to require PP to revise the IRR calculation spreadsheet accordingly. BVC has reviewed the revised IRR calculation spreadsheet and found that all findings can be closed after revision had been done.

Based on the above conclusion, BVC reviewed the IRR calculation and found that the calculation is correct and in accordance with “*Guidance on the assessment of investment analysis*” Version 03.1 /Ref-8/ (as the annex of “*Tool- Additionality*” Ver.05.2). As it shows, without CDM revenue, the project IRR of the Project is 7.44%, which is lower than the benchmark (8%). (/17/)

Considering the CERs sales revenues (/5/), the project IRR of the Project can be improved to reach 10.71% exceeding the benchmark.

In the step of Sensitivity analysis, four financial indicators were identified with a variation range over $\pm 10\%$ for evaluation:

- * [a]. Static investment
- * [b]. Annual O&M cost
- * [c]. Electricity Tariff
- * [d]. Annual electricity output (PLF)

BVC reviewed the sensitivity analysis in the FSR and confirmed that the indicators identified and the variation range employed in the PDD are consistent with the approved FSR and also in accordance with the requirement of Tool for demonstration and assessment of additionality Version 05.2 /Ref-4/ and provision in the regulation i.e. the “Codes on Compiling Feasibility Study Report of Windfarms” issued by NDRC on 25/05/2005. (/14/) Then, BVC reproduced the calculation based on the IRR spreadsheet and worked out the same outcomes as it shows.

Furthermore, a critical assessment was presented in the PDD to show to what extent the IRR of the project could reach the benchmark. As a result, in the following scenarios the IRR will reach the benchmark:

- The static investment decreased by about 2.75%, or
- The annual O&M cost decreased by 11.40%, or
- The tariff increased by about 2.65%, or
- The annual electricity output (PLF) increased by about 3%

However, all these four parameters will not fluctuate at above ranges, because:

[a], [b].

As described above, BVC reviewed the WTG Purchase Contract and the wind tower purchase contracts (/11/) signed with the equipment suppliers and construction contracts /25/ which comprise more than 99% of the total static investment in the FSR and found that the already signed contract values are a little higher than those estimated in the approved

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FSR. And considering increasing price level of material price and manpower cost (/30/), BVC can confirm that it is unlikely that the static investment decreased by 2.75% or the annual O&M cost decreased by 11.40%.

[c]

As presented in the sensitive analysis, both electricity tariffs before and after 30,000 equivalent hours increased by 2.65%, the project IRR would reach the benchmark.

As per wind power tariff document [2009]1906 (/35/) and later wind power tariff document in Fujian Province (/36/), the tariff of wind power projects in Fujian Province is all 0.61RMB/kWh. As the tariff of the Project has not been approved yet, and the guiding tariff of 0.61RMB/kWh (incl. VAT, tariff document [2009]1906 /35/) is estimated to be applied and fixed for the Project for the first 30,000 equivalent hours, which is lower than the estimation of 0.627RMB/kWh (incl. VAT) in the FSR.

Considering the tariff for the first 30,000 equivalent hours is estimated to be fixed as 0.61RMB/kWh (incl. VAT), the tariff for the rest operation period should be 0.614RMB/kWh (incl. VAT) to make the project IRR reach the benchmark (8%), which is 68.2% higher than the currently local average tariff /39/. Even the 0.627RMB/kWh (incl. VAT) was applied in the first 30,000 equivalent hours, the tariff for the rest operation period should be 0.537RMB/kWh (incl. VAT) to make the project IRR reach the benchmark, which is 47.1% higher than the currently local average tariff /39/. Therefore, BVC is able to confirm that the 47.1% or even 68.2% increase of the average tariff would not likely to appear.

So BVC confirms that the tariff would not increase to make the project IRR reach the benchmark.

[d]

The annual electricity output is estimated by a third party with the qualification in power sector viz. China Fulin Wind Power Development Co.,Ltd based on the latest 52 years historical data of local wind resources and on-site measured wind data. The annual supplied power was based on the long-term wind resource with considering the variation and it reflects the optimal available wind source.

BVC compared the estimated annual operation hours of the Fujian Dongshan Wujiaobay 30MW Wind Power Project (Ref. 0995, referred to as "Wujiaobay Project") which is also located in Dongshan County and nearest to the Project, it utilized similar wind source with the Project. The estimated annual operation hours of the Project (2419hours) are 11% higher than the estimated annual operation hours of the Wujiaobay Project (2179hours).

Furthermore, as the Project was put into operation since 31/08/2009 /45/, BVC also verified the actual electricity generated by the Project from 31/08/2009 to 27/08/2010 (361days) to compare the actual electricity generated with the estimation. As presented in the reading records /46/ and the electricity transaction notes issued by the grid company /47/, the net electricity supplied to the grid by the Project is 114,711MWh, lower than the estimation (119,760MWh *361/365 = 118,447MWh).

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Therefore BVC confirms that the average annual electricity output estimated in the PDD is conservative and unlikely increase by 3% for the Project life time.

☞ Complying with para.113/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 unfeasible.

3.7.4 Barrier analysis (118)

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

3.7.5 Common practice analysis (121)

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

Fujian Province is selected as the geographical scope of the common practice analysis, and BVC confirms that the geographical scope is appropriate since the investment circumstance and regulations related to wind power of each province in China are significant different.

Subsequently, Bureau Veritas Certification identified the similar projects in terms of:

- a) Windfarm in Fujian Province,
- b) Non-CDM projects

Following these criteria, BVC verified the windfarms as identified in the PDD by cross-checking the public statistics i.e. “*Statistics of wind power installed capacity in China*” (hereafter refer to as SWPC) Version 2007 dated 28/02/2008 conducted by Mr. Shi Pengfei, the authoritative Expert in the wind power sector(/18/), and the data sources stated in the PDD which from the website of the price bureau of China and Fujian Province.

As the public information presents, two projects are identified as similar project with the above criteria. And these two projects are demonstration projects early in 2000, higher tariff were enjoyed by them /41/. Hence there are essential distinction between the Project and these two projects.

They are essentially different from the Project in the investment environment. BVC 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.121/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.

3.8 Monitoring Plan (124)

The Project uses the approved consolidated monitoring methodology ACM0002 version 10 for grid-connected electricity generation from renewable sources.

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Applicability of this methodology is justified in PDD as it involves grid connected renewable power generation using wind energy. Refer discussions on the validity of the methodology at Section 3.5.1 above. BVC hereby confirms that the monitoring plan complies with the requirements of the methodology.

According to ACM0002 version 10, no leakage need to be considered for the Project since no energy generating equipment is transferred from or to the site, viz. $LE_y=0$. As mentioned above, there is not backup power in the Project, so $PE_y=0$, and no project emissions parameter is needed to be monitored

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

The combined margin emission factor is determined ex-ante based on the most recent information available. Accordingly the monitoring plan includes quantity of electricity exported to and quantity of electricity imported from the grid. According to the monitoring plan, the net electricity supplied to the grid will be monitored. And the net electricity supplied to the grid is the difference of electricity exports to the grid (EG_{export}) and imports from the grid (EG_{import}), which can be monitored by a bidirectional meter (accuracy class is no less than 0.5) installed at the Project site. The electricity will be continuously measured and recorded monthly. A backup meter will be also installed at the Project site. Both meters are bidirectional and have same accuracy class. Data may be verified against the receipts of sales. The meters are expected to be calibrated annually. BVC is of the opinion that the monitoring plan complies with the requirements of the methodology.

By reviewing the provided training plan /38/ and on-site interview with the PP, BVC confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure the emission reductions achieved by the Project can be reported ex post and verified.

☞ Complying with para.124/VVM, BVC hereby confirms that the project participants are able to implement the monitoring plan.

3.9 Sustainable development (127)

China's DNA confirmed the contribution of the project to the sustainable development of the host Party. Refer to item 3.1 of this report.

3.10 Local Stakeholder consultation (130)

The PP held a stakeholder meeting on 05/12/2007 and carried out a public survey from

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December 2007 to March 2008 for inviting comments. The stakeholders consist of local farmers, residents and so on. The PP introduced the Project to local stakeholders and invited comments from the local stakeholders prior to the publication of the PDD on the UNFCCC website. The survey was conducted by distributing 20 copies of questionnaires and collecting responses from all interviewee from local villagers and residents near the project area, and 20 questionnaires were recovered with 100% response rate. (/23/)

The survey shows that the Project has strong local support amongst the public. All the stakeholders support the construction of the project. They all believe the Project will promote the local economic development and agree the project construction.

No negative comments received. BVC interviewed the local stakeholders during the on-site visit of the validation process and received the consistent responses. Furthermore, BVC also assessed the questionnaires answered by the stakeholders, and found the adequacy of the local stakeholder consultation.

☞ Complying with para.130/VVM, BVC hereby confirms that the local stakeholder consultation was performed, the Project will benefit to the local sustainable development without positively affect to the local stakeholders.

3.11 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The first validation contract signed with China Quality Certification Center (CQC) on 31/10/2008, and terminated on 20/11/2009.

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. (/9/)

No comments were received during this period and previous period.

☞ Complying with para.174/VVM, BVC published the project documents on the UNFCCC CDM website on 21/01/2010 and invited comments within 19/02/2010 by Parties, stakeholders and non-governmental organizations.

3.12 Environmental Impacts (133)

BVC has ensured that the Environmental Impact Assessment (EIA) was carried out by Xiamen New Green Environment Development Co. Ltd. on 11/11/2007 and approved by the Fujian Provincial Environmental Protection Bureau on 06/12/2007. (/7/)

The environmental impact results from the Project have been identified and analyzed in the PDD. By checking the EIA report, BVC is able to ensure that the environment impacts occurs mainly in the construction period due to waste water, dust and exhaust gas, noise pollution and solid waste. All above impacts would be within an acceptable limit by carrying out corresponding mitigation measures as per the statement of the EIA.

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

4 VALIDATION OPINION

BVC has performed a validation of the Fujian Dongshan Damaoshan Wind Power Project of Fujian Dongshan Aozai Shan Wind Power Development Co. Ltd. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

Project participant used the latest *Tool for demonstration and assessment of additionality* (version 05.2), *Paragraph 54 of EB 38* and the *Guidance on the demonstration and assessment of prior consideration of the CDM* (version 01) to demonstrate the additionality of the Project. In line with this tool, the PDD provides analysis of financial barriers to determine that the project activity itself is not the baseline scenario. The latest *Tool to calculate the emission factor for an electricity system* (version 02) is also applied to determine the emission factor of ECPG.

By synthetic description of the project, the Project is likely to result in reductions of GHG emissions partially. An analysis of the financial barriers demonstrates that the 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 3.0) and the subsequent follow-up interviews have provided BVC with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of 'Fujian Dongshan Damaoshan Wind Power Project' as CDM project activity.

Signature:



Name: Liao Ling (Team Leader)

Date: 19/09/2010

Signature:



Name: Robin Wang Jing

Date: 19/09/2010

5 REFERENCES

Category 1 Documents:

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

/1/	PDD Version 1.0 for GSP, dated 18/01/2010
/2/	PDD Version 3.0 dated 05/08/2010
/3/	Letter of Approval from DNA of China (Host country) dated Feb 2009 (No. 1784)
/4/	National Renewable Energy Law issued by NDRC of China effective from 01/01/2006. http://www.windpower.org.cn/news/links/fl_2005_0510_02.htm
/5/	Feasible Study Report (FSR) conducted by China Fulin Wind Power Development Co.,Ltd in Nov 2007.
/6/	The FSR approval issued by Fujian Provincial Development & Reform Commission (DRC) on 28/03/2008 (Code: Min Fa Gai Jiao Neng [2008] No.210)
/7/	EIA report conducted by Xiamen New Green Environment Development Co. Ltd. on 11/11/2007 and Approval issued by Fujian Provincial Environmental Protection Bureau on 06/12/2007
/8/	Notification on Determining Baseline Emission Factor of China's Grid dated on 02/07/2009. http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2413.pdf
/9/	The website of PDD was made available for public comments (GSP) on 21/01/2010. http://cdm.unfccc.int/Projects/Validation/DB/Z8B78GC5OA3YFN15UQZEV3ZTEQKI V8/view.html
/10/	PP's Board Meeting Minutes made on 10/12/2007.
/11/	WTG Purchase Contract signed with Envision Energy (Jiang Ying) Co., Ltd on 08/11/2008 and Wind Tower Purchase Contract signed with Jiangsu Yu Jie Steal Machine Co., Ltd. and Wind Tower Purchase Contract signed with Nantong Hong Bo Wind Power Equipment Co., Ltd.
/12/	Information on approval of the Project issued by China's DNA on 30/12/2008. http://cdm.ccchina.gov.cn/website/CDM/pdf/Item_new/Item_new3896.pdf
/13/	Notification of intention to seek CDM status dated 10/10/2008 and confirmation letter issued by China DNA on 01/12/2008
/14/	The Codes on Compiling Feasibility Study Report of Wind Farms issued by NDRC on 25/05/2005. http://www.windpower.org.cn/news/links/js_2005_0508.htm
/15/	"Economic Evaluation Method and Parameter of Construction Projects" edition 3rd issued by NDRC in 2006



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/16/	Data source of Benchmark (Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects)
/17/	IRR calculation spreadsheet of the Project
/18/	"Statistics of wind power installed capacity in China" conducted by Professor Shi Pengfei Version 2007 dated 28/02/2008 http://www.gsec.gov.cn/ClassNews.asp?newsID=664
/19/	CDM Service Agreement signed with Longyuan (Beijing) Carbon Asset Management Technology Co.,Ltd. in Sep, 2008
/20/	Notice of Value added Tax Policy Regarding Products Using Certain Synthesized Resources and Other Products issued by the Ministry of Finance and the State Administration of Taxation in Dec. 2001
/21/	The People's Republic of China Enterprise Income Tax Law Implementation Regulations, published in Nov, 2007 and effect from 01/01/2008 http://www.gov.cn/zwgk/2007-12/11/content_830645.htm
/22/	Emission Factor calculation spreadsheet
/23/	Evidence of 20 pieces of stakeholder survey questionnaires
/24/	Starting Road Construction Order issued by supervision company on 25/10/2008 Starting Substation Construction Order issued by supervision company on 27/10/2008
/25/	Substation Construction Contract signed on 08/10/2008
/26/	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. http://www.gov.cn/gongbao/content/2002/content_61480.htm
/27/	Loan Contract signed between the PP and the bank on 06/03/2009
/28/	Shui bo, Development of Renewable Energy, http://scitech.people.com.cn/GB/5347113.html
/29/	Development of Biomass Generation, http://www.sdpc.gov.cn/zjgx/t20071123_174054.htm
/30/	Building Materials Price Keep Rising, Ministry of Industry and Information Technology of China http://www.miit.gov.cn/n11293472/n11295125/n11299425/12164560.html
/31/	"Notice of National Council Issued about the Power System of Organization Reform Programme" (National issued [2002] No. 5)
/32/	"Notice of improving the policy of on grid tariff of wind power" (Fa Gai Jia Ge [2009] No.1906) http://jgs.ndrc.gov.cn/jggs/dljg/t20090727_292842.htm
/33/	Document issued by NDRC on 09/06/2007, (Code: Fa Gai Jia Ge [2007] No. 1260)



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	http://www.hebwj.gov.cn/upfiles/xy_col32gjc___20070718164220007126.htm
/34/	Document issued by NDRC on 03/12/2007, (Code: Fa Gai Jia Ge [2007] No. 3303) http://jgs.ndrc.gov.cn/zcfg/t20080218_192021.htm Document issued by NDRC on 23/07/2008, (Code: Fa Gai Jia Ge [2008] No. 1876) http://jgs.ndrc.gov.cn/zcfg/t20080813_230722.htm
/35/	Tariff notification for wind power projects in China published by NDRC on 20/07/2009 (Document No. Fa Gai Jia Ge[2009] No.1906)
/36/	Guiding Tariff for Wind Power Projects in Fujian Province, 2010 http://www.fjjg.gov.cn/fjwjj/jgfw/qsjgzc/webinfo/2010/03/1270177118117434.htm
/37/	Public available information about O&M costs for Wind Turbines http://www.wind-energy-the-facts.org/en/part-3-economics-of-wind-power/chapter-1-cost-of-on-land-wind-power/operation-and-maintenance-costs-of-wind-generated-power.html For Investment http://www.wind-energy-the-facts.org/en/part-3-economics-of-wind-power/chapter-1-cost-of-on-land-wind-power/cost-and-investment-structures/
/38/	Training plan and Monitoring Procedures
/39/	The Implement Status of Electricity Price in 2007, published by State Electricity Regulatory Commission in Sep, 2008 http://www.serc.gov.cn/zwgkj/jggg/200809/W020080912334874610579.doc
/40/	Management and Protection of groundwater resources in Fujian Dongshan Island, published on Technical Supervision in Water, 2004 vol.5
/41/	Public information on the similar projects in Fujian Province. http://www.fjjg.gov.cn/fjwjj/jgfw/qsjgzc/webinfo/2000/12/1187774408406219.htm
/42/	Registered PDD of the Fujian Dongshan Wujaobay 30MW Wind Power Project (Ref. 0995), version 03.1 dated 01/02/2007 http://cdm.unfccc.int/UserManagement/FileStorage/K86WJ4WII7TYMVKVRRQXW0CR7364DI
/43/	Monitoring Report of 2 nd monitoring period of the Fujian Dongshan Wujaobay 30MW Wind Power Project (Ref. 0995), version 2.0 dated 03/04/2009 http://cdm.unfccc.int/UserManagement/FileStorage/C7T1AVFLG2SJ48IW6UEKPBMZQ9Y5OH
/44/	Registered PDD of Fujian Zhangpu Liuaio 30.6 MW Wind Power Project (Ref. 0388), version 4 dated 01/03/2006 http://cdm.unfccc.int/UserManagement/FileStorage/MK66O4BBNZYL4BQC4RJ0I85ELEY4DO
/45/	Operation and maintenance logs of the Project, including the start commissioning date of 31/08/2009.
/46/	Monthly Reading Records of the Project from August 2009 to August 2010.
/47/	Electricity Transaction Notes issued by the grid company, from August 2009 to August 2010
/48/	Statement of Increasing Rate of Maintenance in the FSR, issued by the FSR



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	designer, China Fulin Wind Power Development Co.,Ltd
/49/	Chengfeng Plan and Double Increase Plan http://www.qhd.heagri.gov.cn/qinhd/inc/detail.jsp?id=39728
/50/	Opinions on Accelerating Domestic Wind Power Generation Technology http://www.gesep.com/Law/Info_680.html
/51/	Tariff approval for wind project (Ji Ji Chu [2002] No. 2692
/52/	Tariff approval, Fa Gai Jia Ge[2006]2908
/53/	http://www.infra-vest.com/SC/5-1-3-2.html
/54/	http://www.gwec.info/index.php?id=129
/55/	Page 28-33, Evaluation of different feed-in tariff design options-Best practice paper for the international feed-in cooperation, 2 nd edition, updated by October 2008
/56/	http://www.energy-enviro.fi/index.php?PAGE=2543

Category 2 Documents:

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

/Ref-1/	Validation and Verification Manual Version 01.2 dated 30/07/2010
/Ref-2/	ACM0002 version 10 dated 28/05/2009
/Ref-3/	Tool to calculate the emission factor for an electricity system Version 02 dated 16/10/2009
/Ref-4/	Tool for demonstration and assessment of additionality Version 05.2 dated 26/08/2008
/Ref-5/	Guidance on the demonstration and assessment of prior consideration of the CDM Version 01 dated 02/08/2008 (Annex 46, EB41)
/Ref-6/	Glossary of CDM terms Version 05
/Ref-7/	Guidelines for the Reporting and Validation of Plant Load Factors version 01 (EB48, Annex11)
/Ref-8/	Guidance on the assessment of investment analysis version 03.1 (EB51 Annex58)
/Ref-9/	Guidance on the demonstration and assessment of prior consideration of the CDM Version 02 dated 17/07/2009 (Annex 61, EB48)

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. Huang Qun Project Manager, Fujian Dongshan Aozai Shan Wind Power Development Co.Ltd.

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- | | | |
|----|-------------------|---|
| 2. | Mr. Wang Yao | Project Manager, Fujian Dongshan Aozaishan Wind Power Development Co.Ltd. |
| 3. | Mr. Xu Binglin | Local stakeholder |
| 4. | Mr. Lin Dongshun | Local stakeholder |
| 5. | Mr. Chen Jixing | Local Stakeholder |
| 6. | Ms. Feng Tianfeng | Project Manager, Consultant |
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6 CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mr. (Robin) Wang Jing	Bureau Veritas Certification, China	<p>Technical Reviewer, Climate Change Lead Verifier</p> <p>He holds a Bachelor Degree in Gas & Heating Engineering. He was a Gas Engineer with over 10 years' experiences in oil and gas sector and building technology in P.R. China. Before joining BV in 2007, he gained two years of CDM audit experience in P.R. China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for ISO 14001 and ISO 14064:2006.</p>
Mr. Liao Ling	Bureau Veritas Certification, China	<p>Team Leader, Climate Change Lead Verifier</p> <p>He holds a Bachelor Degree in Atmosphere Science. Before joining BV in 2008, he gained 2 years of technical working experience of CDM in P.R. China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for ISO 14001 and Lead Auditor for EMS ISO 14001 and ISO 14064:2006.</p>
Mr. Zeng Ziyuan	Bureau Veritas Certification, China	<p>Team Member, Climate Change Lead Verifier</p> <p>He holds a Bachelor Degree in Building Environment and Equipment Engineering. Before joining BV in 2008, he gained 2 years of technical experiences in the green building industry in P.R. China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for EMS ISO 14001 and ISO 14064:2006.</p>

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APPENDIX A: CDM PROJECT VALIDATION PROTOCOL

Table 1 Validation requirements based on the Validation and Verification Manual V 01.2 (EB55 Annex 1) and methodology ACM0002 version 10 - Consolidated baseline methodology for grid-connected electricity generation from renewable sources"

CHECKLIST QUESTION	Ref.	§	comments		Draft Concl	Final Concl
1 Approval			COUNTRY A (China)	COUNTRY B (-)		
1.1 Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval? State the country.	VVM	45	Yes, The written letter of approval (LoA) issued by DNA of P.R. China, Ref No. 1748	N/A	OK	OK
1.2 Does the letter of approval from DNA of each Party confirm that : - The Party is a Party of the Kyoto Protocol - The participation is voluntary - In the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country - Refers to the precise proposed CDM project activity title in the PDD being submitted for registration	VVM	45	P. R. China has ratified the Kyoto Protocol on 30/08/2002, refer to http://maindb.unfccc.int/public/country.pl?country=CN The LoA states the precise proposed CDM project activity title and confirms voluntary participation and the contribution of the	N/A	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments		Draft Concl	Final Concl
			Project to the sustainable development of China.			
1.3 Is(are) the letter(s) of approval unconditional with respect to (1.2) above?	VVM	46	No. It is conditional in China Refer to 1.2 above	N/A	OK	OK
1.4 Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA)? Is the letter of approval valid for the proposed CDM project activity under validation?	VVM	47	Issued by NDRC China, No.1784, there is no doubt with respect to (1.2) above.	N/A	OK	OK
2 Participation						
2.1 Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	Yes, Fujian Dongshan Aozaishan Wind Power Development Co.Ltd. and Department of Climate Change, National Development and Reform Commission	N/A	OK	OK
2.2 Does the DOE have a contractual relationship with the	EB50	Ann	Yes.	N/A	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments		Draft Concl	Final Concl
project participants?		48				
2.3 Is the information in tabular form of section A.3 consistent with the contact details provided in Annex 1 of the PDD?	VVM	52	Yes, the information in tabular form of section A.3 is consistent with the contact details provided in Annex 1 of the PDD.	N/A	OK	OK
2.4 Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation?	VVM	52	Yes, referring to above (1.4)	N/A	OK	OK
2.5 Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	No		OK	
2.6 Has the approval of participation issued from the relevant DNA?	VVM	53	Yes.	N/A	OK	OK
3 Project design document						
3.1 Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	Yes. The PDD used the latest template version 03.2, and the "Guidelines for Completing CDM-PDD, CDM-NMB and CDM-NMM" – version 07 – 02/08/2008 (hereafter referred as "CDM-PDD Guideline")		OK	OK
3.2 Is the PDD in accordance with the applicable CDM	VVM	56	Yes		OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
requirements for completing the PDD?					
3.3 Does the DOE conducted physical site visit to assess the Project? If the DOE does not undertake a physical site inspection, this should be appropriately justified.	VVM	62	Yes. The on-site visit has been conducted on 15/04/2010.	OK	OK
3.4 In CDM-PDD section A.1 -Title of project -Current version number and date of document	EB 41	Ann 12	Title: Fujian Dongshan Damaoshan Wind Power Project GSP PDD version number: 1.0 Document version date: 18/01/2010 PDD Final Version Number: 3.0 Dated 05/08/2010	OK	OK
3.5 In CDM-PDD section A.2, are following provided?	EB 41	Ann 12			
3.5.1 A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, project scenario and baseline scenario. Are there any changes/modifications compared to the web hosted PDD?	EB 41 - VVM	Ann 12 - 58 59 60	This Project is to build and operate a 49.5MW grid connected wind farm. The existing scenario prior to the implementation of the proposed project activity is that the East China Power Grid (ECPG) would provide the electricity supply. CL-1. The baseline scenario should be presented in the PDD A.2. A.4.3. The baseline scenario is same with the exiting scenario prior to the implementation of the Project.	CL-1	OK



 VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			The technology, capacity and location of the Project are same with the web hosted PDD.		
3.5.2 Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	No. It is a newly-built project	OK	OK
3.5.3 Explanation on how the GHG emission reductions effected.	EB 41	Ann 12	To utilize the wind resource for power generation which will be delivered to the ECPG and displace the power from thermal power plants.	OK	OK
3.5.4 The PP's views on the contribution of project activity to sustainable development	EB 41	Ann 12	<p>The contribution to sustainable development is included in Section A.2 of the PDD, and confirmed by checking the FSR, FSR Approval and the LoA issued by China's DNA:</p> <ul style="list-style-type: none"> • It increases the share of renewable energy in the national grid and helps to stimulate the growth of the wind power industry in China. • It is accorded with the government's energy policy objective, which promotes the local economy and creates job opportunities during the installation and operation periods. • It reduces greenhouse gas emissions resulting from the power generation 	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			industry in China, compared to a business-as-usual technology. <ul style="list-style-type: none"> The success of the project activity will promote other business groups to invest in similar type of projects which will also help developing economy in the region(s). 		
3.6 In CDM-PDD section A.3, are following provided in the tabular format? <ul style="list-style-type: none"> List of project participants and parties Identification of Host Party Indication whether the Party wishes to be considered as project participant 	EB 41 VVM	Ann 12 51,52	Yes. Refer to section 2.2-2.4 above. China is also the project participant.	OK	OK
3.7 In CDM-PDD section A.4.1, are following provided?	EB 41	Ann 12			
3.7.1 Physical description, location, host party(ies) and address as required. Are there any changes/modifications compared to the web hosted PDD?	EB 41	Ann 12	The Project is located in the top of Damao mountain, Shitou mountain and Huzai mountain, which are in Chencheng town, Dongshan County, Fujian Province, P.R. China. The location is same with the web hosted PDD.	OK	OK
3.7.2 Detailed physical location with unique identification of the project activity (e.g. Longitude/latitude)	EB 41	Ann 12	Yes The geographical co-ordinates are: East longitude 117°23'7"-117°24'49", and	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			northern latitude 23°35'4"-23°36'26".		
3.8 In CDM-PDD section A.4.2, is the list of categories of project activities provided?	EB 41	Ann 12	Yes, Category: Renewable Energy in grid connected applications Sectoral Scope 1: Energy industries (renewable - / non-renewable sources)	OK	OK
3.9 In CDM-PDD section A.4.3, are following provided?	EB 41	Ann 12			
3.9.1 A description of how environmentally safe and sound technology, and know-how, is transferred to the Host Party(ies)	EB 41	Ann 12	All wind turbines are produced by Envision Energy in China. No technology is transferred to the host party.	OK	OK
3.9.2 Further explanation of purpose of project activity with scenario existing prior to the start of project, scope or present activities and the baseline scenario. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	Pending on 3.5.1 The baseline scenario is same with the exiting scenario prior to the implementation of the Project. There's no changes compared with the web hosted PDD.	Pending	OK
3.9.3 List and arrangement of the main manufacturing/production technologies, systems and equipments involved. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	Yes. There's no changes compared with the web hosted PDD.	OK	OK
3.9.4 The emissions sources and GHGs involved. Are there any changes compared to the web hosted PDD?	EB 41	Ann 12	CL-2. The emission sources and GHGs involved should be presented in the PDD A.4.3.	CL-2	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			<p>The emissions sources are the greenhouse gas emissions of CO₂ produced in fossil fuel fired power plants of ECPG.</p> <p>There's no changes compared with the web hosted PDD.</p>		
3.10 In CDM-PDD section A.4.4, is the estimation of emission reductions provided as requested in a tabular format?	EB 41	Ann 12	Renewable crediting period has been chosen. The estimation of emission reductions provided as requested in a tabular format.	OK	OK
3.11 In CDM-PDD section A.4.5, is information regarding public funding provided?	EB 41	Ann 12	<p>Yes.</p> <p>There is no public funding from Annex 1 Parties for this project, which has been confirmed by checking the Approval of FSR issued by the government.</p>	OK	OK
3.12 In CDM-PDD section (Baseline identification)	EB 41	Ann 12			
3.12.1 The approved methodology and version number	EB 41 VVM	Ann 12 70	<p>Yes. ACM0002 ver. 10</p> <p><i>"Consolidated methodology for grid-connected electricity generation from renewable sources"</i></p> <p><i>"Tool for the Demonstration and Assessment of Additionality ver. 05.2"</i></p>	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			and "Tool to calculate the emission factor for an electricity system ver. 02"		
3.12.2 Are the following applicability conditions of the methodology ACM0002 met?	VVM	71			
3.12.2.1 This methodology is applicable to grid-connected renewable power generation project activities that (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plants); (b) involve a capacity addition; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	ACM	0002	The Project is a greenfield plant.	OK	OK
3.12.2.2 The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit	ACM	0002	The project activity is the installation of a new wind power plant.	OK	OK
3.12.2.3 In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects which use Option 2: on page 10 to calculate the parameter $EGPJ,y$): the existing plant started commercial operation prior to the	ACM	0002	N/A	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.					
3.12.2.4 In case of hydro power plants, one of the following conditions must apply: <ul style="list-style-type: none"> - The project activity is implemented in an existing reservoir, with no change in the volume of reservoir; or - The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m²; or - The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m². 	ACM	0002	N/A	OK	OK
3.12.2.5 The methodology is not applicable to the following conditions. Please confirm <ul style="list-style-type: none"> • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity • Biomass fired power plants; • Hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of 	ACM	0002	Yes. The Project is a newly built wind power project and does not involve switching from fossil fuels to renewable energy sources at the site of the project activity.	OK	OK



VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
the power plant is less than 4 W/m2.					
3.13 Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity? Does the delineation of the project boundary include identification of all locations, processes and equipment including secondary equipment and associated processes such as logistics etc. Have changes been made to the project boundary in comparison to the web hosted PDD? If yes, please comment on the reason for the changes.	VVM	78 79	In the PDD B.3, the East China Power Grid (ECPG) is the project electricity system. And the spatial extent of the project boundary includes the proposed project and all power plants connect to electricity system. This is in line with the delineation of grid boundaries as provided by the DNA of China. The defined project boundary is in line with ACM0002 ver 10. And all emission sources and GHGs have been included in the project boundary. There's no changes compared with the web hosted PDD.	OK	OK
3.14 In CDM-PDD section B.3, are following provided? (a) Description of all sources and gases included in the project boundary in the table (b) A flow diagram of the project boundary physically delineating the project activity with all equipments, systems and flows of mass and energy etc	VVM EB 41	80 Ann 12	CL-3. The flow diagram should be presented in the PDD. The flow diagram including the emission sources and equipments and systems in the project boundary has been presented.	CL-3	OK
3.15 Is an explanation how the most plausible baseline scenario is identified in accordance with the selected baseline methodology is provided in CDM-PDD section B.4?	EB 41	Ann 12	Yes	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
3.15.1 If the project activity is the install a new grid-connected renewable power plant/unit (greenfield plant), is the baseline scenario identified appropriately in accordance with the ACM0002?	ACM	0002	Yes, “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”, has been identified directly in ACM0002.	OK	OK
3.15.2 If the project activity is a capacity addition to existing grid-connected renewable power plant/unit, is the baseline scenario identified appropriately in accordance with the ACM0002 and the point of time at which the generation facility would likely be replaced or retrofitted (DATE Baseline Retrofit) defined reasonably?	ACM	0002	N/A	OK	OK
3.15.3 If the project activity is the retrofit or replacement of existing grid-connected renewable power plant/unit, is the baseline scenario identified following step-wise procedure in accordance with the ACM0002?	ACM	0002	N/A	OK	OK
3.15.3.1 Are the realistic and credible alternative baseline scenarios for power generation appropriately identified following the Step 1 of the “Combined tool to identify the baseline scenario and demonstrate additionality”?	ACM	0002	N/A	OK	OK



 VALIDATION REPORT

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



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario?					
3.19 Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	No.	OK	OK
3.20 Are the documents and sources referred to in the PDD correctly quoted and interpreted And are they cross checked with other verifiable and credible sources, such as local expert opinion, if available?	VVM	84	N/A	OK	OK
3.21 Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	85	N/A	OK	OK
3.22 Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	85	N/A	OK	OK
3.23 Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	86	The baseline emissions are equal to power generated by the project that delivered to the ECPG.	OK	OK
3.24 In CDM-PDD section B.5, are following provided?	EB 41	Ann 12			
3.24.1 Explanation and Justification of how and why this	EB 41	Ann	Yes.	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
project activity is additional and therefore not the baseline scenario in accordance with the selected baseline methodology		12	Investment analysis used for demonstration of the additionality.		
3.24.2 Has the latest version of the “Tool for the demonstration and assessment of additionality” been used?	ACM	0002	Yes. Version 05.2 has been used.	OK	OK
3.24.3 Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation	EB 41	Ann 12	Yes. Evidences for the events included in the timeline have been provided.	OK	OK
3.25 In CDM-PDD section B.6.1, are following provided? (Algorithms and/or formulae used to determine emission reductions)	EB 41	Ann 12			
3.25.1 Explanation how the procedures, in the approved methodology to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity	EB 41	Ann 12	Yes. Complying with ACM0002, the “Tool to calculate the emission factor for an electricity system” ver. 02 is used.	OK	OK
3.25.2 Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring methodology?	VVM	89	CAR-1. The emission reduction calculation should be updated according to the “Tool to calculate the emission factor for an electricity system” ver. 02. The revised steps and equations described in “Tool to calculate the emission factor for an electricity system” are applied.	CAR-1.	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
3.25.2.1 Are the Project emissions appropriately calculated?	ACM	0002	There is no fossil fuel consumption in the Project, complying with ACM0002, the project emissions for wind power project is zero.	OK	OK
3.25.2.2 Are the Baseline emissions appropriately calculated specifically for (a) greenfield plants or (b) retrofit and replacements or (c) capacity additions?	ACM	0002	The baseline emissions are calculated appropriately for greenfield plants.	OK	OK
3.25.2.3 Are the Leakage appropriately calculated?	ACM	0002	Complying with ACM0002, the leakage for wind power project is zero.	OK	OK
3.25.2.4 Are the Emission reductions appropriately calculated?	ACM	0002	Yes.	OK	OK
3.25.3 Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	90	The steps and equations applied are consistent with the Tool and ACM0002.	OK	OK
3.25.4 Does the methodology provide for selection between different options for equations or parameters?	VVM	90	Yes Options in Step 1, 2 and 3 can be used for OM factor determination.	OK	OK
3.25.5 If yes, has adequate justification been provided and correct equations and parameters been used in accordance with the methodology selected?	VVM	90	Yes. The relevant justifications in Step 1, 2 and 3.	OK	OK
3.25.6 If data and parameters will not be monitored throughout the crediting period of the proposed CDM project activity but have already been determined and will remain fixed throughout the crediting period, - All data sources and assumptions are appropriate	VVM	91	Yes. The data and parameters which will not be monitored throughout the crediting period have applied the latest data source and applicable to the Project. All data sources	OK	OK



 VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
<ul style="list-style-type: none"> - Calculations are correct - Be applicable to the proposed CDM project activity - Will result in a conservative estimate of the emission reductions. 			and assumptions are appropriate, the calculation are correct and will result in a conservative estimate of the emission reductions.		
3.25.7 If data and parameters will be monitored on implementation and hence become available only after validation of the project activity, are the estimates provided in the PDD for these data and parameters are reasonable?	VVM	91	Yes. All equations and parameters used is in accordance with methodology ACM0002.	OK	OK
3.25.8 A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting period and that are available when validation is undertaken	EB 41	Ann 12	Yes.	OK	OK
3.25.9 Explanation and justification for the choice of the source of data	EB 41	Ann 12	The official data of Chinese power grid issued by NDRC based on <i>China Energy Statistical Yearbook</i> and <i>China Power Yearbook</i> and authorities' expertise is used.	OK	OK
3.25.10 Clear and transparent references or additional documentation in Annex 3	EB 41	Ann 12	Yes.	OK	OK
3.25.11 Where values have been measured, a description of the measurement methods and procedures (e.g. which standards have been used), indicated the responsible person/entity having undertaken the measurement, the	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

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
date of measurement(s) and the measurement results					
3.26 In CDM-PDD section B.6.3, are following provided?	EB 41	Ann 12			OK
3.26.1 A transparent ex ante 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
3.26.2 Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 41	Ann 12	Yes. The emission reduction calculation spreadsheet has been provided and checked.	OK	OK
3.26.3 Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 41	Ann 12	Yes. The calculation spreadsheet has been presented for re-produce.	OK	OK
3.27 In CDM-PDD section B.6.4 are, the results of the ex ante estimation of emission reductions for all years of the crediting period, provided in a tabular format?	EB 41	Ann 12	Yes. From 2011 to 2017 with year-wise data of emission reductions.	OK	OK
3.28 In CDM-PDD section B.7.1, are following provided?	EB 41	Ann 12			
3.28.1 Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 41	Ann 12	EG _{facility,y} is the monitoring parameter to calculate the baseline emissions. CL-4. The EG_{facility,y} is calculated as the	CL-4	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			electricity exported to the grid minus the electricity imported from the grid. Those two parameters should be included in the monitoring plan. The electricity exported to and imported from the grid have been included in the revised monitoring plan.		
3.28.2 For each parameter the following below information, using the table provided:	EB 41	Ann 12			
3.28.2.1 The source(s) of data that will be actually used for the proposed project activity (e.g. which exact national statistics). Where several sources may be used, explain and justify which data sources should be preferred.	EB 41	Ann 12	N/A No other outside source(s) of data should be used.	OK	OK
3.28.2.2 Where data or parameters are supposed to be measured, specify the measurement methods and procedures, how the measurement is undertaken: (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment.	EB 41	Ann 12	The monitoring data will be cross checked with electricity sales receipts. The error of meter will not exceed 0.5% of the full scale. The calibration will carry out periodic in line with relevant national standard. The measurement interval is continuously.	OK	OK
3.29 In CDM-PDD section B.7.2, is a detailed description of the monitoring plan provided?	EB 41	Ann 12	Yes. Two meters (one main and one backup) will be installed at the outlet of the 110kV	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			substation of the Project site. The management structure, training plan, QA/QC procedures and calibration plan have been fully established.		
3.30 Are all data monitored as per monitoring methodology?	ACM	0002	Yes.	OK	OK
3.31 Are all data collected as part of monitoring archived electronically and kept at least for 2 years after the end of the last crediting period?	ACM	0002	Yes.	OK	OK
3.32 In CDM-PDD section B.8, are following provided?	EB 41	Ann 12			
3.32.1 Date of completion of the application of the methodology to the project activity study in DD/MM/YYYY	EB 41	Ann 12	Yes.	OK	OK
3.32.2 Contact information of the person(s)/entity(ies) responsible for the application of the baseline and monitoring methodology to the project activity	EB 41	Ann 12	Yes.	OK	OK
3.32.3 Indication if the person/entity is also a project participant listed in Annex 1	EB 41	Ann 12	Yes. The person/entity isn't the project participant.	OK	OK
3.33 In CDM-PDD section C.1.1, are following provided?	EB 41	Ann 12			
3.33.1 Is the project's starting date clearly defined and evidenced?	EB 41	Ann 12	Pending on 4.2.3 The project's starting date has been clearly	Pending	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			defined as 27/10/2008, when the substation construction contract was signed.		
3.34 In CDM-PDD section D., are the conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the Host Party, if environmental impacts are considered significant by the project participants or the Host, provided?	EB 41	Ann 12	The conclusion stated: the Project has no significant impacts on the environment and the EIA has been approved by Fujian Environment Protection Bureau on 06/12/2007.	OK	OK
3.35 In CDM-PDD section E.1, are the following provided?	EB 41	Ann 12			
3.35.1 The process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted.	EB 41	Ann 12	Yes. Local villagers and residents and government representatives in the area were interviewed by a consultation meeting and distributing questionnaires to household during December 2007-March 2008.	OK	OK
3.35.2 The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	EB 41	Ann 12	Yes.	OK	OK
3.35.3 The local stakeholder process has been, completed before submitting the proposed project activity to the DOE for validation.	EB 41	Ann 12	Yes.	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
3.36 In CDM-PDD section E.2, are following provided?	EB 41	Ann 12			
3.36.1 Identification of local stakeholders that have made comments	EB 41	Ann 12	Yes.	OK	OK
3.36.2 A summary of these comments.	EB 41	Ann 12	Yes.	OK	OK
3.37 In CDM-PDD section E.3 is the explanation of how due account have been taken of comments received from local stakeholders provided?	EB 41	Ann 12	Yes.	OK	OK
3.38 In CDM-PDD Annex 1, are the following provided?	EB 41	Ann 12			
3.38.1 Contact information of project participants	EB 41	Ann 12	Yes.	OK	OK
3.38.2 For each organization listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 41	Ann 12	Yes.	OK	OK
3.39 In CDM-PDD Annex 2, is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 41	Ann 12	Yes, there's no public funding for the proposed project.	OK	OK

VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
3.40 In CDM-PDD Annex 3, is the background information used in the application of the baseline methodology provided?	EB 41	Ann 12	Yes.	OK	OK
3.41 In CDM-PDD Annex 4, is the background information used in the application of the monitoring methodology provided?	EB 41	Ann 12	No No further information provided in Annex 4.	OK	OK
4 Additionality of a project activity					
4.1 General checklist for additionality					
4.1.1 Does the CDM-PDD state the latest version of the additionality tool being used?	VVM	95	Yes. The approved "Tool for the Demonstration and Assessment of Additionality" version 05.2 is used.	OK	OK
4.1.2 Were the steps taken of the "Tool for the Demonstration and Assessment of Additionality" to assess additionality used:	EB 39	Ann 10	Yes. Step 1-identification of alternatives of the project activity, Step 2-Investment analysis Step 3 -Barrier analysis (not used) Step 4-common practice analysis	OK	OK
4.1.3 Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10			



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.3.1 The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes. Alternative a) is identified. a) The proposed project activity undertaken without being registered as a CDM project activity.	OK	OK
4.1.3.2 Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	Yes. Alternative b) and c) are identified. b) The fossil fuel power plant with the same annual electricity output as the proposed project c) Other power plants using other sources of renewable energy with the same annual electricity output as the proposed project;	OK	OK
4.1.3.3 If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	Yes. Alternative d) is identified. The East China Power Grid as the provider for the same amount electricity output as the proposed project.	OK	OK
4.1.4 Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly?	EB 39	Ann 10	Yes. Alternative c is not realistic and credible while the other three alternatives are.	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.5 Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution, and outcome of Step 1.b is thus concluded?	EB 39	Ann 10	Yes.	OK	OK
4.1.6 If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	Yes. Alternative b) is noncompliance with those requirements and is not appeared in the country.	OK	OK
4.1.7 Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	Step 2 has been applied.	OK	OK
4.1.8 In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10	Yes.	OK	OK
4.1.9 In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10			
4.1.9.1 Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	Excluded as the proposed project activity generates financial benefits by the sales of electricity other than CER revenue.	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.9.2 Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Yes. The proposed project will use benchmark analysis method (option III) based on the project IRR.	OK	OK
4.1.10 Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	N/A	OK	OK
4.1.11 Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	N/A	OK	OK
4.1.12 Has the most suitable benchmark for the project been determined in Sub-step 2b?	EB 39	Ann 10	Yes.	OK	OK
4.1.12.1 Which source shall the discount rates and benchmarks derived from? Please specify benchmark and justify.	EB 39	Ann 10	Yes. Derived from (d) With reference to Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects, the financial benchmark IRR of Chinese electric power industry is 8% on project (post tax), which has been used widely in feasibility studies	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			of new power plants, including wind power projects in China.		
4.1.13 Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?	EB 39	Ann 10			
4.1.13.1 Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	Yes. The project IRR was applied.	OK	OK
4.1.13.2 Present the investment analysis in a transparent manner and provide all the relevant assumptions, preferably in the CDM-PDD, or in separate annexes to the CDM-PDD.	EB 39	Ann 10	Yes. The spreadsheet has been provided. CL-5. More key parameters for investment analysis should be presented in the PDD, including residual rate and interest rate. The key parameters for investment analysis have been presented in the PDD.	CL-5	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.13.3 Justify and/or cite assumptions.	EB 39	Ann 10	Yes All input values are taken from the approved FSR.	OK	OK
4.1.13.4 In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	Yes. Relevant costs are included.	OK	OK
4.1.13.5 Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	Not applicable as Option III is used.	OK	OK
4.1.13.6 Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 39	Ann 10	Not applicable as Option III is used.	OK	OK
4.1.13.7 Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	Pending on 4.4.7.2 The period of assessment is not limited to the proposed crediting period.	Pending	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.13.8 Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	Pending on 4.4.7.2 20 years for operation period per the approved FSR. The operation period 20 years is widely applied in power plant sector. Fair value of zero is same as in the approved FSR. Complying with the Income Tax Law Implementation Regulations published in Nov, 2007, the project owner can fix the residual value themselves. Considering the location of the project is on island besides sea, the project owner fixes the residual value to be zero. BVC is able to confirm that the determination on fair value is in line with the regulation.	Pending	OK
4.1.13.9 Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	Yes.	OK	OK
4.1.13.10 Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	Pending on 4.4.7.2 The 20 years used in the PDD is reasonable according to "Tool for the demonstration and assessment of additionality" (Version 05.2).	Pending	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.13.11 Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	No. As per local tax regulation, the PP can determine the residual rate themselves based on their specific condition. As the Project is located at the Dongshan Island, the design institute estimated that there isn't any fair value at the end of the assessment period in the FSR.	OK	OK
4.1.13.12 Does the depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, be added back to net profits for the purpose of calculating the financial indicator?	EB 51	Ann 58	Yes.	OK	OK
4.1.13.13 If the project activity was ceased after the commencement and where implementation is recommenced due to consideration of the CDM, can the investment analysis reflect the economic decision making context at point of the decision to recommence the project?	EB 51	Ann 58	N/A	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.1.13.14 Is pre-tax benchmark or post tax benchmark applied in the investment analysis? If a post tax benchmark is applied, is the actual interest payable taken into account in the calculation of income tax? If yes, is the interest calculated according to the prevailing commercial interest rate in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years.	EB 51	Ann 58	A post tax benchmark is applied. CAR-2. The interest should be considered in the income tax calculation. The interest expenses have been taken into account in the revised calculation of income tax.	CAR-2.	OK
4.1.14 Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	Yes. Four main variable factors are identified for sensitivity analysis of the project, including <ul style="list-style-type: none"> ➤ Total investment ➤ Tariff ➤ Electricity supplied , ➤ Annual O&M cost, with a variation range from -10% ~ +10%. And the critical point analysis are also identified, based on the analysis after the critical analysis, the Project is unlikely to be financially attractive.	OK	OK

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4.1.15 Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	Yes. The proposed project is not financially feasible without the revenue of CERs.	OK	OK
4.1.16 Have the barrier analysis been conducted?	EB 39	Ann 10	Not applied	OK	OK
4.1.17 In step 4: Common practice analysis has all the sub-steps as below followed?	EB 39	Ann 10		OK	OK
4.1.17.1 Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. Provide documented 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	Yes. Fujian Province has been selected as the geographical scope, BVC confirms that the geographical scope is appropriate since the investment circumstance and regulations related to wind power of each province in China are significant different. The non-CDM wind power projects in Fujian Province are defined as the similar projects. Using the latest version of public statistics i.e. "Statistics of wind power installed capacity in China" (hereafter refer to as SWPC) Version 2007, two projects are identified. BVC has checked the documented evidence and found that the similar projects are properly identified.	OK	OK
4.1.17.2 Has the below guideline followed for Sub-step 4b:	EB 39	Ann	Yes.	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
Discuss any similar Options that are occurring?		10	The two similar projects are demonstration projects early in 2000 and enjoyed higher tariff. Hence there are essential distinction between the Project and these two projects. The documentation evidences have been checked by BVC and found consistent.		
4.1.18 Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	Yes. The proposed project is additional.	OK	OK
4.2 Prior consideration of the clean development mechanism					
4.2.1 Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	98	Yes. The start date is prior to the validation commissioned.	OK	OK
4.2.2 If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	98	Yes. As per the FSR, the IRR is below the benchmark 8% without CDM revenue. The project owner held a board meeting for introducing CDM to make the Project to be financial attractive. The supporting evidences including I. The relevant description in the approved FSR. II. Other wind farms' tariff in same province published by NDRC before the FSR was	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
			finalized. III. the decision file of the board meeting		
4.2.3 Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins"?	VVM	99	CAR-3. Complying with "Glossary of CDM terms", the start date of the Project should be identified as 08/10/2008 when the substation construction contract signed, prior to the substation construction start. The start date of the Project has been identified as 27/10/2008, when the substation construction contract was signed.	CAR-3.	OK
4.2.4 Does the project activity require construction, retrofit or other modifications?	VVM	99	The Project required construction.	OK	OK
4.2.5 Is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	99	The date of commissioning will not be considered as the project activity start date as that is prior to the equipment purchasing agreement date.	OK	OK
4.2.6 Is it a new project activity (project activities with starting date on or after 02 August 2008) or an existing project activity (project activities with a start date before 02 August 2008)?	VVM	100	It's a new project activity.	OK	OK
4.2.7 For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the Executive Board before	VVM	101	Yes. The PP informed the China's DNA (NDRC) on 10/10/2008 prior the start date of the	CL-6	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
the project activity start date, had the PP informed the Host Party DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status?			Project, and confirmation letter issued by China DNA on 01/12/2008 CL 6. Why the PP didn't inform the UNFCCC secretariat should be clarified. Complying with "Guidance of Prior-Considering CDM" version 01, the CDM benefits have been considered necessary in the decision to undertake the project as a CDM project activity		
4.2.8 For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	102	N/A	OK	OK
4.2.8.1 Evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project,	VVM	102	N/A	OK	OK
4.2.8.2 Reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Has the chronology of events including time lines been appropriately captured and explained/detailed in the PDD?	VVM	102	N/A	OK	OK

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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.3 Identification of alternatives					
4.3.1 Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	105	Yes. It has prescribed the baseline scenario directly as per ACM0002.	OK	OK
4.3.2 If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	N/A	OK	OK
4.3.3 Does the list of alternatives given in the PDD ensure that: - One of the options that the project activity is undertaken without being registered as a proposed CDM project activity - The list contains all plausible alternatives - The alternatives comply with all applicable and enforced legislation	VVM	106	N/A	OK	OK
4.4 Investment analysis					
4.4.1 If investment analysis has been used to demonstrate the additionality of the proposed CDM project activity, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	108			
4.4.1.1 The most economically or financially attractive alternative?	VVM	108	N/A	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.4.1.2 Economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108	Pending on CAR-2 and CL-7. Project IRR 7.44% (without CDM revenue) vs. benchmark 8%, the project IRR of the Project without the revenue from the sale of CERs is below the benchmark and not financially feasible.	Pending	OK
4.4.2 Was this shown by one of the following approaches?	VVM	109		OK	OK
4.4.2.1 Demonstrate that the proposed CDM project activity would produce no financial or economic benefits other than CDM-related income.	VVM	109	N/A	OK	OK
4.4.2.2 The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	N/A	OK	OK
4.4.2.3 The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	109	Yes. Refer to 4.4.1.2	OK	OK
4.4.3 Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	Yes.	OK	OK
4.4.4 Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur and the likelihood of these conditions assessed?	VVM	111	Yes. Refer to 4.1.14	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
4.4.5 To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by: <ul style="list-style-type: none"> a. Assessing previous investment decisions by the project participants involved, and b. Determining whether the same benchmark has been applied, or c. Determining if there are verifiable circumstances that have led to a change in the benchmark 	VVM	112	Yes. The benchmark of 8% is widely used for wind power projects No other benchmark rate can be applied in China wind power sector.	OK	OK
4.4.6 Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities?	VVM	113	The input values are sourced from the FSR which was approved by Fujian DRC on 28/03/2008.	OK	OK
4.4.7 If yes: (EB38 para.54)					
4.4.7.1 Has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	Yes, as interviewed, the PP's final decision to proceed with the investment in the Project has been made based on the approved FSR finalized in Nov, 2007 and decided to invest the Project soon on 10/12/2007 with consideration of CDM revenues. BVC was therefore confident that it is unlikely in the context of the underlying project activity that the input values would have materially changed.	OK	OK
4.4.7.2 Are the values used in the PDD and associated annexes fully consistent with the FSR? If not, was the	VVM	113	CL-7. <u>The project life time of 25 years is</u>	CL-7	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
appropriateness of the values validated?			not consistent with the FSR. Please clarify the appropriateness of that. All parameters used in the revised PDD are fully consistent with the FSR.		
4.4.7.3 On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	CL-8. The appropriateness of tariff and the rate of fixed assets maintenance are required to clarify. The WTG and wind tower purchase contracts and construction contract have been checked and found the actual cost of the WTG is close to those estimated in the FSR. The values of O&M costs and various taxes have been verified through cross-check with the relevant codes or taxation rules conducted by local government and have been found the full consistency.	CL-8	OK
4.5 Barrier analysis					
4.5.1 Has barrier analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	115	No	OK	OK
4.5.2 If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	115	N/A	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
a. Prevent the implementation of this type of proposed CDM project activity? b. Do not prevent the implementation of at least one of the alternatives?					
4.6 Common practice analysis					
4.6.1 Is this a large-scale or first-of-its kind small-scale project activity?	VVM	119	It's a large-scale project activity.	OK	OK
4.6.2 Was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	119	Yes.	OK	OK
4.6.3 Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologies the relevant region for assessment will be local and for others it may be trans-national /global.)	VVM	120	Yes. The Project is located in Fujian Province. As projects of same type developed within the same region face a similar regulatory framework that makes them comparable. Therefore, activities similar to the Project should be wind farm located in Fujian Province.	OK	OK
4.6.4 Was a region other than the entire host country chosen?	VVM	120	Yes.	OK	OK
4.6.5 If yes, was the explanation why this region is more appropriate assessed?	VVM	120	Yes.	OK	OK
4.6.6 Using official sources and local and industry expertise, was it determined to what extent similar and	VVM	120	Yes. The data source in PDD for common	OK	OK

VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
operational projects (e.g., using similar technology or practice), other than CDM project activities, and have been undertaken in the defined region?			practice has been verified and found reliable.		
4.6.7 Are similar and operational projects, other than CDM project activities, already “widely observed and commonly carried out” in the defined region?	VVM	120	Yes. Two similar projects in Fujian province are identified.	OK	OK
4.6.8 If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	120	Yes. There are essential distinctions between the Project and two identified similar projects, because they are early demonstration projects and enjoyed higher tariff than the Project.	OK	OK
5 Monitoring plan					
5.1 Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	122	Yes.	OK	OK
5.2 Does the monitoring plan contain all necessary parameters?	VVM	123	Pending on 3.28.1 All necessary parameters were included in the revised monitoring plan.	Pending	OK
5.3 Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	Yes. In line with local practices in power sector.	OK	OK
5.4 Are the means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project	VVM	123	Yes.	OK	OK



 VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
activity can be reported ex post and verified?					
6 Sustainable development					
6.1 Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	125	Yes. Refer to the LoA of the host party.	OK	OK
6.2 Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	126	Yes. Refer to the LoA of the host party.	OK	OK
7 Local stakeholder consultation					
7.1 Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	Yes. The local stakeholders including local villagers and residents in the area, 20 pieces of questionnaires were distributed from Dec 2007 to Mar 2008, and all were returned. The stakeholder consulting is prior to the publication of the PDD on the UNFCCC website.	OK	OK
7.2 Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	Yes. The stakeholders are all supportive of the proposed project and to date there has been no need to modify the project design according to the comments received.	OK	OK
7.3 Is the summary of the comments received as provided	VVM	129	Yes. All questionnaires have been	OK	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
in the PDD complete?			cross-checked with the description in the PDD section E. 2.		
7.4 Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	Yes. PDD section E.3. Since there is no negative comment received, it's no necessary to make adjustment on design, construction and operation of the project. However, to reduce the impacts on the local environment produced from the construction of the project, the project stakeholders should guarantee and suitably add the investment of environmental protection. At the same time, the construction processes should be strictly implemented according to the national environment regulations.	OK	OK
8 Environmental impacts					
8.1 Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	131	CL-9. The EIA report is required to be provided. The EIA report present the environmental impacts of the Project and consistent with the description in the PDD.	CL-9	OK
8.2 Have the project participants undertaken an analysis	VVM	132	Pending on 8.1	Pending	OK



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CHECKLIST QUESTION	Ref.	§	comments	Draft Concl	Final Concl
of environmental impacts?					
8.3 Does the host Party require an environmental impact assessment?	VVM	132	Yes.	OK	OK
8.4 If yes, have the environmental impact assessment approved by local government?	VVM	132	Yes. Approved by Fujian Provincial Environment Protection Bureau on 06/12/2007.	OK	OK

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Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CAR-1: The emission reduction calculation should be updated according to the “Tool to calculate the emission factor for an electricity system” ver. 02.	3.25.2	The emission reduction calculation has been updated as per the “Tool to calculate the emission factor for an electricity system” ver. 02 in the revised PDD.	BVC has check the revised PDD and found the emission reduction calculation complying with the “Tool to calculate the emission factor for an electricity system” ver. 02. This CAR is closed.
CAR-2: The interest should be considered in the income tax calculation.	4.1.13.14	The interest has been considered in the updated PDD and IRR spreadsheet.	BVC has checked the revised financial spreadsheet and found that the actual interest payable has been considered in the income tax calculation. The interest rate and debt-equity ratio have been cross-checked with the loan contract and FSR and found consistent. Hence this CAR is closed.
CAR-3: Complying with “Glossary of CDM terms”, the start date of the Project should be	4.2.3	The start date has been corrected as	The revised start date of the



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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
identified as 08/10/2008 when the substation construction contract signed, prior to the substation construction start.		08/10/2008 when the substation construction contract signed in the updated PDD.	Project is the date when the substation construction contract signed, which is the earliest date at which either the implementation or construction or real action of a project activity begins, complying with the latest "Glossary of CDM terms". Hence this CAR is closed.
CL-1: The baseline scenario should be presented in the PDD A.2, A.4.3.	3.5.1	The baseline scenario has been presented in A.2 and A.4.3 of the PDD.	The revised PDD has been checked and found satisfied. This CL is closed.
CL-2: The emission sources and GHGs involved should be presented in the PDD A.4.3.	3.9.4	The emission sources and GHGs involved have been presented.	The revised PDD has been checked and found satisfied. This CL is closed.
CL-3: The flow diagram should be presented in the PDD B.3	3.14	The flow diagram has been added.	The revised PDD has been checked and found satisfied. This CL is closed.



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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CL-4: The $EG_{\text{facility}, y}$ is calculated as the electricity exported to the grid minus the electricity imported from the grid. Those two parameters should be included in the monitoring plan.	3.28.1	The electricity exported to and imported from the grid are included in the revised monitoring plan.	BVC has checked the revised PDD and found all necessary parameters have been included in the monitoring plan. This CL is closed.
CL-5: More key parameters for investment analysis should be presented in the PDD, including residual rate and interest rate.	4.1.13.2	Key parameters for investment analysis have been added. Complying with the Income Tax Law Implementation Regulations published in Nov 2007 and effected from 01/01/2008, the project owner can fix the residual value themselves. Considering the location of the project is on island besides sea, the project owner fixes the residual value to be zero.	The revised PDD has been checked and found satisfied. This CL is closed.
CL-6: Why the PP didn't inform the UNFCCC secretariat should be clarified.	4.2.7	The PP had already obtained the confirmation for the notification from China DNA on 1 December 2008. The project's starting date is 08 October	As the later version of Guidance-Prior Consideration of CDM was published more than six months after the start date of



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Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
		<p>2008, which is nearly 9 months earlier than standardized form notification stipulation issuance. The Standardized form for the notification for the prior consideration of the CDM was issued by EB on 17 July 2009.</p>	<p>the Project, the version 01 of Guidance-Prior Consideration of CDM was employed.</p> <p>The PP informed China's DNA the commencement of the Project on 10/10/2008, within six months of the start date of the Project, and got the confirmation letter from China's DNA on 01/12/2008. BVC is able to confirm that the serious consideration under the context of the Project has been addressed appropriately in accordance with the above guidance.</p> <p>Hence this CL is closed.</p>
CL-7: The project life time of 25 years is not consistent with the FSR. Please clarify the appropriateness of that.	4.4.7.2	<p>It is a clerical error. As we known, the life time of the wind turbine is no more than 20 years, so the 25 years should be adjusted to 20 years according to the</p>	<p>BVC has checked the FSR and the WTG purchase contract, and confirm that the life time of the wind turbine and operation</p>



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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
		FSR.	<p>period of the Project is 20 years.</p> <p>The revised PDD and financial spreadsheet reflect the assessment period in the approved FSR and comply with guidance of investment analysis.</p> <p>This CL is closed.</p>
CL-8: The appropriateness of tariff and the rate of fixed assets maintenance are required to clarify.	4.4.7.3	<p>The tariff and the rate of the fixed assets maintenance are sourced from the FSR.</p> <p>Before the FSR finished, the only tariff notification public available was 0.585 RMB/kWh for its first 30,000 operation hours, and down to the average tariff of local thermal power plant after 30,000 operation hours, issued by NDRC on 09/06/2007.</p> <p>Furthermore, according to the latest tariff notification issued by NDRC on 20/07/2009 (Fa Gai Jia Ge [2009]1906),</p>	<p>BVC has checked the FSR and is able to confirm that the tariff and the costs of fixed assets maintenance are taken from the approved FSR.</p> <p>The clarifications are found reasonable and relevant evidences have been provided and found authentic. BVC also cross-checked with the information of registered CDM projects in Fujian Province, and</p>



 VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
		<p>China wind power projects are classified to 4 categories (I, II, III, IV) according to their regional wind resource and construction status. Fujian Province belongs to category IV, thus the tariff of wind power projects in Fujian Province is 0.61RMB/ kWh (Incl. VAT).</p> <p>Since the tariff in the FSR is an optimistic expected tariff, which is higher than the public tariff in Fujian province. It is very conservative that this tariff has been applied in the IRR analysis.</p> <p>The O&M is sourced from the FSR, the average annual O&M cost is 16.88 Million RMB (about 0.14 RMB/kWh). According to the “Wind Energy – the Facts” implemented by European Wind Energy Association (EWEA) published in Mar. 2009, the O&M costs are generally estimated to be around 1.2 to 1.5 eurocents (c€) per kWh (0.12 RMB/kWh</p>	<p>found the chosen tariff and costs of fixed assets maintenance are appropriate and conservative.</p> <p>This CL is closed.</p>



 VALIDATION REPORT

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
		to 0.15 RMB/kWh) of wind power produced, the annually average O&M cost 0.14 RMB/kWh of the project was within the reasonable range.	
CL-9: The EIA report is required to be provided.	8.1	The EIA report has been provided.	The EIA report has been checked and found consistent with the description in the PDD. This CL is closed.