



VALIDATION REPORT

INNER MONGOLIA YIHEWUSU PHASE II 49.5 MW
WIND POWER PROJECT

REPORT No. 2009-19

REVISION No. 01.5

KOREAN FOUNDATION FOR QUALITY



VALIDATION REPORT

Date of first issue: 29 September 2009	Date of this revision 8 March 2010	Project No.: C-9058
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Client: EcoSecurities International Limited	Client ref.: Mr. Patrick James Browne	

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Summary:

Project Title : Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project

Investor Country : United Kingdom of Great Britain and Northern Ireland

Host Country : People's Republic of China

Project Participants : Inner Mongolia Xinjin Wind Power Co., Ltd.
EcoSecurities International Limited.

Applied Methodology(ver) : ACM 0002(version 10)

Technology/Measure to be employed : 49.5 MW (750 kW * 66) wind power

Crediting Period : 7 yrs renewable crediting period

Estimated ER : 107,267 ton CO₂/yr

Project Size : Large Scale

Validation Report Status

- ☐ CAR/CL Requested
- ☐ Resolution of Outstanding issues
- ☐ Before DNA approval
- ☒ Full approval and submission for registration

As the result of the validation, it can be confirmed that **Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project** as described in the revised PDD of 8 January 2010 (Ver.03), meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baselines and monitoring methodology ACM 0002(Version 10). KFQ thus requests the registration of the project as a CDM project activity.

Work carried out by :

Mi Jung LEE (Audit team Leader, GHG auditor)
Yu Shim JEONG (Audit team member, GHG auditor)
Pyung Hee JANG (Audit team member, Observer)

Work Verified by :
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VALIDATION REPORT

Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CL	Clarification request
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide Equivalent
DNA	Designated National Authority
GHG	Greenhouse gas(es)
NCPG	North China Power Grid
KFQ	Korean Foundation for Quality
MoV	Means of verification
MP	Monitoring Plan
NGO	Non-governmental Organisation
ODA	Official Development Assistance
OM	Operating Margin
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change

<i>Table of Contents</i>	<i>Page</i>
1 INTRODUCTION	3
1.1 Objective	3
1.2 Scope	3
1.3 Validation Team	4
2 METHODOLOGY	4
2.1 Desk Review of the Project Design Documents	6
2.2 Follow-up Interviews with Project Stakeholders	7
2.3 Resolution of Clarification and Corrective Action Requests	7
2.4 Internal Quality Control	8
3 VALIDATION FINDINGS	8
3.1 Participation Requirements	8
3.2 Project Design	9
3.3 Baseline Determination	10
3.4 Additionality	11
3.5 Monitoring Plan	23
3.6 Calculation of GHG Emissions	26
3.7 Environmental Impacts	26
3.8 Comments by Local Stakeholders	27
4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS	27
5 VALIDATION OPINION	28
6 REFERENCES	30

Appendix A: Validation Protocol

Appendix B: Qualification of Validation Team

1 INTRODUCTION

Korean Foundation for Quality (KFQ) has been engaged by EcoSecurities International Limited to perform a validation of the ‘Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project’ in People’s Republic of China (China). This validation report summarizes the findings of the validation of the project, performed on the basis of UNFCCC and host party’s criteria for CDM project, 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 modalities and procedures and the subsequent decisions by the CDM Executive Board.

All the validation team’s conclusion and opinion on this project activity are made the PDD of version 03, 8 January 2010, as a basis. The final PDD has followed the structure and guidance in the latest relevant PDD template (CDM-PDD, Ver. 03.2) and the ‘Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodologies (CDM-NM) (Ver. 07) for Large Scale CDM project.

The Project is classified with sectoral scope 1- Energy Industries (Renewable Electricity: Generation for a grid) and wind power utility will utilize wind resources in the Hangjin County, Ordos City, Inner Mongolia, People’s Republic of China. Total capacity of the project is 49.5MW, comprised of sixty six 750 kW wind turbines (66 x 750 kW) with a predicted electricity supply to the Northern China Power Grid (NCPG) is 101,689MWh annually. Average annual operating hours is 2,562 hours and expected CO₂ reduction is estimated to be 107,267tCO₂e per year and 750,869 tCO₂e over the first 7 year crediting period.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project’s baseline, the monitoring plan (MP), and the project’s compliance with relevant UNFCCC and host countries criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. The 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).

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document (PDD), the project’s baseline study, monitoring plan and other relevant documents. The information in these documents is reviewed against the criteria stated in Article 12 of the

Kyoto Protocol, the CDM modalities and procedures as agreed on the Marrakech Accords and the relevant decisions by the CDM Executive Board including the approved baseline and monitoring methodology. KFQ has employed a risk-based approach to the validation that is based on the recommendation in the Validation and Verification Manual.

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 consisted as follows:

Mi Jung LEE (Audit team leader, GHG auditor)

Yu Shim JEONG (Audit team member, GHG auditor)

Pyung Hee JANG (Audit team member, Observer)

The qualification of each individual validation team member is detailed in Appendix B to this report.

2 METHODOLOGY

The validation consists of the following three phases:

- I a desk review of the project design documents
- II follow-up interviews with project stakeholders
- III The resolution of outstanding issues and the issuance of the final validation report and opinion.

In order to ensure transparency, a validation protocol for CDM project was customized for the project, according to the Validation and Verification Manual. 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 validation protocol consists of three tables. The different columns in these tables are described in Figure 1. The completed validation protocol is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfilment of validation protocol criteria or where a risk to the fulfilment of project objectives is identified. Corrective Action Requests (CAR) are issued, where:

- i) mistakes have been made with a direct influence on project results;
- ii) validation protocol requirements have not been met; or
- iii) there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

The term Clarification (CL) is issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

The validation team has assessed the proposed CAR with a positive result and after the closure of these CAR and CL the proponent has issued the final version of the PDD. On the basis of this the final validation report and opinion were issued.

Validation Protocol Table 1: Mandatory Requirements for Clean Development Mechanism Project Activity			
Requirement	Reference	Conclusion	Cross reference/Comment
<i>The requirements the project must meet.</i>	<i>Gives reference to the legislation or agreement where the requirement is found.</i>	<i>This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the Validation report.</i>	<i>Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.</i>

Validation Protocol Table 2: Requirement checklist				
Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
<i>The various requirements in Table 2 are linked to checklist questions the project should meet. The checklist is organised in five different sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found.</i>	<i>Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.</i>	<i>This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CL) is used when the validation team has identified a need for further clarification.</i>

Validation Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Validation conclusion
<i>If the conclusions from the draft Validation are either a Corrective Action Request or a Clarification Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification Request is explained.</i>	<i>The responses given by the Client or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".</i>

Figure 1 Validation Protocol Tables

2.1 Desk review of the Documents

The Project Design Document (PDD) version 01 was submitted 1 July 2009 and reviewed with additional background documents related to the project design including baseline and additionality of the project. A complete list of all documents and proofs reviewed is in section 6, Reference, to this report.

Main changes between the versions published for the 30 days stakeholders commenting period and the final version submitted for registration:

- Changes related to the CARs and CLs identified in the KFQ's validation report.
- Change of Guidelines on the assessment of investment analysis from version 02.1 to version 03 and Tool to calculate the emission factor for an electricity system from version 01.1 to version 02 due to application of the latest version of tools and guidance.

2.2 Follow-up Interviews with Project Stakeholders

Issues identified by KFQ during the subsequent stages of the validation have been clarified through continuous communication with the project participants. The project participants have also provided underlying documentation for review by KFQ, confirming selected information and resolving issues identified in the validation

In the period of 18 August 2009 to 19 August 2009, KFQ performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarised in Table 1.

Table 1 Interview topics

Interviewed organisation	Interview topics
Inner Mongolia xinjin wind Power Co.,Ltd - Sheng Yanfeng	➤ Project design ➤ Project technology, operation, maintenance ➤ Sustainable development issues ➤ Additionality ➤ Environmental impacts(incl. EIA approval) ➤ Stakeholder consultation process ➤ Monitoring plan
EcoSecurities International Ltd. - Tan Fang - Li Jian - Kunpeng Yan	➤ Applicability of selected methodology ➤ Baseline determination ➤ Additionality ➤ Emission reductions calculation ➤ Crediting Period ➤ Approval by the host country
Local government - Liu Yube - Su Zhixiong	➤ Environmental issues ➤ Stakeholder comments ➤ Sustainable development issues
Representative of local stakeholder - Hu Feng - Jiary Shugin	➤ Environmental issues ➤ Stakeholder comments ➤ Sustainable development issues

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve any outstanding issues which need to be clarified prior to KFQ's positive conclusion on the project design. In order to guarantee the transparency of the validation process, the concerns raised by KFQ and responses provided by project participant are documented in Table 3 of the validation protocol in Appendix A.

For this project, four (4) Corrective Action Requests (CAR) and seven (7) requests for Clarification (CL) were identified. These requests were presented to the project participant in a CAR/CL report on 31 August 2009. The additional information provided by the project participant to address these requests and revised PDD of 8 January 2010 resolved the all Corrective Action Request and requests for Clarification to KFQ's entire satisfaction.

2.4 Internal Quality Control

According to KFQ's Procedure for deciding whether to proceed request for registration, the final validation report and validation findings underwent a technical review before being submitted to the project participants for requesting registration of the project activity. The technical review was performed by a technical reviewer qualified in accordance with KFQ's qualification scheme for CDM validation and verification.

3 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

3.1 Participation Requirements

The project participants are Inner Mongolia Xingjin Wind Power Co., Ltd. (hereinafter, PP or Project owner) as the project owner from the host Party, the People's Republic of China('China), and EcoSecurities International Ltd., representing the Annex I Party, the United Kingdom of Great Britain and Northern Ireland('UK'). Both Parties meet the requirements to participate in the CDM.

The Letter of Approval (LoA) from China was obtained on 16 June 2009. The LoA confirms the project's contribution to sustainable development of China and Inner Mongolia Xingjin Wind Power Co., Ltd.

The approval letter was provided by PPs and the validation team checked the China DNA website* to confirm the approval of the project.

The DNA of United Kingdom has also issued LoA on 30 November 2009 by UK DNA (Department of Energy & Climate Change), authorizing EcoSecurities International Limited as a

* <http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2276.pdf>

project participant. The validation team checked detail information such as logs, address, website, signature & name etc. in LoA of UK and found that all information are consistent with the registered CDM projects. Furthermore the e-mail address to send the LoA of UK to the project participant is cross-checked by KFQ and confirmed that LoA of UK was informed from UK DNA to the PP on 30 November 2009 by e-mail. Thus the validation team confirmed that LoA of UK provided from the PP is not doubt its authenticity.

Finally, the validation team has also checked the consistency of the project participants' information in section A.3 and Annex 1 in the PDD and DNA approval letters.

The validation did not reveal any information indicating that the project can be seen as a diversion of official development assistance (ODA) funding towards China. The financing structure of the project activity is 20% from equity of project owner and 80% loan from China Construction Bank.

Nevertheless, CAR 1 was raised in the course of the validation and was successfully closed (ref Annex: Validation Protocol- Table 3).

3.2 Project Design

The construction of the wind power station to generate power and contribute to sustainability of power generation of the North China Power Grid (NCPG) is the main objective of the proposed project in Hangjin County, Ordos City, Inner Mongolia, China.

The project has a total installed capacity of 49.5MW and is expected to supply 101,689MWh to the NCPG annually. The expected CO₂ reduction is estimated to be 107,267 t CO₂e per year and 750,869 t CO₂e over the first 7 years crediting period. Moreover, the project will contribute to sustainable development by reducing the dependence on fossil fuels for power generation furthermore it will contribute to the local economic development through creation of new employment.

The starting date of the project has been validated by KFQ as 5 September 2008 which represents the date of the purchase agreement of equipments for wind generator units between PP and Xingiang Goldwind Science & Technology Co., Ltd. Therefore, KFQ confirmed that this starting date is the earliest date at which either the implementation or construction or real action of a project activity begins after reviewing the documents below.

- Purchase agreement of equipment: 5 September 2008
- Contract for purchase of box transformer: 9 September 2008
- Construction approval: 10 September 2008
- Civil work construction contract: 15 September 2008

- Contract for purchase of tower: 30 September 2008
- Contract for purchase of box transformer: 30 September 2008

The operational life time of the project is estimated as 20 years in the FSR and a renewable crediting period of 7 year is selected starting on 1 June 2010 or on the date of registration of the CDM project activity whichever is later.

The funding for the project does not lead to a diversion of official development assistance as according to the information obtained by the validation team. Financing of this project activity is planed through the equity investment from shareholders and commercial lending. The validation team checked bank loan contract dated on 28 June 2009 from China Construction Bank.

All the description of the project as contained in the PDD was identified through objective evidences such as the Feasibility Study Report, the Environment Impact Assessment and the construction approval of this project activity as well as physical site inspection.

Nevertheless, CL 1 was raised in the course of the validation and was successfully closed (ref Annex: Validation Protocol- Table 3).

3.3 Baseline Determination

The ‘Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project’ in Inner Mongolia Autonomous Region of China applies the approved consolidated baseline methodology ACM0002 “Consolidated baseline methodology for grid connected electricity generation from renewable sources (version 10). The methodology is applicable to the project as all relevant applicable conditions are met as follows.

- The project activity is new wind power project.
- The project activity involves the utilisation of renewable wind resources.
- The project activity does not involve switching from fossil fuels to renewable energy at the project site.
- The geographic and system boundaries of the North China Power Grid (NCPG) can be clearly identified and the relevant information of this grid is available.

Thus, the baseline scenario is that in the absence of the project activity the equivalent electricity would, have been generated by the operation of grid-connected power plants which are predominantly thermal plants and by the addition of new generation sources.

The project boundary is determined as the North China Power Grid (NCPG) and selected sources/gases are also identified and described in the PDD correctly with valid justification for the project activity. And it meets the requirement of the methodology ACM 0002. The validation

team validated the boundary and GHG sources by observation of the FSR, Grid connection agreement as well as the physical site visit.

According to methodology ACM0002 version 10, baseline emission is equal to the power supplied to grid multiplied by baseline emission factor EF_y and is calculated in a transparent and conservative manner for the Combined Margin (CM): a weighted average of the Operating Margin Emission Factor ($EF_{OM,y}$) and the Build Margin Emission Factor ($EF_{BM,y}$).

The OM and BM Emission Factors have been calculated on the basis of the Bulletin on Baseline Emission Factors of China Grid renewed by the Director Office of National Climate Change Coordination of NDRC (Chinese DNA) on 30 December 2008, and using the original data published in the China Electric Power Yearbook (information on installed capacity, power generation and the rate of internal electricity consumption of thermal power plants), the China Energy Statistical Yearbook (fuel consumption and the net caloric value of thermal power plants) and Revised IPCC 2006 Guidelines (Carbon oxidation factor of each fuel and carbon emission factor).

The OM and BM emission factor are calculated to be 1.1169 and 0.8687 t CO₂/MWh respectively and the CM (combined margin) of the project is calculated as 1.05485 t CO₂/MWh as below.

- $EF_{grid,CM,y} = (1.1169 \times 0.75) + (0.8687 \times 0.25) = 1.05485 \text{ t CO}_2/\text{MWh}$

With an expected export of 101,689MWh per year to the grid, the annual baseline emissions will be 107,267 t CO₂e.

As greenhouse gases emission from the project can be considered to be zero and no leakage calculation is required according to ACM 0002 methodology, the emission reductions are equal to baseline emissions.

Finally, the validation team has confirmed that the application, discussion and determination of the chosen baseline methodology are transparent and reasonable and baseline for this project activity is appropriately determined with reasonable assumption, data listed in the PDD by checking the documents and sources referred to in the PDD as well as crosschecking similar registered CDM projects in China.

Nevertheless, CAR 2 and 4 were raised in the course of the validation and were successfully closed (ref Annex: Validation Protocol- Table 3).

3.4 Additionality

The additionality of the project has been established using the “Tool for the demonstration and assessment of additionality” version 05.2 approved by the CDM-EB.

Through our thorough investigation and analysis, we can state that proposed project activity is additional as it would not have happened in the absence of CDM. Details of the assessment for additionality of the project are as below.

Identification of alternatives to the project activity consistent with current laws and regulations

Four alternative baseline scenarios including the proposed project activity without CDM have been identified as follows in accordance with ACM 0002, VVM para 103 and para(4) of the “Tool for the demonstration and assessment of additionality(ver 05.2).

Sub-step 1a: Define alternatives to the project activity.

Alternative baseline scenarios are:

- (1) The proposed Project activity undertaken without being registered as a CDM project activity.
- (2) Continuation of the current situation.
- (3) Construction of a thermal power plant with the same installed capacity or the same annual power output.
- (4) Construction of a power plant using another renewable energy resource with the same installed capacity or the same annual power output.

According to the China Electric Power Yearbooks (2003-2007), the installed capacity of other renewable energy technologies apart from wind and hydropower resources is 0 MW in Inner Mongolia Autonomous Region. And also the project site is located in a flat plain, and there is no potential for a hydroelectric facility or the same electricity generation as the proposed project. . Moreover, the Project owner, Inner Mongolia Xinjin Wind Power Co., Ltd, has been licensed for wind power development and operation. Therefore, Alternative (4) is not feasible.

Outcome of Step 1a are Alternative (1), (2) and (3).

Sub-step 1b: Consistency with mandatory laws and regulations.

According to the “Notice from General Office of the PRC State Council on Strictly Prohibiting Constructing Fossil Fuel Power Units with the Capacity of 135MW or below” (state council public notice [2002] No.6)” issued by China NDRC on 2 December 2005, a thermal power station with an installed capacity lower than 135MW is forbidden to build. Therefore, Alternative (3) is not feasible.

Outcome of Step 1a are Alternative (1) and (2).

The “Renewable Energy Law of the People’s Republic of China” (effected from 01 January

2006) is aimed to promote renewable energy in China. However, there are no direct incentives such as financial grants, higher tariffs, or subsidized loans available for those types of project.

In addition, the agenda “China’s 11th Five-Year Plan (2006-2010)” is included energy efficiency and renewable energy, but there is no legislative requirement to meet the projections under this Plan.

There are no laws compelling the project developer to develop wind power plants. Therefore Alternatives (1) and (2) identified are in line with the requirement.

Thus the validation team concludes that the “Tool for the demonstration and assessment of additionality (Ver 05.2) has been correctly applied to the identification of alternatives to the project activity and the identification of alternatives are complete under relevant national and/or sectoral policies and circumstances.

Prior consideration and continued action to secure CDM status

As starting date of the project activity (5 September 2008) is after 2 August 2008, the validation team had assessed the evidence that the project participant(s) informs a China DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity according to the ‘Guidance on the demonstration and assessment of prior consideration of the CDM, Version 01 (EB 41 meeting report, Annex 46)*’.

The validation team checked that the PP informed their intention to seek CDM status for the proposed project activity to the UNFCCC on 3 March 2009. And the PP has received UNFCCC’s response of it on 5 March 2009. This notification was made within six months of the project activity starting date (5 September 2008) and contained the precise geographical location and a brief description of the proposed project activity.

Even though PP noticed their project to the UNFCCC Secretariat by e-mail, the validation team had assessed the evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. The consideration of CDM benefits prior to the starting date of the project activity has been found in the management meeting minute held on 2 September 2008.

On 2 September 2008, the board of directors meeting regarding decision of CDM project applying was held. The board of directors were aware of CDM development in China at that time and it was decided to apply for CDM to implement the project as implementation of the project activity without CDM is expected poor financial return.

* “Guidance on the demonstration and assessment of prior consideration of the CDM, Version 01” was valid from 2 Aug. 2008 to 16 Jul. 2009. The PP noticed the proposed project activity to the UNFCCC secretariats on 3 Mar. 2009 according to the guidance and this guidance was still valid at the time of the notification by the PP.

These events are demonstrated through reviewing the meeting minute of the board directors which is described investment decision with CDM for the proposed project by project owner, Inner Mongolia Xinjin Wind Power Co., Ltd.

To proceed with the application, ERPA was signed with EcoSecurities International Limited on 21 January 2009. And the PP notified intention to seek CDM status to UNFCCC secretariat by e-mail on 3 March 2009 and received LoA of China on 16 June 2009 from China NDRC. After then DOE signed as KFQ in 29 June 2009.

The validation team was able to verify all the relevant documents which demonstrate that benefit from CDM had been seriously considered before the starting of the project activity and the project is continuously developed in the framework of the CDM.

In conclusion, KFQ confirmed that the CDM was seriously considered in the decision to the starting date of the project activity by the notification to UNFCCC secretariats. Also the project participants have demonstrated through evidences and official documents that the sequence of the events is coherent and reliable which shows the continued action to secure CDM status further demonstrating the additionality of the project.

Investment analysis

▪ Choice of approach

The benchmark analysis option has been adopted for the project activity as it generates revenues by the sale of power to the grid and the PP has no alternative with investment of comparable scale. Thus choice of benchmark analysis (option III) is valid for conducting the investment analysis.

▪ Benchmark selection

The evaluation of the project's financial viability is based on the internal rate on return (IRR). The PP selected the benchmark rate, as 8% according to the 'Interim Rules on Economic Assessment of Electrical Engineering retrofit projects' issued by the Operations Department of Power Generation and Power Transmission of the State Power Corporation of China in year 2002. The benchmark of 8% is therefore appropriate for this project.

Furthermore, KFQ was able to confirm this is suitable and reasonable as followings:

- a) This benchmark, 8% is in line with the "Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects" determined by the national administration of wind power industry in China. The rule is widely applied in China for assessing the financial viability of such wind power projects.

- b) The validation team also checked any previous investment decision by the PP, Inner Mongolia Xinjin Wind Power Co., Ltd. involved and found that 2 wind farm projects* applied 8% of benchmark.
- c) The benchmark rate, 8% is able to also be seen from other similar wind power projects in China, recently registered under CDM and all of them referring to this rule.

Hence, the validation team concluded that this benchmark, 8% reasonable for the project.

▪ **Input values**

The input values used in the investment analysis are taken from the FSR which has been the basis of the decision to proceed with the investment in the project. And consistency of input values applied in the investment analysis and associated spreadsheet are checked by the validation team. The FSR was developed by the Inner Mongolia Institute of Electricity Power Survey and Design in June 2008 and it was approved by the DRC of Inner Mongolia Autonomous Region on 23 July 2008. The period of time between the approval of the FSR (23 July 2008) and the starting date of the proposed project (5 September 2008) is only two months therefore it can be confirmed that it is unlikely in the context of the project that the input values would have materially changed.

To confirm whether the input values in the investment analysis are valid and applicable at the time of investment decision and they have been applied consistently, the audit team reviewed the FSR and its approval letter. Further to this, KFQ cross-checked the applied values with available actual evidences and relevant literatures as well as similar projects in Inner Mongolia Autonomous Region that are either already registered or currently under validation.

As a result, KFQ was able to confirm that the input values in the investment analysis are valid and applicable at the time of investment decision and they have been applied consistently.

The details on assessment for validity and applicability of each input values are as follows:

Static total investment cost: 459.11 million RMB (9,275 RMB/kW)

Static total investment cost is taken from the FSR. The validation team compared the proposed project activity with other 28 similar wind power projects in Inner Mongolia Autonomous Region to check the validity of total investment cost.

The unit investment cost (9,275 RMB/kW) for the proposed project activity is lower than the average unit investment cost of other similar projects which is 9,757 RMB/kW (7,809~11,719 RMB/kW), hence, the unit investment cost is deemed to be reasonable by KFQ.

* Inner Mongolia Hangjin Yihewusu Wind Power Project
<http://cdm.unfccc.int/Projects/Validation/DB/S114VOFRK68Y1PU4SWTJWTGARKISYQ/view.html>
 Inner Mongolia Wujier Phase I Wind Power Project
<http://cdm.unfccc.int/Projects/Validation/DB/ICH7FYU0BYIQLD177QP1SB6MCTUTWB/view.html>

Furthermore, the validation team reviewed actual expenditure for this project activity such as civil work, equipment purchase of turbine & generators, towers and box transformers etc which shown that approximately 400.7 million RMB (87.3%) was already incurred by the time of validation. And we were also able to check that approximately 458.8 million RMB (99.9%) of total investment cost was expensed to the start of December 2009 through reviewing the investment summary document of Yihewusu Phase II project on 15 December 2009 provided by the PP.

Based on the above assessment, KFQ can conclude that static total investment cost in financial analysis is not overestimated and valid at the time of the investment decision.

Annual O&M cost: 7.617 million RMB (1.7% of the total investment cost, 0.075 RMB/kWh)

Annual O&M cost is taken from the FSR. The O&M cost of this proposed project activity is 1.7% of the total investment cost and 0.075 RMB/kWh. This cost is consists of repair cost, salary & welfare, insurance fee, material cost and other cost.

To check validity of O&M cost, the validation team reviewed it with other 28 similar projects in Inner Mongolia Autonomous Region and found that O&M cost for this proposed project activity is lower than the average O&M cost (2.2% of the total investment cost 0.088 RMB/kWh).

Furthermore, the validation team cross-checked each item of O&M cost with similar projects such as repair cost, salary & welfare, insurance fee, material cost and other cost and found that all of them is within a range of other similar projects. Especially KFQ examined salary & welfare level of the PP and found that the monthly salary & welfare of the PP's company is approximately 138.9% (97,905 RMB/month) which is higher than the budget of the FSR (70,500 RMB/month).

Through our comprehensive and thorough analysis, the validation team conclude the applied value is not overestimated and is valid.

Electricity Tariff: 0.51 RMB/kWh (incl. V.A.T)

The tariff is taken from the FSR which was approved by the DRC of Inner Mongolia Autonomous Region on 23 July 2008. The tariff in the FSR was estimated as fixed 0.51 RMB/kWh (incl.VAT) during the 20-year operational lifetime, which the third party design institute, the Inner Mongolia Institute of Electricity Power Survey and Design considered the government directive tariff guidelines.

According to the tariff guidelines, ‘Notice on Feed in Tariff of Renewable Energy Project (Fa Gai Jia Ge[2007]3303)’ issued by NDRC on 3 December 2007 and ‘Approval of the Electricity Price of Renewable Energy Power Generation Projects in Some Provinces’ (Fa Gai Jia Ge [2007] 1260) issued by NDRC on 9 June 2007, the NDRC regulated the tariff of wind power projects in West Inner Mongolia at 0.51 RMB/kWh (incl. VAT) as the maximum tariff. Also these tariff guidelines state that the approved tariff applies for the first 30,000 operating hours and afterwards a lower tariff closer to the average grid tariff will be granted to the project. Thus this tariff, 0.51 RMB/kWh (incl. VAT) is in line with the government tariff guidelines which were valid at the time of the investment decision.

The validation team checked the method to determine the tariff for wind power projects in China and found that the methods are Competitive tendering process and Government approved electricity tariff. The proposed activity falls under Government approved electricity tariff because the proposed project is connected to, and obtained permission to sell the generated electricity to, the West Inner Mongolia Power Grid. As the tariffs offered to wind power projects are set at the provincial level, only wind power projects connected in the province are considered in the following analysis of wind power project tariffs.

Wind power projects from the two different regions within Inner Mongolia (West Inner Mongolia and East Inner Mongolia) fall under different tariff regimes because West Inner Mongolia Power Grid is connected to North China Power Grid while the East Inner Mongolia Power Grid is connected to Northeast China Power Grid. The tariff that NDRC has approved for wind projects is 0.51 RMB/kWh in West Inner Mongolia and 0.54 RMB/kWh in East Inner Mongolia. Since 2007, the government approved tariff has remained constant at 0.51 RMB/kWh (incl. VAT) and the new wind power projects in West Inner Mongolia has been set and is still 0.51 RMB/kWh (incl. VAT) as evidenced by the subsequent tariff notifications issued by the NDRC (Fa Gai Jia Ge [2008]1876 dated 23 July 2008 and Fa Gai Jia Ge [2009]1906 dated 20 July 2009). Moreover, the local DRC issued a approval on 28th October 2009 (Nei Fa Gai Jia Zi [2009] 2410), which mentioned the tariff for this specific project will be 0.51 RMB/kWh (incl. VAT).

Finally, the validation team cross-checked and compared it with other similar 28 projects in Inner Mongolia Autonomous Region and found that the tariff of the proposed project, 0.51 RMB/kWh (incl. VAT) is slightly higher than the average tariff (0.5 RMB/kWh (incl. VAT)) of other similar projects. And for robust confirmation of the validity of those values, the validation team tested IRR changing applying the highest tariff (0.579 RMB/kWh) which is 14% higher than the tariff used for the project in West Inner Mongolia and found that IRR becomes 7.60% which is below the benchmark rate 8%.

Thus KFQ concluded that the application of the tariff in FSR, 0.51 RMB/kWh (including VAT) is valid for the project at the time of investment decision.

Annual output: 101,689 MWh (Load factor: 23.5%)

Annual output is taken from the FSR which was determined by the third party design institute, the Inner Mongolia Institute of Electricity Power Survey and Design.

The validation team checked the design parameters of wind turbine manufactured by Xingjiang Goldwind Science & Technology Co., Ltd. prescribed in the FSR and found that the annual operating hours, 2,054.3 hr/yr (Load factor: 23.5%) was designed based on 45 years of wind data (1962-2006) in the local area, internal use, transmission loss and other losses in line with the Notes on the issue of China Wind Power Generation reduction issued by NDRC on 2 June 2009 which are referred to the national standard, the Procedures for Developing Feasibility Study Report for Wind Farm Power Generation Projects (DL/T5067-1996), The Methods for Developing Pre-feasibility Study Report for Wind Farm Projects(NDRC Energy[2003] No.403), and The Methods for Developing Feasibility Study Report for Wind Farm Projects (NDRC Energy [2005] No.899).

Even though the plant load factor is very different depending on the wind resource, the validation team cross-checked the electricity generation (plant load factor: 23.5%) with other similar wind power plants in Inner Mongolia Autonomous Region. It shows the range, 24.7%~30.8% and higher than the proposed project, 23.5%. Thus the validation team investigated the reason of relatively lower plant load factor of the proposed project and found that the selection of the option of 750kW turbine considering the supplying capacity of the manufacture in the FSR and the arrangement of wind farm construction of the project developer result in the low plant load factor. In other word, the proposed project is scheduled by the project to start construction just three month after the FSR, at that time, the 1,500kW wind turbine is not available for the project owner from the supplier (Xingjiang Goldwind Science & Technology Co., Ltd). Therefore the only alternative left for the project owner is 750KW wind turbine which has also been identified in the FSR. The project owner was already aware that the plant load factor of 750kW wind turbine is lower than the larger wind turbines at the time of investment decision (the board meeting, 2 September 2008).

Further more, KFQ tested IRR of the other alternative used 1500kW turbines (which will increase the load factor) through relevant evidences related to the quantitative analysis provided by the PP and found that the load factor will be 21.5% higher up to 28.62%, but total investment will also increase by at least 22% to 558,980,000 RMB^{*}, the overall effect is that the project IRR will decrease to 5.57%, which is less than the original IRR when 750 kW turbines are used.

^{*} The increase on total investment is according to the FSR of Inner Mongolia Wujier Phase I Wind Power Project

Thus the validation team concluded that the choice of 750kW by the PP at the time of the investment decision is reasonable considering the circumstance of turbine supply from the manufacturer and the investment increment caused by high price and relevant installation costs of 1500kW turbines.

The plant load factor has been defined in accordance with EB 48 Annex 11 “Guidelines for the reporting and validation of plant load factors (Version 01)” as it was determined by a third party contracted by the project participants. Therefore the validation team can conclude that estimated plant load factor and operating hour is reliable source to calculate electricity generation by proposed project activity. Also no significant changes will occur on this parameter during the project operational lifetime.

KFQ, therefore, concludes that the power supplied to the grid has been appropriately worked out to be supplied 101,689 MWh to the grid.

TAX

The validation team confirms that the tax rates for Income tax (25%), City maintenance and construction tax (5%), Educational surcharge tax (3%) and Value added tax (8.5%) are properly applied in accordance with China regulation and also Income tax (25%) is correctly calculated in accordance with EB 51 Annex 58, Guidelines on the assessment of investment analysis (version 03). Furthermore, those rates are compared with rates used in other wind power projects in Inner Mongolia Autonomous Region.

Residual Value: 5 %

Residual value for this project activity is 5% which is from the FSR. The validation team checked it with Guo Shui Han [2005] 883 issued by the National Tax Bureau on 14 September 2005 that indicates residual value can be less than 5% of fixed asset and should be decided by project owner. Thus we can confirm that the residual value of this project activity is in accordance with the Regulation.

Operational lifetime: 20 years

The 20 years operational lifetime from the FSR and validation team confirm that it is reasonable based on analysis of 28 similar projects (average 21 years, range from 20 to 25 years) and our sectoral knowledge. Thus we confirm that the lifetime applied is valid and appropriate for this proposed project activity.

▪ Calculation and conclusion

The validation team has checked all sources of the IRR calculation, as presented in Sub-step 2c in the PDD. Furthermore the calculation spreadsheet completed by PP and relevant documented evidence were cross-checked with the values in the PDD.

The project IRR without CDM revenues is 5.94%, which confirms that the project in the absence of CDM benefits and compared to the benchmark Project IRR of 8% is not financially attractive. With CER revenues the project IRR increases to 8.86%, which is above the benchmark.

▪ **Sensitivity analysis**

A sensitivity analysis is performed in PDD, by taking into account variation need to reach 8% benchmark in operating cost, investment cost, electricity tariff and operating hours: -117%, -14.3%, +17.1% and +17.6%. It deems reasonable to use the applied method and substantial variation of these parameters have been moreover considered unlikely to occur:

1) **Annual operating cost**

Annual operating cost is very dependent on the prices of raw materials fuels & power and labour salary. According to the China statistical Year Book, the prices of raw materials fuels & power have risen by average 0.78% during 2000~2007 and the price of total wage bill of staff and workers has risen by average 16.3% during 2003~2007. Thus, -117% in annual operating cost is not likely to occur.

2) **Static total investment cost**

Static total investment cost is very dependent on the prices index such as industry products, raw materials, fuels & power, investment in fixed assets and staff salary. According to the China statistical Year Book, the price of investment in fixed assets have risen by average 0.5% during 2006~2007. Moreover the price of total wage bill of staff and workers has risen by average 16.3% during 2003~2007. Thus, -14.3% in the static total investment cost is not likely to occur.

3) **Electricity tariff**

The tariff at which the IRR of the project activity could reach the benchmark would need to be 0.5976 RMB/kWh (incl. VAT) which is 17% above the tariff used in the PDD, and is higher than any tariff approved in the West Inner Mongolia. Furthermore, the tariff regulation indicates that the tariff of the Project will be 0.51 RMB/kWh in the first 30,000 hours of its operation. After the 30,000 hours, the tariff of the Project will be received the average tariff for dominant thermal power in the province, Inner Mongolia Autonomous Region, which is 0.2509 RMB/kWh at present reference, Inner Mongolia Power grid program of multilateral trade markets, issued by Inner Mongolia Autonomous Region Economy Committee on 11 April 2008. So it's very difficult to change the tariff

because the tariff price is strictly regulated by Chinese government and it is established on strict regulation rather than the market mechanism in China. Thus + 17.1% in electricity tariff is not likely to occur.

4) **Operating hours**

The expected operating hours of the project is calculated based on 45 years historical data and electricity demand. As the plant load factor determined by a third party contracted by the project participants, it can be confirmed that the operation hours have been estimated reasonably and no significant changes except decrease will occur on this parameter during the project operational lifetime. Thus, based on validation team's knowledge of wind power project and sectoral expert's opinion on the operating hours, assuming a +17.6% in annual operating hours is not likely to occur.

These results show that even under very favorable circumstances the Project IRR is still lower than the 8% benchmark. As a result, we can conclude that the Project overall was also not financially attractive.

Thus, KFQ conclude that the applied parameters and variation ranges are complete and suitable for the proposed project and the sensitivity result supports that the project is financially unattractive without CER revenues.

● **Common practice analysis**

Common practice analysis has been validated as follows.

For identification of similar activities, the additionality tool requires considering location, investment circumstance, scale, technologies, and financing condition.

To comply with these requirements, the PDD applied three conditions for identification of similar activities: 1) located in Inner Mongolia Autonomous Region, 2) construction started in and after 2003, and 3) with installed capacity from 25MW to 75MW, which are considered appropriate.

Projects located in Inner Mongolia Autonomous Region

The common practice analysis has been performed considering the Inner Mongolia Autonomous Region as the relevant geographical extension. The PPs defined the relevant common practice extension on the basis of differences (investment conditions, natural conditions, government policies etc.) among provinces. General conditions for investment differ province by province, as each province has their own policy on renewable power project investments. And the physical condition of a project site is determined largely by the wind velocity condition, which is affected

by weather and geographical conditions which vary province by province. Therefore confirm that the relevant parameters as location, infrastructure, economical situation and development have been taken into account in order to define the region to be used for the common practice.

Projects started in and after 2003

Before 2003, wind power projects in China were undertaken under non-commercial conditions with supporting policies such as higher tariffs, domestic loan subsidies, bilateral soft loan financing and multilateral finance, therefore most wind projects were built as monopolistic power company ‘pilot-projects’ which each wind farm is less than 30MW and still could not be commercialized. After 2003, NDRC changed the regulations which required the wind projects are developed on a commercial basis, through a bidding process. As such, investment circumstances for wind power projects were fundamentally changed after 2003, it is considered appropriate to include only wind power projects of which construction started in and after 2003.

Projects with installed capacity from 25MW to 75MW

In China, there is no official standard to classify wind power project by scale, therefore the project owner decided the classification range, $\pm 50\%$ which is used as the boundary to choose similar project. This classification range is accepted by the EB for other similar registered projects in China. According to this classification, other wind power projects are listed based on the data source, the “Statistics of Installed capacity of wind farm in China, 2007” by Mr. Shi Pengfei, vice chairman of Chinese Wind Association. The statistic is the latest version and listed all wind farm projects with locations, installed capacity, commissioned date, manufacturers etc. in China including non-CDM projects. This data source is widely applied for the common practice analysis in the wind power projects in China. Hence comparable scale can be considered appropriate for the common practice analysis.

Referring to the Statistics of Installed capacity of wind farm in China in 2007 as the data source, we confirm one project have been appropriately identified with above described opinion.

The selected one similar wind power project was analyzed with the investment circumstance, to differentiate from proposed project as shown in the table.

Comparison between the proposed project and similar project in Inner Mongolia

Project name	Total capacity	Start of Operation	Financial benefit
The proposed project	49.5MW	Under test-run	No supporting
Dali Phase III	30MW	2004	Demonstration Project supported by national debt fund (interest rate as 2.5%)*.

* Data source of Daili Phase III projects

*Note: The table for common practice analysis in the PDD includes some other projects which are seeking support from CDM.

As for Analysis of identified similar activities

The similar project identified show better investment circumstance than the proposed project.

- Dali phase III (30MW) wind project was started operating after 2003 without CDM support and was a Demonstration Project supported by national debt fund with lower interest rate, 2.5%. And this national debt fund is no longer supporting in Inner Mongolia Autonomous Region and the proposed project does not benefit from such support.

Thus the validation team reviewed relevant reference (www.bond-china.com) to explain above circumstance and confirmed that the proposed CDM project activity is not common practice based on the comparison of the parameters such as investment circumstance.

Nevertheless, CAR 3, CL 2 and CL 3 were raised in the course of the validation and were successfully closed (ref Annex: Validation Protocol- Table 3).

3.5 Monitoring Plan

The monitoring methodology is in line with the approved monitoring methodology, ACM 0002_Ver.10 – Consolidated baseline methodology for grid-connected electricity generation from renewable sources. The project, grid-connected renewable power generation, the project emissions are regarded as Zero.

In the project's wind power case, only baseline emissions need to be monitored. The project emissions are regarded as zero and leakage emissions do not need to be considered when using ACM0002 version 10. Leakage emissions do not need to be considered when using ACM0002. The monitoring of sustainable development indicators is not required by the National Development and Reform Commission (NDRC, China DNA).

Nevertheless, CL 4 was raised in the course of the validation and successfully closed (ref Annex: Validation Protocol- Table 3).

3.5.1 Parameters determined ex-ante

The emission factor of the NCPG is fixed ex-ante for the entire crediting period. The formulas and values selected for the calculation are listed in the PDD. Formulas and values were verified by KFQ and found correct.

For the calculation of the OM emission factor, the simple OM method is selected because a) data are not available for applying the Dispatch data analysis OM method, and b) low cost/must-run plants constitute less than 50% of the total grid generation.

Aggregated generation and fuel consumption data used since more disaggregated data are not available for the NCPG. Country specific data for the net calorific value (NCV) of the fossil fuels were obtained from the China Energy Statistics Yearbook 2005~2007. The use of the 2006 IPCC Guidelines for the fuel emission factors is deemed reasonable, as is the use of a generation fuel oxidation factor of 100%.

Vintage data for 2005, 2006 and 2007 are used for the OM emission factor calculation. These were the most recent data available at the time of the PDD submission. The OM emission factor is calculated to be 1.1169 t CO₂/MWh as the generation-weighted average for the selected three year period.

Because data on generation and fuel consumption are not publicly available in China, the EB Guidance of 'Request for clarification on use of approved methodology AM 0005 for several projects in China' Several projects in China' has been applied with the following data:

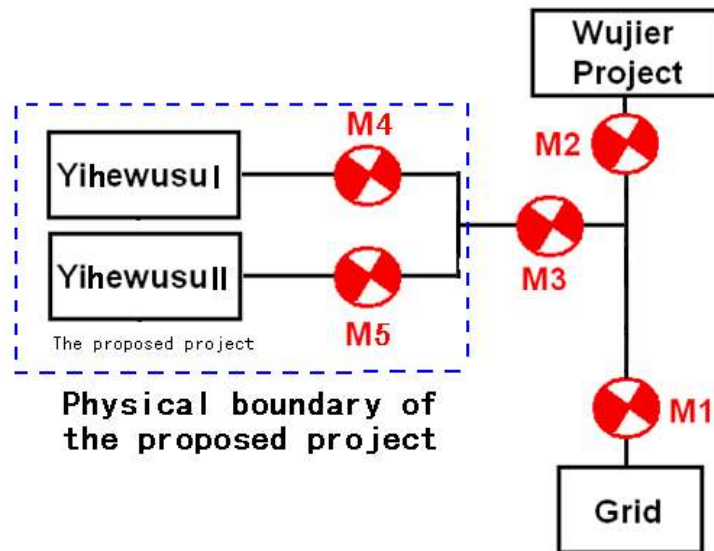
- The capacity additions from 2004 to 2006 are chosen and reach 33.79% of the 2006 total installed capacity:
- The weight of the capacity additions for thermal power plant is accounted for 95.64% of the capacity additions:
- The maximum efficiency of coal-fired power generation (98.93%), gas-fired power generation (0.97%) and oil-fired power generation (0.09%) from the NDRC's guidance are used to determine the thermal power generation emission factor, and those efficiency values are deemed conservative.
- The fuel NCV's, emission factors and oxidation factor of 100% mentioned above for the calculation of the OM emission factor.

The OM and BM emission factor is calculated to be 1.1169 t CO₂/MWh and 0.8687 t CO₂/MWh and the combined emission factor (CM) of the NCPG is thus calculated to be 1.05485 t CO₂/MWh.

3.5.2 Parameters monitored ex-post

The project will share the transmission line to the substation for electricity delivery to the Grid with the Yihewusu phase I and the Wujier station wind farms both of which belong to the same project owner of the proposed project and both are applied as CDM projects. The revenue meter (M1) measures the total power supplied to the Grid by all three projects connected to it, meters M2 measures the electricity exported and imported from the Wujier station and M3 measures that from the two Yihewusu stations.

Power exported and imported by the specific Yihewusu stations are measured by the meters M4 and M5. As the distance between M4 and M5 with M3 are the same the transmission losses between these meters are also the same, this also applies to M2 and M3, both of which are the same distance away from M1. All the power meters involved in the project monitoring are bidirectional and will be calibrated in line with the relevant national standard and with accuracy within $\pm 0.5\%$.



Line diagram

Therefore, the net power supply of this project activity ($EG_{facility,y}$) will be obtained by two steps.

Step1 Calculate electricity exported and imported by two Yihewusu stations ($EG_{ex,Yi,y}$ and $EG_{im,Yi,y}$).

$$EG_{ex,Yi,y} = EG_{ex,M1,y} \times \frac{EG_{ex,M3,y}}{EG_{ex,M2,y} + EG_{ex,M3,y}}$$

In which:

$EG_{ex,Yi,y}$: Electricity exported by two Yihewusu stations in year y (MWh);
 $EG_{ex,M1,y}$: Electricity exported by meter M1 in year y (MWh);
 $EG_{ex,M2,y}$: Electricity exported by meter M2 in year y (MWh);
 $EG_{ex,M3,y}$: Electricity exported by meter M3 in year y (MWh);

$$EG_{im,Yi,y} = EG_{im,M1,y} \times \frac{EG_{im,M3,y}}{EG_{im,M2,y} + EG_{im,M3,y}}$$

In which:

$EG_{im,Yi,y}$: Electricity imported by two Yihewusu stations in year y (MWh);
 $EG_{im,M1,y}$: Electricity imported by meter M1 in year y (MWh);
 $EG_{im,M2,y}$: Electricity imported by meter M2 in year y (MWh);
 $EG_{im,M3,y}$: Electricity imported by meter M3 in year y (MWh);

Step2 Calculate net electricity supplied by the proposed project ($EG_{facility,y}$).

$$EG_{ex,YiII,y} = EG_{ex,Yi,y} \times \frac{EG_{ex,M5,y}}{EG_{ex,M4,y} + EG_{ex,M5,y}}$$

In which:

$EG_{ex,YiII,y}$: Electricity exported by the proposed project in year y (MWh);
 $EG_{ex,Yi,y}$: Electricity exported by the two Yihewusu stations in year y (MWh);
 $EG_{ex,M4,y}$: Electricity exported by meter M4 in year y (MWh);
 $EG_{ex,M5,y}$: Electricity exported by meter M5 in year y (MWh);

$$EG_{im,YiII,y} = EG_{im,Yi,y} \times \frac{EG_{im,M5,y}}{EG_{im,M4,y} + EG_{im,M5,y}}$$

In which:

$EG_{im,YiII,y}$: Electricity imported by the proposed project in year y (MWh);
 $EG_{im,Yi,y}$: Electricity imported by the two Yihewusu stations in year y (MWh);
 $EG_{im,M4,y}$: Electricity imported by meter M4 in year y (MWh);
 $EG_{im,M5,y}$: Electricity imported by meter M5 in year y (MWh);

The net electricity supplied by the project ($EG_{facility,y}$) will be calculated by:

$$EG_{facility,y} = EG_{ex,YiII,y} - EG_{im,YiII,y}$$

The validation team wanted to be sure that there was no chance of over-accounting of the actual

EG_{ex,YIII} due to transmission loss assumed in above formula. So the validation team confirmed with the Grid company that they agree with this calculation method. The Grid company also confirmed that the line loss between M2/M3 and M1 is expected to be only 0.404% and the line loss between M4/M5 and M3 is expected to be only 0.2%, so the potential for difference between the line loss assumed in the above calculation and the actual line loss are negligible.

The project owner will measure electricity generation continuously and recorded on a monthly basis and crosscheck with measurement results with records for sold electricity. And all CDM relevant data will be kept at least 2 years after end of the crediting period.

Thus, the validation team concluded that above formula for the net electricity (EG_{facility}) to account for real reduction of GHG and the monitoring plan are valid in conformity with ACM 0002.

The project activity will have staffs involved in the CDM project monitoring in place by the time of its operation. The staff concerned will undertake the monitoring tasks including collecting electricity data and completing records, checking and analyzing the data, archiving relevant records and reporting. According to the training plan, the staffs have received training on monitoring to ensure the implementation of this monitoring plan during 15~19 August 2008.

The project owner has the overall authority and responsibility for the project management including monitoring of every parameters and the project developer is in charge of the final check of the data for the accounting of reduction amount and reporting.

Nevertheless, CL 4 was raised in the course of the validation and was successfully closed (ref Annex: Validation Protocol- Table 3).

3.6 Calculation of GHG Emissions

According to ACM 0002 (Version 10), emission reduction is calculated as following equation:

$$ER_y = BE_y - PE_y$$

- ER_y (t CO₂e/yr): Emission reductions
- BE_y (t CO₂/yr): Baseline Emissions
- PE_y (t CO₂/yr): Project Emissions
 - Project emissions can be considered as 0.

Emission reduction by this project activity is estimated to be 107,267 tCO₂e per year and 750,869 tCO₂e over the 7 year crediting period. The calculation involved has been checked by KFQ and is deemed to be correct.

Nevertheless, CAR 4 was raised in the course of the validation and was successfully closed (ref Annex: Validation Protocol- Table 3).

3.7 Environmental Impacts

An environmental impact assessment (EIA) has been conducted according to Chinese laws and regulations. The potential environmental impacts have been sufficiently identified. No significant environmental impacts are expected from the project activity. The EIA report was approved by the Inner Mongolia Environmental Protection Bureau on 7 May 2008.

The validation team reviewed the EIA report and its approval letter.

We conclude that the potential environmental impacts have been sufficiently identified in the PDD and an overall positive impact has been expected from the project activity.

3.8 Comments by Local Stakeholders

Besides the consultation process in EIA stage, a survey of local residents was carried out to invite comments from local stakeholders from May 2009. 31 questionnaires were distributed to local stakeholders, and a 100% feedback (31 questionnaires) was received. No negative comments have been received.

KFQ has checked all the questionnaires received and interviewed with 4 local stakeholders who represent the local residents and local government.

The survey shows that the proposed project receives strong support from the local people and comments received have been taken into consideration during construction and operation to achieve environmental and social benefits. Also validation team interviewed representative of local stakeholders and founded that all local people are very supportive and looking for growth of local economy.

The validation team confirmed that all relevant local stakeholders have been invited to consultation via appropriate media, the summary of comments received as provided in the PDD are appropriate, and due accounts was taken properly and described in the PDD well.

Nevertheless, CL 5 was raised in the course of the validation and was successfully closed (ref Annex: Validation Protocol- Table 3).

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

Korean Foundation for Quality published the project documents on <http://cdm.unfccc.int/Projects/Validation>. Starting date of the global stakeholder consultation process is 2 July 2009 and invited comments by Parties, stakeholders and non-governmental organizations during a period of 30 days.

No comment was received.

5 VALIDATION OPINION

Korean Foundation for Quality (KFQ) has performed a validation of the 'Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project' in Peoples Republic of China. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism and host country criteria, 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 modalities and subsequent decision by the CDM Executive Board.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, KFQ can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose. And it has provided KFQ with sufficient evidence to determine the fulfillment of stated criteria. The validation consisted of the following 3 phases : i) a desk review of the project design, the baseline and monitoring plan, ii) follow-up interviews with project stakeholders and iii) the Resolution of outstanding issues and the issuance of the final validation report and opinion.

The host country is the People's Republic of China and the Annex I country is the United Kingdom of Great Britain and Northern Ireland. Both countries fulfill the participation criteria and have approved the project and authorized the project participants. The China DNA confirmed that the project assists in achieving sustainable development.

The validation did not reveal any information that indicated that the project can be seen as a diversion of official development assistance (ODA) funding towards China.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. An analysis of the investment demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions. Additionally the assessment team reviewed the estimation of the projected emission reductions.

We can confirm that the indicated amount of emission reductions of 750,869 ton CO₂ over the 7 years credit period, resulting in a calculated annual average of 107,267 ton CO₂, represents a reasonable estimation using the assumptions given by the project documents.

The responsibilities and authorities of monitoring and maintenance are clearly defined and a detailed monitoring plan has been developed. There is no need to monitor the grid CO₂ emission coefficient as it is fixed ex-ante for the selected renewable crediting period.

In our opinion, the 'Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project', as described in the revised PDD of 8 January 2010 (version 03), meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology ACM 0002_Version 10. Thus the 'Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project' will hence be recommended by KFQ for requesting for registration as a CDM project to UNFCCC.

6 REFERENCES

Reference No.	Documentation and/or website	Remarks
1	Project Design Document for CDM project 'Inner Mongolia Wujier I Wind Power Project' - Version 01: 6 June 2009 - Version 03: 8 January 2010	
2	Supporting Excel Spreadsheet on IRR, EcoSecurities - Version 01: 13 July 2009 - Version 02: 10 January 2010	
3	ACM 0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources (Ver. 10) Tool for the demonstration and assessment of additionalilty (Ver. 05.2) EB 35, Annex 12 , Tool to calculate the emission factor for an electricity system (Ver. 01.1) EB 50, Annex 14 , Tool to calculate the emission factor for an electricity system (Ver. 02) EB 41 Annex 45 , Guidance on the Assessment of Investment Analysis (Version 02) EB 51 Annex 58 , Guidance on the Assessment of Investment Analysis (Version 03) EB 41 Annex 26 , Guidance on the Demonstration and Assessment of Prior consideration of the CDM (Ver.01) EB 49 Annex 22 , Guidance on the Demonstration and Assessment of Prior consideration of the CDM (Ver.03) Guidelines for completing the project design document (CDM-PDD) and the proposed new baseline and monitoring methodologies (CDM-NM) (Version 07) Tool for the demonstration and assessment of additionalilty (Ver. 05.2) Glossary of CDM terms (Ver. 04) EB 44 Annex 3, Clean Development Mechanism Validation and Verification Manual (Ver. 01) EB 48 Annex 11 "Guidelines for the reporting and validation of plant load factors (Ver. 01)	
4	Annex I country DNA Approval: 30 November 2009 Host country DNA: 16 June 2009	
5	Feasibility Study Report (FSR): June 2008, Inner Mongolia Institute of Electricity Power Survey and Design Approval : 3 July 2008, DRC of Inner Mongolia Autonomous Region	
6	Environmental Impact Assessment(EIA): 4 March 2008 Approval of Environmental Impact Assessment(EIA): 7 May 2008, Inner Mongolia Environmental Protection Bureau	
7	Notification e-mail: 3 March 2009, UNFCCC secretariat	

8	Bank loan contract: 28 June 2009, China Construction Bank	
9	Board member meeting minute: 2 September 2008, Inner Mongolia Xinjin Wind Power Co., Ltd.	
10	Purchase agreement of equipments: 5 September 2008, Goldwind Science and Technology Co., Ltd. Contract for purchase of box transformer: 9 September 2008 Construction approval: 10 September 2008 Civil work construction contract: 15 September 2008 Contract for purchase of tower: 30 September 2008 Contract for purchase of box transformer: 30 September 2008 Construction schedule: planed by the project owner	
11	Construction approval: 10 September 2008, Sate Grid Xinyuan Company Limited	
12	Grid connection agreement: 24 December 2008, Inner Mongolia Power (Group) Co., Ltd.	
13	ERPA: 21 January 2009, Inner Mongolia Xinjin Wind Power Co., Ltd. and EcoSecurities International Ltd.	
14	Sample of questionnaire to receive local stakeholders comments: 7 May 2009	
15	Employment plan: 8 July 2008	
16	Business license: 27 June 2008, Inner Mongolia Xinjin Wind Power Co., Ltd.	
17	Construction schedule,	
18	the FSR of Inner Mongolia Wujier Phase I Wind Power Project: June 2008, Inner Mongolia Institute of Electricity Power Survey and Design	
19	Investment summary document of Yihewusu Phase II project: 15 December 2009, China Beijing Water Conservancy & Hydropower Engineering Consulting Comapny	
20	Training contents and certificate of attendance: 25~29 August 2008, Inner Mongolia Xinjin Wind Power Co., Ltd.	
21	Technical comment for the transmission loss assumed in the formula for Yihewusu II project, 21 January 2010, Inner Mongolia Power (Group) Co., Ltd.	

22	China Electric Power Yearbook 2005 ~ 2007	
23	China Energy Statistics Yearbook 2005~2007	
24	National Coordination Committee on Climate Change, National Development and Reform Commission (NDRC) http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/2008/20081230102527637.pdf http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1888.pdf http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/2008/20081231101111351.pdf	
25	The General Office of the State Council, Notice on Strictly Prohibiting the Installation of Fuel-fired Generation with the Capacity of 135MW or below, decree No. 2002.6 http://www.cws.net.cn/guifan/bz%5cs116-95	
26	The guidance for deviation in use of methodology AM0005 by several project activities in China by EB. http://cdm.unfccc.int/Projects/Deviations http://cdm.unfccc.int/UserManagement/FileStorage/6POIAMGYOEDOTKW25TA20EHEKPR4DM http://cdm.unfccc.int/UserManagement/FileStorage/AM_CLAR_QEJWJEF3CFBP1OZAK6V5YXPQKK7WYJ	
27	State Council's Decision on Reforming Investment Approval Process, 16/07/2004.	
28	Point Carbon's CDM & JI Monitor: Chinese official defends additionality of renewables in CDM, 21/03/2007	
29	<i>Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects</i> ([2002] No.623), the Operations Department of Power Generation and Power Transmission of the State Power Corporation of China,	
30	National Bureau of Statistics of China http://www.stats.gov.cn/tjsj/ndsjs/	
31	Notifications & references for tariff Approval for the tariff of Yihewusu phase II wind power project (Nei Fa Gai Jia Zi [2009] 2410): Local DRC, 28th October 2009 NDRC(http://www.ndrc.gov.cn/zcfb/zcfbtz/2007tongzhi/t20080218_193193.htm , http://www.ndrc.gov.cn/zcfb/zcfbtz/2007tongzhi/W020080222604285250301.pdf) http://www.trgov.gov.cn/Article.asp?NewsID=8529 (fagaijiage[2006]1228hao) http://61.138.111.233/nmgwj/jgzz_text/view-text.asp?id=73 (neifagaijiazi[2007]2412hao) http://61.138.111.233/nmgwj/jgzz_text/view-text.asp?id=99 (neifagaijiazi[2008]188hao) the average tariff in Inner Mongolia since: 2006 http://www.nmgjw.gov.cn/nr.asp?id=5640 tariff of wind farm projects located in Ordos city: http://www.ndrc.gov.cn/zcfb/zcfbtz/2007tongzhi/W020080222604285250301.pdf China Wind Farm Report 2007 Notice on Feed in Tariff of Renewable Energy Project– issued by NDRC on 9 June 2007 http://www.hebwj.gov.cn/upfiles/xy_col32gjc__20070718164220007126.htm Notice on Feed in Tariff of Renewable Energy Project– issued by NDRC on 3 December 2007	

	http://www.ndrc.gov.cn/jgggl/zcfg/t20080218_193008.htm (Fa Gai Jia Ge[2007]3303) Notice on Feed in Tariff of Renewable Energy Project– issued by NDRC on 23 July 2008 http://www.ndrc.gov.cn/zcfb/zcfbtz/2008tongzhi/t20080813_230718.htm (Fa Gai Jia Ge[2008]1876) NDRC Notice on Perfection the Feed-in-tariff of Wind Farms Policy issued on July 20, 2009 http://www.sdpc.gov.cn/zfdj/jggg/dian/t20090727_292837.htm (Fa Gai Jia Ge[2009]1906)	
32	Fair value regulation Guo Shui Han [2005] 883 issued by the National Tax Bureau on 14 September 2005 http://www.chinesetax.net/hainan/admin/LAWS/Laws_TextDetail.aspx?LawsId=20284	
33	National debt fund http://www.bond-china.com	
34	Tax regulation The Central People's Government of the People's Republic of China, National Income Tax Law, http://www.gov.cn/ziliao/flfg/2007-03/19/content_554243.htm State Administration of Taxation, National VAT law, http://www.chinatax.gov.cn/n480462/n480513/n480919/index.html State Administration of Taxation, 50%-off discount on VAT for wind power project, http://www.chinatax.gov.cn/n480462/n480513/n480949/n644690/1013032.html Education Surcharge Tax Law http://www.law-lib.com/law/law_view1.asp?id=99771 City Maintenance and Construction Tax Law http://www.gov.cn/banshi/2005-08/19/content_24817.htm	
35	Common practice analysis Data source http://www.cwea.org.cn/download/display_info.asp?id=2 http://www.cwea.org.cn/download/display_info.asp?cid=&sid=&id=19 Huitengxil wind power project (http://wais.ee.kuas.edu.tw/energyworld/specialtopics/Wind/ref/ref/%AE%D7%A8%D2%A4%C0%AAR.htm) http://www.nwtc.cn/Article/ShowArticle.asp?ArticleID=814 Dali Phase III http://www.kskt.gov.cn:8080/old/news/2002-11-25-01.htm	
36	China regional electricity systems http://qhs.ndrc.gov.cn/qjzjz/t20090703_289357.htm	

Appendix A

Validation protocol for CDM project activities

Appendix A. KFQ Validation Protocol

Table 1. Mandatory Requirements for Clean Development Mechanism(CDM) Project Activity

Requirement	Reference	Conclusion	Cross Reference / Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art. 12. 2	OK	Table 2, B.6.
2. The project shall assist non-Annex I Parties in achieving sustainable development and the project has obtained confirmation by the host country that the project assists in achieving sustainable development.	Kyoto Protocol Art. 12. 2	OK	Table 2, A.2.6 DNA approval letter of host party, Republic of China, is submitted to DOE from PP.
3. The project shall assist non-Annex 1 Parties in contributing to the ultimate objective of UNFCCC.	Kyoto Protocol Art. 12. 2	OK	Table 2, B.6
4. The project shall have written approval of voluntary participation from the designated national authorities of each party involved.	Kyoto Protocol Art. 12. 5a/M&P 40 a	OK	Table2, A.3.3. The LoA issued on 16 June 2009 and 30 November 2009 by People's Republic of China and UK respectively. And these LoA have been provided together with the MoC to DOE
5. The emission reductions shall be real, measurable and give long-term benefits to the mitigation of climate change.	Kyoto Protocol Art. 12.5b	OK	Table 2, Section B.6.
6. Reduction in GHG emissions shall be additional to any that would occur in absence of the project activity.	Kyoto Protocol Art. 12.5c	OK	Table 2, Section B.4.
7. In case public funding from Parties included in Annex I is used for the project activity, these Parties 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 these Parties.	D 17/CP.7 CDM M&P Appendix B. 2	OK	Table 2, Section A.4.5. The proposed project activity can not be seen as a diversion of ODA funding towards Republic of China.
8. Parties participating in the CDM shall be designated a national authority for the CDM.	CDM M&P 29	OK	NDRC (National Development and Reform Commission) is DNA in China for CDM. And Department of Energy and Climate Change is DNA for UK.
9. The host party and the participating Annex I party shall be a Party to the Kyoto Protocol.	CDM M&P 30/31a	OK	The host party, People's Republic of China ratified the Kyoto Protocol on 30 August 2002 and has appointed a DNA Annex I party, United Kingdom of Great Britain and Northern

Appendix A. KFQ Validation Protocol

			Ireland, ratified the Kyoto Protocol on 31 May 2002 and has appointed a DNA.
10. The participating Annex I Party's assigned amount shall have been calculated and recorded.	CDM M&P 31b	OK	UK's assigned amount is calculated and recorded.
11. The participating Annex I Party shall have in place a national system for estimating GHG emissions and a national registry in accordance with Kyoto Protocol Article 5 and 7.	CDM M&P 31b	OK	UK has in place in national system for estimating GHG emissions and has in place a national registry.
12. Comments by local stakeholders are invited, a summary of these provided and how due account was taken of any comments received.	CDM M&P 37b	OK	Table 2, Section E
13. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts and considered significant by the project participants of the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	CDM M&P 37c	OK	Table 2, Section D
14. Baseline and monitoring methodology shall be previously approved by the CDM Executive Board.	CDM M&P 37e	OK	Table 2, Section B.1.1 and B.7.1
15. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP.	CDM M&P 37f	OK	Table 2, Section B.7

Appendix A. KFQ Validation Protocol

16. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 day, and the project design documents and comments have been made publicly available.	CDM M&P 40	OK	They were invited to provide comments through the CDM website during 30 days from 12 August 2009 to 10 September 2009 No comment was received.
17. A baseline shall be established in a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	CDM M&P 45c,d	OK	Table 2, Section B.2
18. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity of due to force majeure.	CDM M&P 47	OK	Table 2, Section B.2
19. The project design document is in accordance with the applicable CDM requirements for completing PDDs.	CDM M&P Appendix B, EB Decision, VVM 55/56/57	OK	CDM-PDD is in conformance with the UNFCCC CDM-PDD format version 03.2 and Guidelines Project Design Document (CDM-PDD) and the Proposed new baseline and monitoring methodologies (CDM-NM) version 07.

Table 2. Requirements Checklist

Question	Ref.	Crite ria	Comments	Draft. Concl.	Final Concl.
A. General Description of Project Activity					
A.1 Title of the project activity					
A.1 1 Does the used project title clearly enable to identify the unique CDM activity?	EB 41	Annex 12	The project title is Inner Mongolia Yihewusu Phase II 49.5MW Wind Power Project The project titled with the name of the project location and the energy source of the project. Hence, it can be clearly identified.	OK	OK
A.1 2 Are there any indication concerning the revision number and the date of the revision?	EB 41	Annex 12	The available GSP PDD is indicated as 01 version dated 6 June 2009, GSP started on 2 July 2009.	OK	OK
A.2 Description of the project activity					
A.2 1 Does the information in section A.2 and A.4 of PDD provide sufficiently the reader with a clear understanding of the nature of the proposed CDM activity?	VVM	58	Yes. The information provides the reader with a clear understanding of the proposed CDM project activity. The proposed project is a wind power project in Hangjin County, Ordos City, Inner Mongolia, People's Republic of China. The total installed capacity of the project is 49.5MW, comprised of sixty six (66) wind turbines (66 x 750 kW). The project activity is expected an average annual power generation of 101,689MWh during credit period. And also expected emission reduction as 107,267 ton CO ₂ e/yr during credit period. This project is connected to the Northern China Power Grid in People's Republic of China The overview of the project is transparently provided in section A.2 and A.4 of the PDD. During the on-site audit, the project activities described in the	OK	OK

			PDD have been proven by the audit team.		
A.2.2 Is the proposed project activities in existing or utilizing existing equipments? If so, does the description in the PDD reflect the project activity for the following types of CDM project activities unless other means are specified in the methodology(confirm physical site inspection). (a) Large scale projects (b) Non bundled SSC (c) Bundled SSC	VVM	60	No. The project activity is a newly-built wind power project involved 49.5MW install capacity, comprised of sixty six (66) wind turbines (66 x 750 kW).. The validation team confirmed the proposed project is a large scale projects applied ACM 0002 version 10 through physical site inspection.	OK	OK
A.2.3 Does the project activity involve the alteration of an existing installation or process? If so, Does the project description clearly state the difference the differences resulting from the project activity compared to the pre-project situation.	VVM	63	No. The project activity is a newly–built wind power project.	OK	OK
A.2 4 What proofs(eg. PDR, FSR, Permit, Physical site visit) are available demonstrating that the project description is in compliance with the actual situation or planning?	VVM	62	During the on-site assessment, numerous proofs for the described project activity were evidenced. They are summarized in the section 6 to this report. The planning is described in the Feasibility Study Report. The following data deliver evidences for the actual situation of the project activity: -FSR Approval: Development & Reform Commission of Inner Mongolia Autonomous Region, 23 July 2008 - Construction approval: 10 October 2008 - Equipment purchase contract : 5 September 2008 -Grid connection agreement: 24 December 2009 - ERPA: 21 January 2009, etc. The planning schedule in the past and for the future was clearly described by the construction schedule. The commercial operation start was in June 2009.	OK	OK
A.2 5 Is all information presented consistent with details provided by further chapters of the PDD, especially section A.4, A.4.3, B.3?	EB 41	Annex 12	Yes, it is verified that the description in the PDD is accurate and complete. All information provided is consistent with details provided in further chapters if the PDD.	OK	OK
A.2 6 Is the brief explanation how the project will reduce greenhouse gas emission transparent and suitable?	EB 41	Annex 12	Because the project activity is a renewable energy project, which will produce power for the substitution of grid electricity mainly from coal fired plants. Doubtless, this technology will reduce GHG emission significantly.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

A.2 7 Will the project create other environmental or social benefits than GHG emission reductions?	EB 41	Annex 12	Yes, as a renewable energy project, the project may substitute some coal fired power plant and produce positive environmental and economic benefits. Also it contributes to the local sustainable development and creating new job opportunities of the local people. And also contribute to enhancing the local investment environment.	OK	OK
A.3 Participation requirements					
A.3 1 Has the DNA of the Host Party involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval which confirms? - The country is a Party to the Kyoto Protocol - Participation is Voluntary - The Host Party confirming that the proposed CDM project activity contributes to sustainable development of the country - It refers to the precise proposed CDM project activity title in the PDD being submitted for registration.	VVM	44/45 /123/ 124/1 25	This document is a prerequisite for registration as per CDM Modalities and Procedures 40(a). The LoA from the DNA of China has been issues on 16 June 2009 and submitted to DOE by PP. And this LoA is issued by China DNA (The National Development and Reform Commission of the People's Republic of China). The LoA shows that China has ratified the KP, the project assists China in achieving sustainable development and is entered into voluntarily. The LoA refers to the precise proposed CDM project activity title in the PDD being submitted for registration.	OK	OK
A.3 2 Is the letter of approval from the Host Party is unconditional with respect to A.3.1 above?	VVM	46	The LoA from China is unconditional with respect to the aspects mentioned above.	OK	OK
A.3 3 Has the DNA of the Annex I country involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval which confirms? - The country is a Party to the Kyoto Protocol - Participation is Voluntary - The Annex I country confirming that the proposed CDM project activity contributes to sustainable development of the country and assists it in archiving compliance with part of their emission reduction commitment under Art. 3 of the KP. - It refers to the precise proposed CDM project activity title in the PDD being submitted for registration.	VVM	44/45	CAR 1 was raised requesting the PP to provide the LoA from UK. Please deliver the LoA issued by United Kingdom of Great Britain and Northern Ireland to the DOE.	CAR 1	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

A.3.4 Is the letter of approval from the Annex-I Party is unconditional with respect to A.3.3 above?	VVM	46	The LoA from UK is unconditional with respect to the aspects mentioned above.	CAR 1	OK
A.3.5 Are the letters if approval has been issued by the respective Party's DNA? If in doubt, verify with the DNA that letters of approval are valid for the proposed CDM projects activity/project participants and authentic	VVM	47/48 /53	Please refer to A.3.3	CAR 1	OK
A.3.6 Is the table required for the indication of project participants correctly applied?	EB 41 VVM	Annex 12 51/53	Yes. The table in A.3 of the PDD is correctly applied. The host party involved in the project is People's Republic of China and the Annex –I participating Party is United Kingdom of Great Britain and Northern Ireland Inner Mongolia Xinjin Wind Power Co., Ltd. is the project participant from the Host Party. And EcoSecurities International Ltd is the project participant from Annex-I party. Through document review of the LoAs and interview with the project participants, it has been validated that the two projects participants have been approved by China and UK respectively.	OK	OK
A.3.7 Is all information in participants/ Parties provided in consistency with contact details provided in annex 1 of the PDD	EB 41 VVM	Annex 12, 52	Yes, the information provided is consistency with further chapters of the PDD. Through documents review and interview with the project owner, it has been confirmed that there are no entities other than those approved as project participants included in Section A.3 and Annex 1 of the PDD.	OK	OK
A.3.8 Has the participation of each project participant has been approved by at least one Party involved, either in a letter or in a separate letter.	VVM	52/54 (a)	No. The host party involved in this project is People's Republic of China and the Annex I participating party is United Kingdom of Great and Northern Ireland. However LoA of Annex-I country has not been submitted to DOE to DOE.	CAR 1	OK

A.3.9 Are there no entities other than approved as project participants included in section A.3 of the PDD.	VVM	52	No. The private and public entities involved in the project activity are listed at section A.3 of the PDD. Host Party (P.R.China): Inner Mongolia Xinjin Wind Power Co., Ltd Annex I Party (United Kingdom of Great Britain and Northern Ireland): EcoSecurities International Ltd	OK	OK
A.4. Technological description of project activity					
A.4.1 Location of the project activity					
A.4.1.1 Does the information provided on the location of the project activity allow for a clear identification of the site?	EB	Annex 12	Yes. The project location could be clearly identified according to the PDD. The project is in Hangjin County, Ordos City, Inner Mongolia. And location of the project is given using geographical coordinates obtained with a Global Positioning System (GPS) receiver. They are: N 40°07'02" , E 107°31'42"	OK	OK
A.4.1.2 How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (Ownership, Licenses, Contracts etc.)?	VVM	62	The project approval issued by DRC of Inner Mongolia Autonomous Region and the EIA approval issued by Inner Mongolia Environmental Protection Bureau demonstrated that the project proponent can implement the project at this site, the power plant is under construction. Also, equipment purchase agreement (turbines) was signed 5 September 2008.	OK	OK
A.4.2 Categories of the project activity					
A.4.2.1 To which category (ies) does the project activity belong to? Is the category correctly identified and indicated?	EB 41	Annex 12	Yes. The capacity of the project is 49.5W and the generated electricity by wind source is supplied to grid. Hence this project activity belongs to sectoral scope 1: Energy Industries (Renewable Source)- Renewable Electricity Generation for a Grid. The category is correctly identified and indicated in A.4.2 of the PDD.	OK	OK
A.4.3 Technology to be employed by the project activity					

APPENDIX A. KFQ VALIDATION PROTOCOL

A.4.3.1 Is the technology implemented by the Project activity environmentally safe and sound ?	EB 41	Annex 12	Yes. The project activity will adopt wind turbines manufactured by a domestic manufacture Xinjiang Goldwind Science & Technology Co., Ltd. The technology employed by the proposed project is environmentally safe.	OK	OK
A.4.3.2 Does the description of technology to be applied provide sufficient and transparent input/information to evaluate its impact on the GHG balance?	EB 41	Annex 12	Yes. The project activity is a new wind power project, which will produce power for the substitution of grid supplied electricity mainly form coal fired power plants. Doubtless, these technologies will reduce GHG emissions significantly.	OK	OK
A.4.3.3 Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country(ies)?	EB 41	Annex 12	No, In this case, the advanced domestic-made facilities are used, hence, there is no technology transfer from Annex-I countries to the host country.	OK	OK
A.4.3.4. Is the information provided in compliance with actual situation or planning?	VVM	62	Yes, circumstance of the project activity described in the PDD is in compliance with the ‘Construction schedule’ which shows actual situation and planning of the project activity. And this is validated on-site on 18 August 2009. The construction works has been completed and commercial operation start was in June 2009. However, some of technical parameters of wind turbine in PDD are based on the data in the FSR. However it is recommend using real technical parameters according to the technical specification provided by equipment manufacture. -PDD Type: WTG750 Rated speed(m/s): 14 Hub height(m): 65 -Specification of turbines Type: S50/750 Rated speed(m/s): 14~15 Hub height(m): 60	CL 1	OK
A.4.3.5 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	EB 41	Annex 12	Yes. The technology for installation of new wind power plant has been fully developed and successfully implemented in China. The technology applied in the proposed project has no difference compared to others applied in similar wind power plants. Also, the common practice for electricity generation is still coal-fired power plant. Hence, the project definitely would result in a better performance than	OK	OK

			the common practice.		
A.4.3.6 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	-	-	We do not expect that there will be a substitution because the wind turbines and the other equipment will be newly commissioned. And the commercial operation starting was in June 2009. The life time of the project is under normal circumstances longer than the crediting period.	OK	OK
A.4.3.7 Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	-	-	Yes. The project owner, Inner Mongolia Xinjin Wind Power Co., Ltd. has conducted a training during 25~29 August 2008 to guarantee safe operation during the life time.	OK	OK
A.4.3.8 Does the project make provisions for meeting training and maintenance needs?	-	-	Yes. Training program for operation and maintenance will be provided during the operation life time.	OK	OK
A.4.4 Estimated amount of emission reductions over the chosen crediting period					
A.4.4.1 Is the form required for the indication of projected emission reductions correctly?	EB 41	Annex 12	Yes. The table used for the indication of projected emission reduction is correctly applied.	OK	OK
A.4.4.2 Are the figures provided consistent with other data presented in the PDD?	EB 41	Annex 12	Yes. The yearly emission reduction is estimated to be 107,267 t CO ₂ which is the result of emission factor of the times the annual electricity fed to the grid. The same figure is quoted in the entire PDD.	OK	OK
A.4.5 Public funding of the project activity					
A.4.5.1 Public funding for the project from parties in Annex I shall not be a diversion of official development assistance.	EB 41	Annex 12	Yes. 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 China. Project owner's equity capital and commercial loan from China Construction Bank compose the investment of this project. The loan evaluation and granting released by bank were reviewed by the validation team.	OK	OK

B. Application of a baseline and monitoring methodology					
B.1 Title and reference of the approved baseline and monitoring methodology applied to the project activity.					
B.1.1 Is the baseline and monitoring methodologies selected by the project participants previously approved by the CDM EB?	VVM	65/68	Yes. The methodology, ACM 0002 version 10 is valid from 11 June 2009 onwards. The validation team cross-checked the web site: http://cdm.unfccc.int/methodologies/DB/TQ93XE42QG4RY9YKSZX8E9NJ92JQQI/view.html	OK	OK
B.1.2 Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	EB 41 VVM	Annex 12 69	Yes. As clearly indicated the applied methodology is ACM0002 version 10. And the 'Tool for the demonstration and assessment of additionality (Ver 05.2) and the 'Tool to calculate the emission factor for an electricity system (Ver 02) are used.	OK	OK
B.1.3 Is the applied version the most recent one and/or is this version still applicable?	EB 41 VVM	Annex 12, 69	The 10 th version of ACM0002 is the latest one where the PDD was prepared and published for the GSP. The additionality tool (Ver 05.2) is the most recent version when completing this report.	OK	OK
B.1.4 Any methodologies or tools which the approved methodology draws upon and their version (e.g. "Version 02 of the tool for demonstration and assessment of additionality" or "Version 04 of ACM0002").	EB 41	Annex 12	Please refer B.1.1~B.1.3	OK	OK
B.2 Justification of the choice of the project category					
B.2.1 Has the selected methodology applicable to the project activity ?	VVM	66/68	The project is a grid-connected generation from a renewable energy source and does not involve on-site fuel switch from fossil fuels to a renewable source. This proposed project activity met the applicability criteria stated in the methodology ACM0002 (Ver 10) and justification of the choice of the methodology is provided in B.2 of the PDD. - The new wind electric power project is wind power station - Utilization of wind resource - Not involving switching from fossil fuels to renewable energy at the project site - The geographic and system boundaries of the Northern China Power	OK	OK

			Grid can be clearly identified and the information of this grid is available. Thus, baseline and monitoring methodology is the most applicable for this project among the existing approved baseline methodologies.		
B.2.2 Are the applicability criteria in the baseline methodology all fulfilled and described in the PDD?	VVM	66/70 /75	The project is the installation of a wind power plant. The project does not involve switching from fossil fuels to renewable energy at the site of the project activity. The geographical and system boundaries for the electricity grid can be clearly identified and the information on the characteristics of the grid available. The project is in conformance with all applicability criteria of ACM 0002 version 10, and it is well described in the PDD.	OK	OK
B.3 Description of the sources and gases included in the project boundary					
B.3.1. Has the selected methodology been correctly applied with respect to the project boundary	VVM	67	Yes, The project's spatial boundaries are clearly defined in section B.3 of the PDD. The spatial extent of the proposed project boundary includes the proposed project power plant and all power plants connected physically to the North China Power Grid (NCPG) that the proposed project power plant is connected to. According to Bulletin Emission Factors for Regional Power Grids in China issued by China DNA on 30 December 2008. In this case, the connected electricity system is the Central China Power Grid which includes Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia and Shandong. Through document review, site visit and interview with the project participants, it has been validated that the identified project boundary and the selected sources and gases is justified. It could also be verified from the tables in Annex 3.	OK	OK
B.3.2 Does the project boundary include the physical delineation of the proposed CDM project activity? Please provide detailed documentation assessed(e.g., commissioning report) and any observation in physical site visit.	VVM	77/79	Yes. The project boundary includes the physical delineation of the proposed CDM project activity. The spatial extent of the proposed project boundary includes the proposed project power plant and all power plants connected physically to NCPG that the proposed project power plant is connected to. CO₂ is included in the baseline emission. CH₄ and N₂O are not included in the baseline emission. CO₂, CH₄, are all not included in the project emission. As a wind power project, there is no leakage. All above information has	OK	OK

			been validated to be in compliance with ACM 0002 version 10. The validation team checked that all the description of the project as contained in the PDD was identified through objective evidences such as the Feasibility Study Report, Grid connection agreement, the Environment Impact Assessment and the construction approval of this project activity as well as physical site inspection.		
B.3.3 Are all emission sources and gases related to the baseline scenario, project activity and leakage clearly identified, described and justified in a complete and transparent manner?	EB 41 VVM	Annex 12, 78/79	The project activity emission source for project activity shall be described in Table B.3 of the PDD according to ACM 0002 version 10.	CAR 2	OK
B.3.4 If the methodology allow the PPs to choose whether a source or gas is to be included within the project boundary. If so, Have the PPs justified that choice and is the justification provided reasonable	VVM	78	N/A	OK	Ok
B.3.5 Is there any greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed CDM project activity which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology(shall request clarification).	VVM	70/76 /79	No. For wind power projects only CO ₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.	OK	OK
B.3.6 Is a flow diagram of the project boundary, physically delineating the project activity presented based on the descriptions provided in section “A.4.3. Technology to be employed by the project activity”?	EB 41	Annex 12	Yes. A flow diagram of the project boundary is indicated in the PDD. The spatial extent of the project boundary includes project site. The project site includes total 66 sets of turbines with a unit capacity of 750kW. The Project is connected to the North China Power Grid (NCPG) and therefore the NCPG that all power plants connected to is selected as the project boundary. The wind power to be generated will be delivered to the Yujier step-up substation by 35kV transmission lines. The power in the 220kV Yujier step-up substation will be transmitted to the Balagong 220kV substation. Then the electricity generated will first be transmitted to the Inner Mongolia Power Grid and then to the North China Power Grid.	OK	OK

B.4 Description of how the baseline scenario is identified and description of the identified baseline scenario					
B.4.1 Has the approved baseline methodology been correctly applied to identify the most reasonable baseline scenario? Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	80/86 (e)	According to ACM 0002, the baseline scenario is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the calculation of Combined Margin. The baseline is represented by the combined margin of the grid the activity will be connected to.	OK	OK
B.4.2 Have any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	81	As methodology ACM 0002 prescribes the baseline scenario and no further analysis required, therefore, there is no need to take steps to identify the baseline scenarios. Refer section B.5 of this protocol.	OK	OK
B.4.3 Does the selected methodology require use of tools (such as “Tool for the demonstration of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario?	VVM	81	No.	OK	OK
B.4.4 If, yes, was the methodology consulted on the application of these tools ?(in such cases, the guidance in the methodology shall supersede the tool)	VVM	81	N/A	OK	OK
B.4.5 Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	82	No. Please refer to B.4.2	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

B.4.6 If, yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	82	N/A	OK	OK
B.4.7 Does PDD provide all the assumptions and data used by the project participants including reference and sources? And is all the documentation used for establishing the baseline scenario correctly quoted and interpreted in the PDD?	VVM	83/86 (a)(b)	Yes. All the assumptions and data used by the PP including reference and sources are provided in the PDD. And all the documentation is used for establishing the baseline scenario and correctly quoted and interpreted in the PDD	OK	OK
B.4.8 Are assumptions and data used in the identification of the baseline scenario justified appropriately, supported by evidence and can be deemed reasonable	VVM	86(c)	Yes. The assumptions and data used by the PP are listed in the PDD. It is justified appropriately and supported by evidence. And also it deems reasonable.	OK	OK
B.4.9 Was the information provided in the PDD cross checked with other credible and credible sources, such as local expert opinion, if available ?(identify the sources)	VVM	83	Yes. Cross-checked with national regulations and sectoral information that publically available such as “Notice from General Office of the PRC State Council on Strictly Prohibiting Constructing Fossil Fuel Power Units with the Capacity of 135MW or below”, “Renewable Energy Law of the People’s Republic of China”, “China’s 11th Five-Year Plan (2006-2010)” etc.	OK	OK
B.4.10 Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	84	Yes.	OK	OK
B.4.11 Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM EB	VVM	84/86 (d)	Yes.	OK	OK
B.4.12 Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	85	Yes. It is identified in the PDD B.4 that: the baseline scenario, according to methodology ACM0002, is the following: 1) The proposed project activity without CDM, i.e. the construction of a new wind generation plant with an installed capacity of 49.5 MW connected to the local grid, implemented without considering CDM revenues. 2) Continuation of the current situation, i.e. electricity will continue to be	OK	OK

			generated by the existing generation mix operating in the grid. 3) Construction of a thermal power plant with the same installed capacity or the same annual power output. 4) Construction of a power plant using another renewable energy resource with the same installed capacity or the same annual power output.		
B.5 Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):					
B.5.1 Is the evidence provided, that CDM has been considered seriously in the decision to proceed with the project activity? Does the proposed CDM project activity comply with the requirements of EB 41	EB 41 VVM	Para 68 96/101/102	As starting date of the project activity (5 September 2008) is after 2 August 2008, the validation team had assessed the evidence that the project participant(s) informs a China DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity according to the 'Guidance on the demonstration and assessment of prior consideration of the CDM, Version 01 (EB 41 meeting report, Annex 46). The validation team checked that the PP informed their intention to seek CDM status for the proposed project activity to the UNFCCC on 3 March 2009. And the PP has received UNFCCC's response of it on 5 March 2009. This notification was made within six months of the project activity start date (5 September 2008) and contained the precise geographical location and a brief description of the proposed project activity. Even though PP noticed their project to the UNFCCC Secretariat by e-mail, the validation team had assessed the evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. The consideration of CDM benefits prior to the starting date of the project activity has been found in the management meeting minute held on 2 September 2008. On 2 September 2008, the board of directors meeting regarding decision of CDM project applying was held. The board of directors were aware of CDM development in China at that time and it was decided to apply for CDM to implement the project as implementation of the project activity without CDM is expected poor financial return. These events are demonstrated through reviewing the meeting minute of the board directors which is described investment decision with CDM for the proposed project by project owner, Inner Mongolia Xinjin Wind Power Co., Ltd.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

			To proceed with the application, ERPA was signed with EcoSecurities International Limited on 21 January 2009. And the PP notified intention to seek CDM status to UNFCCC secretariat by e-mail on 3 March 2009 and received LoA of China on 16 June 2009 from China NDRC. After then DOE signed as KFQ in 29 June 2009. The validation team was able to verify all the relevant documents which demonstrate that benefit from CDM had been seriously considered before the starting of the project activity and the project's continuous development in the framework of the CDM. Thus KFQ confirmed that the CDM was seriously considered in the decision to the starting date of the project activity by the notification to UNFCCC secretariats.		
B.5.1.1 Is the start date of the project activity in accordance with the "Glossary of CDM terms"?	VVM	97	Yes. The starting date of the project has been validated by KFQ as 5 September 2008 which represents the date of the purchase agreement of equipments for wind generator units between PP and Xingiang Goldwind Science & Technology Co., Ltd. KFQ confirmed that this starting date is the earliest date at which either the implementation or construction or real action of a project activity according to CDM glossary (version 04).	OK	OK
B.5.1.2 Is it a new project activity(project activities with start date on or after 02 Aug 2008) or an existing project activity(project activities with a start date before 02 Aug 2008)?	VVM	98	The proposed project is a new project as the starting date of the project activity is after 02 August 2008. Please refer to B.5.1	OK	OK
B.5.1.3 For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the EB before the project activity start date, had the PP informed the Host party DNA and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status?	VVM	99	Please refer to B.5.1.	OK	OK
B.5.1.4 For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided?	VVM	100	N/A	OK	OK
B.5.1.4.1 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, including, inter	VVM	100	Please refer to B.5.1	OK	Ok

APPENDIX A. KFQ VALIDATION PROTOCOL

alia : Minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent , of the project participant, to undertake the project as a proposed CDM project activity?					
B.5.1.4.2 Reliable evidence from project participant that must indicate that continuing and real actions were taken to secure status for the project in parallel with its implementation including, inter alia : - Contract with consultants for CDM/PDD/methodology services - ERPA or other documentation related to the sale of the potential CERs - Evidence of agreements or negotiation with a DOE for validation service - Submission of a new methodology to the CDM EB - Publication in newspaper - Interview with DNA - Earlier correspondence on the project with the DNA or the UNFCCC secretariat	VVM	100	The project owner found that this project is not feasible due to financial difficulties. For this reason, PP decided to consider possible CDM benefits to cover financial difficulties at the Board of Directors Meeting on 2 September 2009. KFQ was able to verify that the incentive from CDM was seriously considered in the decision to proceed with the project activity. To proceed with the application, ERPA was signed with EcoSecurities International Limited on 21 January 2009. And the PP notified intention to seek CDM status to UNFCCC secretariat by e-mail on 3 March 2009 and received LoA of China on 16 June 2009 from China NDRC. After then DOE signed as KFQ in 29 June 2009 To confirm project activities and CDM continuation, Timeline in B.5.5 of the PDD should provide sufficient information for this project activity. Please refer the Guideline for completing the project design document (CDM-PDD) and following dates to show timeline and progress of the project activity. -EIA approval: 7 May 2008 -Construction approval: 10 September 2008 -Grid connection agreement: 24 December 2008 -Civil work construction contract: 15 September 2008 -Construction start: 15 September 2009 -Commercial operation -LoA of the host country: 16 June 2009, etc.	CL 2	OK
B.5.2 Does the PDD describe how a proposed CDM project activity is additional	VVM	93	As required by ACM0002 (Ver 10), additionality was assessed according to the ‘Tool for the demonstration and assessment of additionality’(ver 05.2).	OK	OK
B.5.3 Does the PDD state the latest version of the additionality tool being used	VVM	94	Yes. The approved “Tool for the Demonstration and Assessment of Additionality” version 05.2 is used. The validation team cross-checked the web site: http://cdm.unfccc.int/Reference/tools/index.html	OK	OK
B.5.4 Were the steps taken of the “tool for the demonstration and assessment of additionality” to assess additionality used	EB 41 VVM	Ann 45 95	Yes. Step 1-Identification of alternatives to the project activity consistent with current laws and regulations. Step 2-Investment analysis Step 3 -Barrier analysis was not used.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

			Step 4-Common practice analysis Thus the validation team confirmed it is in line with the requirements.		
B.5.5 Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	103	Yes. The baseline scenario was clearly identified in the PDD B.4 in accordance with the methodology ACM0002 that it is the following: electricity delivered to the grid (NCPG) 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.	OK	OK
B.5.6. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	103	N/A	OK	OK
B.5.7 Does the list of alternatives given in the PDD ensure that	VVM	104	Yes. The lists of four alternatives is given in the PDD.	OK	OK
B.5.7.1 Have realistic and credible alternatives been identified providing comparable outputs or services? (step 1a)	EB 41 VVM	Ann 45 104(b)	Alternative baseline scenarios are: (1) The proposed Project activity undertaken without being registered as a CDM project activity. (2) Continuation of the current situation. (3) Construction of a thermal power plant with the same installed capacity or the same annual power output. (4) Construction of a power plant using another renewable energy resource with the same installed capacity or the same annual power output. According to the China Electric Power Yearbooks (2003-2007), the installed capacity of other renewable energy technologies apart from wind and hydropower resources is 0 MW in Inner Mongolia Autonomous Region. And also the project site is located in a flat plain, and there is no potential for a hydroelectric facility or the same electricity generation as the proposed project. Moreover, the Project owner, Inner Mongolia Xinjin Wind Power Co., Ltd, has been licensed for wind power development and operation. Therefore, Alternative (4) is not feasible. Outcome of Step 1a are Alternative (1), (2) and (3).	OK	OK
B.5.7.2 Is the project activity without CDM included in these alternatives?(Step 1a)	EB 41 VVM	Ann 45 104(a)	Yes. The proposed project activity without CDM is included as one of alternative scenarios.	OK	OK

B.5.7.3 Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations? (step 1b)	EB 41 VVM	Ann 45 104(c))	According to the “Notice from General Office of the PRC State Council on Strictly Prohibiting Constructing Fossil Fuel Power Units with the Capacity of 135MW or below” (state council public notice [2002] No.6)” issued by China NDRC on 2 December 2005, a thermal power station with an installed capacity lower than 135MW is forbidden to build. Therefore, Alternative (3) is not feasible. The “Renewable Energy Law of the People’s Republic of China” (effected from 01 January 2006) is aimed to promote renewable energy in China. However, there are no direct incentives such as financial grants, higher tariffs, or subsidized loans available for those types of project. In addition, the agenda “China’s 11th Five-Year Plan (2006-2010)” is included energy efficiency and renewable energy, but there is no legislative requirement to meet the projections under this Plan. There are no laws compelling the project developer to develop wind power plants. Therefore Alternatives (1) and (2) identified are in line with the requirement.	OK	OK
B.5.7.4 In case the PDD argues that specific laws are not enforced in the country or region Is evidence available concerning that statement? (step 1b)	EB 41 VVM	Ann 45 104(c))	All the laws quoted in the PDD are enforced in this project: hence, this section is not applicable.	OK	OK
B.5.8 Is the list of alternatives complete	VVM	105	Yes. Please refer to B.5.7.1~B.5.7.4	OK	OK
B.5.9 Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity? (In case of applying step 2: investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)? which option is selected and why).	VVM	106	Yes. 3 analysis methods are provided according to the additionality tool. Because the proposed project generates economic benefits through the sales of electricity other than CDM revenue, therefore, the Option I (simple cost analysis) can’t be taken. Moreover, Option II (investment comparison analysis) can’t be adopted either as there are no similar investment project in alternatives identified. Thus, Option III (benchmark analysis) is the only applicable one to this project activity.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

B.5.10 If, yes, does the PDD provide evidence that the proposed project activity would not be - The most economically or financially attractive alternative Or - Economically or financially feasible, without the revenue from the sale of CERs	VVM	106	Yes. The proposed activity would be not economically or financially feasible, without the revenue from the sale of CERs. It is concluded based on the IRR calculation that 5.94% is less than the benchmark of 8%.	OK	OK
B.5.11 Was this shown by one of the following approaches - Demonstrate that the proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity; - The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative; - The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	107	Yes. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	OK	OK
B.5.12 Does the investment analysis comply with the latest version of the “Guidance on the Assessment of investment analysis” (Confirm whether the underlying assumptions are appropriate and the financial calculations are correct)	VVM	108, 112(a, c)	Yes. The latest version of the approved “Guidance on the Assessment of Investment Analysis (Version 03)” is used. The validation team cross-checked the web site: http://cdm.unfccc.int/EB/index.html	OK	OK
B.5.12.1 Is the period of assessment limited to the proposed crediting period of the CDM project activity	EB 41	Ann 45	No. The operational lifetime of the project is stated as 20 years from the FSR. As a result of reviewing the provided evidences, such as the FSR, it is longer than the crediting period of the proposed project.	OK	OK
B.5.12.2 Does the project IRR or Equity IRR calculations reflect the period of expected operation of the underlying project activity(technical lifetime), or if a shorter period is chosen – include the fair value of the project activity assets at the end of the assessment period?	EB 41	Ann 45	The proposed project is reflected 1 year for construction period and 20 years for operational period per the approved FSR. The fair value of the project activity assets is 5% which is in line with the relevant national tax regulation, Guo Shui Han [2005] 883 issued by the National Tax Bureau on 14 September 2005.	OK	OK

B.5.12.3 Is the most suitable financial indicator clearly identified (IRR, NPV, Cost benefit ratio, or (levelized) unit cost)?	EB 41	Ann 45	Yes. The IRR is the most suitable financial indicator. A benchmark analysis in which the Internal Rate of Return (IRR) of the project is calculated and compared to a benchmark stated in the 'Interim Rules on Economics Assessment of Electric Engineering Retrofit Project([2002] No.623), issued by the Operations Department of Power Generation and Power Transmission of the State Power Corporation of China. , This publication provides 8% IRR benchmark as a guideline for investment in the power sector.	OK	OK
B.5.12.4 Are Input values used valid and applicable at the time of the investment decision taken by the project participant.	EB 41 VVM	Ann 45	Yes, The input values used in the investment analysis are taken from the FSR. The FSR was developed by the Inner Mongolia Institute of Electricity Power Survey and Design and it was approved by the DRC of Inner Mongolia Autonomous Region on 23 July 2008 and has been used as the basis of the decision to proceed with the investment. Information in the FSR can thus be considered information provided by an independent and recognized source. The period of time between the approval of the FSR (23 July 2008) and the starting date of the proposed project (5 September2008) is only two months. Given this time period between approval of the FSR and the decision to proceed with the project activity it is unlikely in the context of the project that the input values would have materially changed and that it is thus reasonable to assume that the FSR has been the basis of the decision to proceed with the investment in the project. Furthermore, the audit team cross-checked the applied values when possible with actual contracts and compared them with KFQ's internal statistic results of the evaluation of wind power projects in China that are either already registered or currently under validation. Therefore, KFQ was able to confirm that the input values in the investment analysis are valid and applicable at the time of investment decision and they have been applied consistently.	OK	OK
B.5.12.5 In the case, the project participants rely on values form FSR that are approved by national authorities for proposed project activities (a) The FSR has 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	111	Yes. All the input value were identified and assessed through the FSR that was developed by the Inner Mongolia Institute of Electricity Power Survey and Design and it was approved by the DRC of Inner Mongolia Autonomous Region on 23 July 2008. The Board of Directors of the PP formally approved developing the project under the frame of the CDM on 2 September 2008. And the FSR has been used as the basis of the decision to proceed with the investment. The key parameters used for IRR calculation has been presented in Table B.5.3 of PDD. The spreadsheet and related documents have been verified by the validation team.	CAR 3 CL 3 CL 4	OK

(b) The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE should validate the appropriateness of the values; (c) On the basis of its specific local and sectoral expertise, confirmation is 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.		Since input parameters impact the IRR results, the actual figures quoted from other official documents issued by the 3rd organizations are used for double check. 1. Static total investment cost The validation team found inconsistency of investment cost in the FSR, PDD and IRR spread sheet, so CAR was raised as follow. Static total investment cost in PDD is not consistent with the value in the FSR and the spreadsheet. - FSR: 459.11 million RMB - PDD: 473.73 million RMB - Spreadsheet: 459.11 million RMB 2. Annual O&M cost: 7.617 million RMB (1.7% of the total investment cost, 0.075 RMB/kWh) Annual O&M cost is taken from the FSR. The O&M cost of this proposed project activity is 1.7% of the total investment cost and 0.075 RMB/kWh. This cost is consists of repair cost, salary & welfare, insurance fee, material cost and other cost. To check validity of O&M cost, the validation team reviewed it with other 28 similar projects in Inner Mongolia Autonomous Region and found that O&M cost for this proposed project activity is lower than the average O&M cost (2.2% of the total investment cost 0.088 RMB/kWh). Furthermore, the validation team cross-checked each item of O&M cost with similar projects such as repair cost, salary & welfare, insurance fee, material cost and other cost and found that all of them is within a range of other similar projects. • Repair cost (1~5 year: 0.8%, 6~15 year: 1.2% and 16~20 year: 1.6% of fixed assets) • Salary & welfare (15 staffs, annual salary: 40,000 RMB and welfare rate: 41%) • Insurance fee: 0.2% • Material cost: 8 RMB/kWh • Other cost: 8 RMB/kWh		
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			The validation team requested as follows, so CL was raised. The validation team request to provide salary book and number of staffs who will be worked for this project activity for checking validity of input values for O&M cost. 3. Electricity Tariff: 0.51 RMB/kWh (incl. V.A.T) The tariff is taken from the FSR which was approved by the DRC of Inner Mongolia Autonomous Region on 23 July 2008. The tariff in the FSR was estimated as fixed 0.51 RMB/kWh (incl.VAT) during the 20-year operational lifetime, which the third party design institute, the Inner Mongolia Institute of Electricity Power Survey and Design considered the government directive tariff guidelines. According to the tariff guidelines, ‘Notice on Feed in Tariff of Renewable Energy Project (Fa Gai Jia Ge[2007]3303)’ issued by NDRC on 3 December 2007 and ‘Approval of the Electricity Price of Renewable Energy Power Generation Projects in Some Provinces’ (Fa Gai Jia Ge [2007] 1260) issued by NDRC on 9 June 2007, the NDRC regulated the tariff of wind power projects in West Inner Mongolia at 0.51 RMB/kWh (incl. VAT) as the maximum tariff. Also these tariff guidelines state that the approved tariff applies for the first 30,000 operating hours and afterwards a lower tariff closer to the average grid tariff will be granted to the project. Thus this tariff, 0.51 RMB/kWh (incl. VAT) is in line with the government tariff guidelines which were valid at the time of the investment decision. The validation team checked the method to determine the tariff for wind power projects in China and found that the methods are Competitive tendering process and Government approved electricity tariff. The proposed activity falls under Government approved electricity tariff because the proposed project is connected to, and obtained permission to sell the generated electricity to, the West Inner Mongolia Power Grid. As the tariffs offered to wind power projects are set at the provincial level, only wind power projects connected in the province are considered in the following analysis of wind power project tariffs. Wind power projects from the two different regions within Inner Mongolia (West Inner Mongolia and East Inner Mongolia) fall under different tariff regimes because West Inner Mongolia Power Grid is connected to North China Power Grid while the East Inner Mongolia Power Grid is connected to Northeast China Power Grid. The tariff that NDRC has approved for wind		
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		projects is 0.51 RMB/kWh in West Inner Mongolia and 0.54 RMB/kWh in East Inner Mongolia. Since 2007, the government approved tariff has remained constant at 0.51 RMB/kWh (incl. VAT) and the new wind power projects in West Inner Mongolia has been set and is still 0.51 RMB/kWh (incl. VAT) as evidenced by the subsequent tariff notifications issued by the NDRC (Fa Gai Jia Ge [2008]1876 dated 23 July 2008 and Fa Gai Jia Ge [2009]1906 dated 20 July 2009). Moreover, the local DRC issued a approval on 28th October 2009 (Nei Fa Gai Jia Zi [2009] 2410), which mentioned the tariff for this specific project will be 0.51 RMB/kWh (incl. VAT). Finally, the validation team cross-checked and compared it with other similar 28 projects in Inner Mongolia Autonomous Region and found that the tariff of the proposed project, 0.51 RMB/kWh (incl. VAT) is slightly higher than the average tariff (0.5 RMB/kWh (incl. VAT)) of other similar projects. And for robust confirmation of the validity of those values, the validation team tested IRR changing applying the highest tariff (0.579 RMB/kWh) which is 14% higher than the tariff used for the project in West Inner Mongolia and found that IRR becomes 7.60% which is below the benchmark rate 8%. Thus KFQ concluded that the application of the tariff in FSR, 0.51 RMB/kWh (including VAT) is valid for the project at the time of investment decision. 4. Annual output: 101,689 MWh (Load factor: 23.5%) Annual output is taken from the FSR which was determined by the third party design institute, the Inner Mongolia Institute of Electricity Power Survey and Design. The validation team checked the design parameters of wind turbine manufactured by Xingiang Goldwind Science & Technology Co., Ltd. prescribed in the FSR and found that the annual operating hours, 2,054.3 hr/yr (Load factor: 23.5%) was designed based on 45 years of wind data (1962-2006) in the local area, internal use, transmission loss and other losses in line with the Notes on the issue of China Wind Power Generation reduction issued by NDRC on 2 June 2009 which are referred to the national standard, the Procedures for Developing Feasibility Study Report for Wind Farm Power Generation Projects (DL/T5067-1996), The Methods for Developing Pre-feasibility Study Report for Wind Farm Projects(NDRC Energy[2003] No.403), and The Methods for Developing Feasibility Study Report for Wind Farm Projects (NDRC Energy [2005] No.899).		
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			Even though the plant load factor is very different depending on the geological characteristics, the validation team cross-checked the electricity generation (plant load factor: 23.5%) with other similar wind power plants in Inner Mongolia Autonomous Region. It shows the range, 24.7%~30.8% and higher than the plant load factor for this project, 23.5%. Thus the validation team requested as follows, so CL was raised. Plant load factor of proposed project activity is 23.5% whereas 24.7%~30.8% for similar projects in Inner Mongolia province. Please provide specific reason of this difference. 5. TAX The validation team confirms that the tax rates for Income tax (25%), City maintenance and construction tax (5%), Educational surcharge tax (3%) and Value added tax (8.5%) are properly applied in accordance with China regulation and also Income tax (25%) is correctly calculated in accordance with EB 51 Annex 58, Guidelines on the assessment of investment analysis (version 03). Furthermore, those rates are compared with rates used in other wind power projects in Inner Mongolia Autonomous Region. 6. Residual Value: 5 % Residual value for this project activity is 5% which is from the FSR. The validation team checked it with Guo Shui Han [2005] 883 issued by the National Tax Bureau on 14 September 2005 that indicates residual value can be 5% of fixed asset and should be decided by project owner. Thus we can confirm that the residual value of this project activity is in accordance with the Regulation. 7. Operational lifetime: 20 years The 20 years operational lifetime from the FSR and validation team confirm that it is reasonable based on analysis of 28 similar projects (average 21 years, range from 20 to 25 years) and our sectoral knowledge. Thus we confirm that the lifetime applied is valid and appropriate for this proposed project activity. The validation team has checked all sources of the IRR calculation. Furthermore the calculation spreadsheet completed by PP and relevant documented evidence were cross-checked with the values in the PDD.		
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APPENDIX A. KFQ VALIDATION PROTOCOL

B.5.12.6 Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indication and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	109	Please refer to B.12.4.5	OK	OK
B.5.12.7 Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices;	VVM	109	Please refer to B.12.4.5	OK	OK
B.5.12.8 Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	109	The FSR provided has been reviewed by the validation team through physical site visit.	OK	OK
B.5.12.9 Was the correctness of computations carried out and documented by the project participants assessed	VVM	109	Yes. The correctness of computations carried out and documented by the project participants assessed.	OK	OK
B.5.12.10 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.	VVM	109	Yes. According to the guidance on the assessment of investment analysis (Annex 45), 4 parameters such as operating cost, investment cost, electricity tariff and annual operating hours were considered in the sensitivity analysis which constitutes more than 20% of either total project costs of total project revenues. And for the variation range, project owner didn't apply the variation range directly to the analysis. They approached whether variation of the parameters needed to reach the 8% benchmark are realistic or not. As a result, even using favorable assumptions the Best Case IRR is 5.94% which shows that project is not financially attractive. The validation team concluded this approach is valid. For assuring the PDD's explanation, the validation team checked the social and economy situation in China, the FSR relating to this analysis was crosschecked with other similar project's values. Finally validation team confirmed that the parameters were identified well and the sensitivity analysis is performed in a reasonable way.	OK	OK
B.5.12.11 Is any benchmark applied in the investment analysis suitable - Ensure that any risk premiums applied in determining the	VVM	110, 112(b)	The evaluation of the project's financial viability is based on the internal rate on return (IRR). The PP selected the benchmark rate, as 8% according to the 'Interim Rules on Economic Assessment of Electrical Engineering	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

benchmark reflect the risks associated with the project type or activity -Determine whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by, for example, assessing previous investment decisions by the project participants involved and determining whether the same benchmark has been applied or if there are verifiable circumstances that have led to a change in the benchmark.			retrofit projects' issued by the Operations Department of Power Generation and Power Transmission of the State Power Corporation of China 2002. The benchmark of 8% is therefore appropriate for this project. KFQ was able to confirm this is suitable and reasonable as followings: a) This benchmark, 8% is in line with the "Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects" determined by the national administration of this industry in China. The rule is widely applied in China for assessing the financial viability of such wind power projects. b) The validation team also checked any previous investment decision by the PP, Inner Mongolia Xinjin Wind Power Co., Ltd. involved and found that 2 wind farm projects (Inner Mongolia Hangjin Yihewusu Wind Power Project and Inner Mongolia Wujier Phase I Wind Power Project) applied 8% of benchmark rate. c) The benchmark rate, 8% is able to also be seen from other similar wind power projects in China, recently registered under CDM and all of them referring to this rule. Hence, the validation team concluded that selection of this benchmark is valid.		
B.5.13 Has barrier analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	113	N/A	OK	OK
B.5.14 Is this a large scale, first of its kind or small scale project activity?	VVM	117	N/A	OK	OK
B.5.15 If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality.	VVM	117	N/A	OK	OK
B.5.15.1 Is the geographical scope (e.g. the defined region) of the common practice analysis appropriate for the assessment of common practice related to the project activity's technology or industry type. (For certain technologies the relevant region for assessment will be local and for others it may be transnational/global)	VVM	118/119(a)	Yes. The project activity is located in Inner Mongolia Autonomous Region. Considering different policies regarding wind power projects among provinces, only the projects in Inner Mongolia Autonomous Region are chosen to compare.	OK	OK

B.5.15.2 Was a region other than the entire host country is chosen. If yes, was the explanation why this region is more appropriate assessed	VVM	118	Yes. Inner Mongolia Autonomous Region was chosen. In China, the regulatory framework and investment climate for wind farm projects are only similar and comparable in the same Province/Autonomous Region. Wind farm projects with total installed capacity less than 50MW are approved by the provincial DRC, and the projects' EIAs are approved by the provincial Environmental Protection Bureau.	OK	OK
B.5.15.3 Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region ?	VVM	118/ 119(b)	Yes. The higher investment of the proposed project leads to a poorer financial indicator and unsatisfied financial attractiveness: hence the project activity would not be implemented without the CDM component. For identification of similar activities, the additionality tool requires considering location, investment circumstance, scale, technologies, and financing condition. To comply with these requirements, the PDD applied conditions for identification of similar activities located in Inner Mongolia Autonomous Region and large scale projects with installed capacity over 15MW. However, it is not clearly justify that why 2 similar projects are selected and reasonable in the common practice analysis.	CL 5	OK
B.5.15.4 Are similar and operational projects, other than CDM project activities, already “widely observed and commonly carried out” in the defined region	VVM	118	Please refer to B.5.15.3	CL5	OK
B.5.15.5 If, yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities.	VVM	118/1 19(c)	Please refer to B.5.15.3	CL 5	OK
B.5.15.6 Is the proposed project activity not common	VVM	119(d)	The validation team confirmed the proposed project is not common practice based on above analysis by document review.	OK	OK
B.6 Emission Reductions					
B.6.1. Explanation of methodological choices					

B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	EB 41	Annex 12	Baseline emission is determined as per ACM 0002 version 10 and the Tool to calculate the emission factor for an electricity system (Ver. 02) under section B.6.1 of the PDD. The following steps are taken as per the Tool to calculate the emission factor for an electricity system to determine the baseline emission factor. - Step 1. Identify the relevant electric power system - Step 2. Choose whether to include off-grid power plants in the project electricity system - Step 3: Select an operating margin(OM) method - Step 4: Calculate the operating margin emission factor according to the selected method - Step 5: Identify the cohort of power units to be included in the build margin(BM) - Step 6: Calculate the build margin emission factor - Step 7: Calculate the combined margin emissions factor The ex-ante approach is chosen for the calculation of the emissions factor and will be fixed during the first crediting period. The value of grid emission factor in the PDD is appropriated assessed and correct.	OK	OK
B.6.1.2. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology	VVM	88, 91(d)	Yes. Tool to calculate the emission factor for an electricity system is required to be used by ACM0002.	OK	OK
B.6.1.3. Have the equations and parameters in the PDD been correctly applied with the respect those on the selected approved methodology?	VVM	89	The steps and equations applied are consistent with the Tool and ACM0002.	OK	OK
B.6.1.4. Does the methodology provide for selection between different options for equations or parameters	VVM	89	The justification of choosing the simple OM and option 1 for BM calculation has been clearly demonstrated in PDD. All the data are referring to the latest available Chinese Electric Power Yearbook (2005~2007), the China Energy Statistical Yearbook (2005~2007) and IPCC 2006 default values.	OK	OK
B.6.1.5. If, yes, has adequate justification been provided(based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	89	Yes, the choices of options to determine the Emission Factor are fully justified in the PDD. For the calculation of the operating margin (OM) the simple OM emission factor calculation method is selected due to a lack of availability. Following EB guidance, the average emission factor for the grid for each fuel type is	OK	OK

			calculated based on a 3-year average of the most recent statistics available. The simple OM emission factor is calculated as 1.0069 t CO₂/MWh. For the calculation of the build margin (BM), the coal consumption efficiency of 98.63% for coal-fired power and 1.3% for gas-fired and 0.07 of oil-fired power which are defined as the best technology commercially available in China. The capacity additions of 32.98% from the years 2004 to 2006 have been identified by applying weights estimated using installed capacity instead of annual electricity generation. The BM is calculated as 0.7802 t CO₂/MWh. The combined margin of 0.9502 t CO₂/MWh is fixed ex-ante for the entire first crediting period. The IPCC default value of 38.1 t C/TJ (coal), 49.99 t C/TJ (gas and oil) and the carbon oxidization factor of 100% are used to calculate the OM and BM. In summary, the GHG calculations are in a complete and transparent manner. The default weights for wind power projects in the methodological tool version 01.1 (OM:0.75 and BM 0.25 respectively) are used. Thus combined margin (CM) is calculated as 0.9502 t CO₂/MWh. No leakage is considered according to the methodology. Therefore the formulae in the PDD are clearly presented of the determination of the emission reduction. As the project emission and leakage are both zero, the emission reduction is equal to the baseline emission.		
B.6.1.6. If, yes, have correct equations and parameters been used, in accordance the methodology selected?	VVM	89	Yes. The formulae to calculate the baseline emissions are correctly presented. They are in compliance with the ones in the defined methodology ACM0002 version 10.	OK	OK
B.6.1.7. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	90	Not applicable as the emission factor is determined ex ante for the project activity.	OK	OK
B.6.1.8. If, no, and these data and parameters will remain fixed through the crediting period, are all data sources and assumptions - appropriate and correct? - applicable to the proposed CDM project activity? - resulting in a conservative estimate of the emission reductions?	VVM	90	Yes. Data is issued by China's DNA. Therefore all data is applicable and - resulting in a conservative estimate of the emission reductions.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

B.6.1.9 Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	90	N/A	OK	OK
B.6.10 If yes, are the estimated provided in the PDD for these data and parameters reasonable?	VVM	90	N/A	OK	OK
B.6.2. Data and parameters that are available at validation					
B.6.2.1. Is the list of data and parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied Methodology?	EB 41	Annex 12	Yes. A list of parameters is presented according to ACM0002.	OK	OK
B.6.2.2. Is the choice of ex-ante or ex-post vintage clearly specified in the PDD?	EB 41	Annex 12	For the calculation of the emission reductions, the ex-ante approach is chosen which is clearly stated in B.6.3 of PDD.	OK	OK
B.6.2.3 Are all data and parameters included properly. - Title in line with methodology? - Data unit correctly expressed? - Appropriate description? - Source clearly referenced? - Correct and/or reasonable value provided? - Has this value been verified? - Choice of data correctly justified? - Measurement method correctly described?	EB 41 VVM	Annex 12 91(a), (b).(c), 92	Yes. All listed parameters are properly described.	OK	OK
B.6.2.4 Can all estimates of the baseline emissions can be replicated using the data and parameters valued provided in the PDD	VVM	91(e)	Yes. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.	OK	OK
B.6.3. Ex-ante calculation of emission reductions					

B.6.3.1. Is the projection based on the same procedures as used for future monitoring?	EB 41	Annex 12	Yes, the ex-ante approach is adopted for calculation of the emissions grid factor and will not be changed during first crediting period. Therefore, the net electricity fed to the grid will be the key parameter to determine the annual baseline emission, namely, the annual projection.	OK	OK
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	EB 41	Annex 12	According to the ACM0002 version 10, leakage is not considered in calculation of emission reduction but, leakage of the project activity is described in the section B.6.3 of the PDD.	CAR 4	OK
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	-	-	The emission factor of the defined grid and annual emission reductions are consistent with the figures in other chapters of the PDD.	OK	OK
B.6.4. Summary of the ex-ante estimation of emission reductions					
B.6.4.1. Will the project results in fewer GHG emissions than the baseline scenario?	-	-	Yes. Being a wind power, no emissions will result due to the project activity under normal circumstances The amount of estimated emission reduction by this project activity is 107,267 ton CO ₂ /yr.	OK	OK
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	EB 41	Annex 12	Yes, the table is complete. It includes the emission due to the project activity, baseline emission, leakage emissions and the overall emission reductions. .	OK	OK
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	EB 41	Annex 12	Yes. The Validation team found that construction process is going on schedule. The lifetime of the project is expected to be 20 years and the renewable crediting period of max 7 years with potential for 2 renewals is chosen. Thus, projection of emission reduction for 7 years is in line with the project's time schedule and crediting period. The emission reductions for each year and total emission reductions are indicated in the Table of B.6.4 of the PDD.	OK	OK
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	-	-	Yes. The data is consistent throughout the whole PDD.	OK	OK
B.7. Application of the monitoring methodology and description of the monitoring plan					

B.7.1. Data and parameters monitored					
B.7.1.1. Is the list of parameters presented by chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	VVM	120	Because the ex-ante approach for the calculation of the emissions factor is implemented, the net electricity fed into the grid is the key parameters required to be monitored. This parameter has been included in table B.7.1 in the PDD.	OK	OK
B.7.1.2 Are all necessary parameters included properly? - Title in line with methodology? - Data unit correctly expressed? - Appropriate description of parameter? - Source clearly referenced? - Correct value provided for estimation? - Has this value been verified? - Measurement method correctly described? - Correct reference to standards? - Indication of accuracy provided? - QA/QC procedures described? - QA/QC procedures appropriate?	VVM	121(a)	Yes, all parameters are included. And the net electricity (EG_{facility}) will measure electricity generation continuously and record monthly. And EG_{facility} will be used in the emission reduction calculations and will be crosschecked with the sales receipt for the power supplied to the grid in compliance with the methodology. Data will be kept for 2 years after the end of the crediting period.	OK	OK
B.7.2. Description of the monitoring plan					
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	VVM	121(b)/122(b)	Yes. Table 4.2 in Annex 4 gives a clear operational procedures and responsibilities for monitoring and quality assurance of project is described. As this project is under construction, PP has a plan to develop detailed monitoring plan will be set before project start and validation team identified PP's future plan of it.	OK	OK
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	VVM	121(b)/122(b)	Yes. According to the PDD, the annual output from the power plant will be monitored and recorded. Electricity sales invoices will also be obtained as an additional check. And roles and responsibilities will be defined for the relevant staff involved in CDM monitoring.	OK	OK
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	VVM	121(b)/122(b)	Yes. Followings will be included in a monitoring plan: - CDM staff training - CDM data and record keeping arrangements - Data collection - CDM data quality control and quality assurance	CL 6	OK

			- Internal audits - Equipment failure - Equipment calibration The electricity meter measuring power output to the grid will be calibrated in line with the relevant national standard. However, it is recommended to include further information as bellow. The PP should clearly define how to monitor the net electricity ($EG_{\text{facility, y}}$) calculation for the emission reduction in B.7 of the PDD as the revenue meter of the proposed project is shared with other wind power projects.		
B.7.2.4 Does the monitoring plan comply with the requirement of the methodology	VVM	122(a)	Yes. The monitoring plans comply with the requirement of ACM 002 version 10.	OK	OK
B.7.2.5. Does project participant has ability to implement the monitoring plan?	VVM	121(b)/122(c)	The PP has already experienced in much wind power projects and also has a plan to develop the operational manual of the project activity including the monitoring plan.	OK	OK
B.7.2.6. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	VVM	121(b)	Yes, there is additional information provided in annex 4 for further details of the monitoring plan.	OK	OK
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)					
B.8.1. Is there any indication of a date when the baseline was determined?	EB 41	Annex 12	Yes. The baseline of the project was determined on 6 June 2009.	OK	OK
B.8.2. Is this consistent with the time line of the PDD history?	-	-	Yes, The first version of PDD was completed on 6 June 2009 which is also used for GSP and on site assessment.	OK	OK
B.8.3. Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	EB 41	Annex 12	Yes, The responsible person indicated in PDD are also the ones being interviewed for baseline verification during the on site assessment.	OK	OK

B.8.4. Is information provided whether this person/entity is also considered a project participant?	EB 41	Annex 12	Yes. The above mentioned person is from project participant's company.	OK	OK
C. Duration of the Project/ Crediting Period					
C.1 Are the project's starting date and operational life time clearly defined and evidenced?	EB 41	Annex 12	Yes. The starting date of the project has been validated by KFQ as 5 September 2008 which represents the date of the purchase agreement of equipments for wind generator units between PP and Xingiang Goldwind Science & Technology Co., Ltd. The operational lifetime is expected to be 20 years. The validation team checked this operation lifetime in the FSR.	OK	OK
C.2. Choice of the crediting period and related information					
C.2.1. Is the assumed crediting period clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max.10 years)?	EB 41	Annex 12	Yes. 7 years with potential for 2 renewals is chosen as the crediting period. The life time of the project is stated as 20 years. As a result of reviewing the provided evidences, such as PDR, the maximum 7 years with potential 2 renewable is considered reasonable and it is clearly defined in the PDD.	OK	OK
C.2.2 Is the start of the crediting period clearly defined and reasonable?	EB 41	Annex 12	Yes. Starting date of crediting period will start 1 June 2010 or on the date of registration of the project activity whichever is later.	OK	OK
D. Environmental Impacts					
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts					
D.1.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	EB 41	Annex 12	Yes, the environmental impacts of the project activity such as noise, solid waste, electromagnetic impact, wastewater and sewage, dust and air quality and ecological impact have been clearly described in the EIA and these are fully presented in the PDD.	OK	OK
D.1.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	EB 41	Annex 12	Yes, EIA is a mandatory in P. R. China for installation of a new wind-power plant. The EIA was approved by the Inner Mongolia Environmental Protection Bureau in 7 May 2008. All the documents have been reviewed by DOE.	OK	OK

D.1.3 Will the project create any adverse environmental effects?	EB 41	Annex 12	It could be checked by document review onsite that the impacts assessed in the EIA dealt with noise, solid waste, electromagnetic impact, wastewater and sewage, dust and air quality and ecological impact. Referred to the EIA and the approval of EIA, the project will create no significant environmental impacts.	OK	OK
D.1.4 Are transboundary environmental impacts considered in the analysis?	PDD D.1	DR, I	The proposed wind power plant is located within China, and it has no transboundary environmental impacts: hence this section is not applicable.	OK	OK
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Part					
D.2.1 Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity ? who undertaken the analysis	VVM	129/130/131	Referring to the EIA and the approved document, the impacts on the environment are not significant. Please refer D.1 of protocol.	OK	OK
D.2.2 Does the project comply with environmental legislation in the host country and approved ?	VVM	130/131	Yes, the project is in conformity with the environmental legislation of P. R. China and the EIA has been approved by authorized organization.	OK	OK
E. Stakeholder Comments					
E.1. Brief description how comments by local stakeholders have been invited and compiled					
E.1.1 Have relevant stakeholders been consulted adequately prior to the publication of the PDD on the UNFCCC website ?	VVM	126/127(a)/128(b)	Yes. The stakeholder consultation for the project activity took place from May 2009. Also the project owner had distributed questionnaires to the 31 local residents who may be impacted by the project to collect advice for the project. A sample of the local stakeholder questionnaire was made available to the validator Furthermore, please describe composition of stakeholders who were involved in consultation process to show that this consultation process covers relevant stakeholders.	CL 7	OK
E.1.2 Have appropriate media been used to invite comments by local stakeholders?	EB 41	Annex 12	Yes. All of the investigated stakeholders agree with the project construction. Therefore there has been not necessary to modify the plans due to comments received. Please kindly refer E.1.1 of protocol.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

E.1.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	EB 41	Annex 12	There are no regulations/laws in China for carrying out the stakeholder consultation process for this project activity.	OK	OK
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	VVM	127(c)	Yes. But see E.1.1	OK	OK
E.2. Summary of the comments received					
E.2.1 Is a summary of the stakeholder comments received provided and is the stakeholders commented identified?	VVM	127(b)	Yes. Kindly refer E.1.1 of this protocol.	OK	OK
E.2.2 Has due account been taken of any stakeholder comments received?	VVM	127(c)	Yes. Comments were generally positive to project activity For our confirmation, validation team interviewed with 4 representatives of local stakeholders. Then, we conclude that local stakeholders are supporting this project activity and they do not have any negative opinion for the project as well.	OK	OK
F. Annexes 1-4					
Annex 1: Contact Information					
F.1.1 Is the information provided consistent with the one given under section A.3?	EB 41	Annex 12	Yes. The project participants list comprised in both cases Inner Mogolia Xingjin Wind Power Co., Ltd. and EcoSecurities International Limited.	OK	OK
F.1.2 Is the information on all private participants and directly involved Parties presented?	EB 41	Annex 12	Yes. The PDD-Annex 1 clearly mentions this information.	OK	OK
Annex 2: Information regarding public funding					
F.1.3 Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	EB 41	Annex 12	It is stated that the project does not receive any public funding from Annex I countries.	OK	OK

APPENDIX A. KFQ VALIDATION PROTOCOL

F.1.4. If necessary: Is an affirmation available that any such funding from Annex – countries does not result in a diversion of ODA?	EB 41	Annex 12	NA	OK	OK
Annex 3: Baseline information					
F.1.5. If additional background information on baseline data is provided: Is this information consistent with data presented by other section of the PDD?	EB 41	Annex 12	Yes. Please kindly refer to B.5 of protocol. All the data used for baseline calculation are consistent throughout the PDD.	OK	OK
F.1.6. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	EB 41	Annex 12	Pls. see B.5 of protocol.	OK	OK
F.1.7. Does the additional information substantiate/support statements given in other section of the PDD?	EB 41	Annex 12	Annex 3 presents all the data used for the emission factor calculation and gives evidence how the values published by the NDRC are adopted in this case.	OK	OK
Annex 4: Monitoring information					
F.1.8. If additional background information on monitoring is provided: Is this information consistent with data presented in other section of the PDD?	EB 41	Annex 12	The detailed CDM monitoring system procedures is presented in Annex 4. It is supplementary to PDD chapter B.7.2.	OK	OK
F.1.9. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	EB 41	Annex 12	As the site is still being constructed the setting of monitoring system has not been completed. The monitoring procedures will be identified prior to the start of the project and staff involved in the CDM project monitoring will receive relevant training.	OK	OK
F.1.10. Do the additional information and/or documented procedures substantiate/support statements given in other section of the PDD?	EB 41	Annex 12	Please see F.1.8 of protocol.	OK	OK

Table 3. Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2	Summary of project owner response and validation team	Validation team conclusion
CAR 1: Please deliver the LoA issued by Annex-I country to the DOE	A.3.3, A.3.4 A.3.5 A.3.8	Approval letter of UK DNA (30 November 2009) and MoC (30 June 2009) have been submitted to DOE by PP. This LoA is issued by UK DNA, Department of Energy & Climate Change. The validation team confirmed followings. - Title of project activity is correctly indicated in the LoA. - UK has ratified the Kyoto Protocol on 31 May 2002. - Voluntary participant. The validation team checked the e-mail address to send the LoA of UK to the project participant and confirmed that LoA of UK was informed from UK DNA to the PP on 30 November 2009 by e-mail. Thus the validation team confirmed that LoA of UK provided from the PP is not doubt its authenticity.	CAR 1 is closed.
CAR 2 : Project activity emission source for project activity shall be described in Table B.3 of the PDD according to ACM 0002 version 10.	B.3.3	In the PDD, CO₂ is included in the baseline emissions, CH₄ and N₂O are not included in the baseline emission. CO₂, CH₄ and N₂O are all not included in the project emission. As a wind power project, there is no leakage. All above information has been validated to be in compliance with ACM 0002 Version 10. The project may import electricity from the grid within the project boundary which will be measured and it is in accordance with the methodology. And net electricity supplied to the grid will be used for CERs calculation. Thus the validation team confirmed that the emission sources included in or excluded from the project boundary is correctly indicated in the PDD according to the methodology.	CAR 2 is closed.
CAR 3 Total static investment cost in PDD is not consistent with the value in the FSR and the spreadsheet. - FSR: 459.11 million RMB - PDD: 473.73 million RMB	B.12.4.5	The project participant has corrected the static total investment cost as 459.11 million RMB. And the validation team confirmed 473.73 million RMB in the GSP PDD is the dynamic investment cost. Static total investment cost is taken from the FSR. The validation team compared the proposed project activity with other 28 similar wind power projects in Inner Mongolia Autonomous Region to check the validity of total investment cost. The unit investment cost (9,275 RMB/kW) for the proposed project activity is lower than	CAR 3 is closed.

- Spreadsheet: 459.11 million RMB		the average unit investment cost of other similar projects which is 9,757 RMB/kW (7,809~11,719 RMB/kW), hence, the unit investment cost is deemed to be reasonable by KFQ. Furthermore, the validation team reviewed actual expenditure for this project activity such as civil work, equipment purchase of turbine & generators, towers and box transformers etc which shown that approximately 400.7 million RMB (87.3%) was already incurred by the time of validation. And we were also able to check that approximately 458.8 million RMB (99.9%) of total investment cost was expensed to the start of December 2009 through reviewing the investment summary document of Yihewusu Phase II project on 15 December 2009 provided by the PP. Based on the above assessment, KFQ can conclude that the static total investment cost in financial analysis is not overestimated and valid to apply at the time of the investment decision.	
CAR 4: According to the ACM0002 version 10, leakage is not considered in calculation of emission reduction but, leakage of the project activity is described in the section B.6.3 of the PDD.	B.6.3.2	The PP corrected that GHG emission reduction formula in B.6.3 of the PDD is considered No leakage according to ACM0002 version 10. As the project emission and leakage are both zero, the emission reduction is equal to the baseline emission. And the calculation processes are completely demonstrated and consistent with the ones of Annex 3. Thus we confirmed that it is correct.	CAR 4 is closed.
CL 1: Some of technical parameters of wind turbine in PDD are based on the data in the FSR. However it is recommend using real technical parameters according to the technical specification provided by equipment manufacture. -Turbine specification in the PDD Type: WTG750 Rated speed(m/s): 14 Hub height(m): 65 -Specification of turbines in the equipment purchase contract. Type: S50/750 Rated speed(m/s): 14~15	A.4.3.4	The PP revised the turbine's specification in PDD A4.3 table 2 according to the equipment purchase contract as S50/750. The validation team cross-checked the information in the PDD with contract documents and confirmed that described information in the PDD is correct.	CL 1 is closed.

Hub height(m): 60																											
CL 2: Timeline in B.5.5 of the PDD should provide sufficient information for this project activity. Please refer the Guideline for completing the project design document (CDM-PDD) and following dates to show timeline and progress of the project activity. -EIA approval: 7 May 2008 -Construction approval: 10 September 2008 -Civil work construction contract -Construction start: 15 September 2008 -Grid connection agreement: 24 December 2008 -Commercial operation -Applying for LoA from the host country, etc.	B.5.1.4.2	The FSR was approved on 23 July 2008 and it concluded that the project is financially unattractive. To overcome the financial unattractiveness of the project, the Board of Directors formally approved developing the project under the frame of the CDM on 2 September 2008. The project owner at the time was aware of CDM development in China and it was decided to apply for CDM to implement the Project as implementation of the project activity without CDM is expected poor financial return. To proceed with the application, ERPA was signed with EcoSecurities International Limited on 21 January 2009. And the PP notified intention to seek CDM status to UNFCCC secretariat by e-mail on 3 March 2009 and received LoA of China on 16 June 2009 from China NDRC. After then DOE signed as KFQ in 29 June 2009. Thus KFQ confirmed that the PP demonstrated the project's continuous development in the framework of the CDM. <table><tr><th>Time</th><th>Events</th><th>Activity</th></tr><tr><td>07/05/2008</td><td>EIA approval</td><td>Approved by Inner Mongolia Environmental Protection Bureau</td></tr><tr><td>06/2008</td><td>Feasibility Study Report</td><td>Completed by the Inner Mongolia Institute of Electricity Power Survey and Design</td></tr><tr><td>06/2008</td><td>CDM consideration in FSR</td><td>the Inner Mongolia Institute of Electricity Power Survey and Design</td></tr><tr><td>03/07/2008</td><td>Approval of Feasibility Study Report</td><td>Development & Reform Commission of Inner Mongolia Autonomous Region</td></tr><tr><td>02/09/2008</td><td>Consideration of CDM</td><td>Decided the investment by Board Resolution of the Project Developer</td></tr><tr><td>05/09/2008</td><td>Purchase Agreement of Equipment (start of the project activity)</td><td>Contracted for Purchase Agreement of Wind Turbines</td></tr><tr><td>10/09/2008</td><td>Construction Approval</td><td>Construction Approval for the Project from the State Grid Xinyuan Co., Ltd.</td></tr></table>	Time	Events	Activity	07/05/2008	EIA approval	Approved by Inner Mongolia Environmental Protection Bureau	06/2008	Feasibility Study Report	Completed by the Inner Mongolia Institute of Electricity Power Survey and Design	06/2008	CDM consideration in FSR	the Inner Mongolia Institute of Electricity Power Survey and Design	03/07/2008	Approval of Feasibility Study Report	Development & Reform Commission of Inner Mongolia Autonomous Region	02/09/2008	Consideration of CDM	Decided the investment by Board Resolution of the Project Developer	05/09/2008	Purchase Agreement of Equipment (start of the project activity)	Contracted for Purchase Agreement of Wind Turbines	10/09/2008	Construction Approval	Construction Approval for the Project from the State Grid Xinyuan Co., Ltd.	CL 2 is closed.
Time	Events	Activity																									
07/05/2008	EIA approval	Approved by Inner Mongolia Environmental Protection Bureau																									
06/2008	Feasibility Study Report	Completed by the Inner Mongolia Institute of Electricity Power Survey and Design																									
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10/09/2008	Construction Approval	Construction Approval for the Project from the State Grid Xinyuan Co., Ltd.																									

		15/09/2008	Civil work construction contract	Contracted with the State Grid Xinyuan Construction Co.,Ltd.	
		15/09/2008	Construction start date	Construction company: State Grid Xinyuan Construction Co.,Ltd	
		21/01/2009	ERPA signature	Made ERPA with EcoSecurities International Ltd.	
		03/03/2009	Notification	Notification of intention to seek CDM status sent to UNFCCC secretariat	
		16/06/2009	China's LoA approval	Issued by DRC of Inner Mongolia Autonomous Region.	
		25/06/2009	Commercial operation Start	The project site started commercial operation.	
CL 3: Please provide salary book and number of staffs who will be worked for this project activity for checking validity of input values for O&M cost.	B.12.4.5	Annual O&M cost is 7.617 million RMB (1.7% of the total investment cost, 0.075 RMB/kWh). Annual O&M cost is taken from the FSR. The O&M cost of this proposed project activity is 1.7% of the total investment cost and 0.075 RMB/kWh. This cost is consists of repair cost, salary & welfare, insurance fee, material cost and other cost. To check validity of O&M cost, the validation team reviewed it with other 28 similar projects in Inner Mongolia Autonomous Region and found that O&M cost for this proposed project activity is lower than the average O&M cost (2.2% of the total investment cost 0.088 RMB/kWh). Furthermore, the validation team cross-checked each item of O&M cost with similar projects such as repair cost, salary & welfare, insurance fee, material cost and other cost and found that all of them is within a range of other similar projects. Especially KFQ examined salary & welfare level of the PP and found that the monthly salary & welfare of the PP's company is approximately 138.9% (97,905 RMB/month) which is higher than the budget of the FSR (70,500 RMB/month). Through our comprehensive and thorough analysis, the validation team conclude the applied value is not overestimated and is valid.			CL 3 is closed.
CL4 Load factor of proposed project activity is 23.5% whereas 24.7%~30.8% for similar projects in Inner Mongolia	B.5.12. 5	Annual output is taken from the FSR which was determined by the third party design institute, the Inner Mongolia Institute of Electricity Power Survey and Design. The validation team checked the design parameters of wind turbine manufactured by Xingiang Goldwind Science & Technology Co., Ltd. prescribed in the FSR and found that			CL 4 is closed.

province. Please provide specific reason of this difference.	the annual operating hours, 2,054.3 hr/yr (Load factor: 23.5%) was designed based on 45 years of wind data (1962-2006) in the local area, internal use, transmission loss and other losses in line with the Notes on the issue of China Wind Power Generation reduction issued by NDRC on 2 June 2009 which are referred to the national standard, the Procedures for Developing Feasibility Study Report for Wind Farm Power Generation Projects (DL/T5067-1996), The Methods for Developing Pre-feasibility Study Report for Wind Farm Projects(NDRC Energy[2003] No.403), and The Methods for Developing Feasibility Study Report for Wind Farm Projects (NDRC Energy [2005] No.899). Even though the plant load factor is very different depending on the wind resource, the validation team cross-checked the electricity generation (plant load factor: 23.5%) with other similar wind power plants in Inner Mongolia Autonomous Region. It shows the range, 24.7%~30.8% and higher than the proposed project, 23.5%. Thus the validation team investigated the reason of relatively lower plant load factor of the proposed project and found that the selection of the option of 750kW turbine considering the supplying capacity of the manufacture in the FSR and the arrangement of wind farm construction of the project developer result in the low plant load factor. In other word, the proposed project is scheduled by the project to start construction just three month after the FSR, at that time, the 1,500kW wind turbine is not available for the project owner from the supplier (Xingjiang Goldwind Science & Technology Co., Ltd). Therefore the only alternative left for the project owner is 750KW wind turbine which has also been identified in the FSR. The project owner was already aware that the plant load factor of 750kW wind turbine is lower than the larger wind turbines at the time of investment decision (the board meeting, 2 September 2008). Further more, KFQ tested IRR of the other alternative used 1500kW turbines (which will increase the load factor) through relevant evidences related to the quantitative analysis provided by the PP and found that the load factor will be 21.5% higher up to 28.62%, but total investment will also increase by at least 22% to 558,980,000 RMB, the overall effect is that the project IRR will decrease to 5.57%, which is less than the original IRR when 750 kW turbines are used. Thus the validation team concluded that the choice of 750kW by the PP at the time of the investment decision is reasonable considering the circumstance of turbine supply from the manufacturer and the investment increment caused by high price and relevant installation costs of 1500kW turbines. The plant load factor has been defined in accordance with EB 48 Annex 11 “Guidelines for the reporting and validation of plant load factors (Version 01)” as it was determined by a third party contracted by the project participants. Therefore the validation team can conclude that estimated plant load factor and operating hour is reliable
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		source to calculate electricity generation by proposed project activity. Also no significant changes will occur on this parameter during the project operational lifetime. KFQ, therefore, concludes that the power supplied to the grid has been appropriately worked out to be supplied 101,689 MWh to the grid.	
CL 5 : Please clearly justify that why 2 similar projects are selected and reasonable in the common practice analysis.	B.5.15.3~5	The project owner applied three conditions for identification of similar activities: 1) located in Inner Mongolia Autonomous Region, 2) construction started in and after 2003, and 3) with installed capacity from 25MW to 75MW, which are considered appropriate. The project owner applied three conditions for identification of similar activities: 1) located in Inner Mongolia Autonomous Region, 2) construction started in and after 2003, and 3) with installed capacity from 25MW to 75MW, which are considered appropriate. One of the projects listed in the GSP PDD was Huitengxile. This project started operation in 1997 and was hence not included in the final PDD because it started operation before 2003. 1. Projects located in Inner Mongolia Autonomous Region The common practice analysis has been performed considering the Inner Mongolia Autonomous Region as the relevant geographical extension. The PPs defined the relevant common practice extension on the basis of differences (investment conditions, natural conditions, government policies etc.) among provinces. General conditions for investment differ province by province, as each province has their own policy on renewable power project investments. And the physical condition of a project site is determined largely by the wind velocity condition, which is affected by weather and geographical conditions which vary province by province. Therefore confirm that the relevant parameters as location, infrastructure, economical situation and development have been taken into account in order to define the region to be used for the common practice. 2. Projects started in and after 2003 Before 2003, wind power projects in China were undertaken under non-commercial conditions with supporting policies such as higher tariffs, domestic loan subsidies, bilateral soft loan financing and multilateral finance, therefore most wind projects were built as monopolistic power company 'pilot-projects' which each wind farm is less than 30MW and still could not be commercialized. After 2003, NDRC changed the regulations which required the wind projects are developed on a commercial basis, through a bidding process. As such, investment circumstances for wind power projects were fundamentally changed after 2003, it is considered appropriate to include only wind power projects of which construction started in and after 2003.	CL 5 is closed.

		3. Projects with installed capacity from 25MW to 75MW In China, there is no official standard to classify wind power project by scale, therefore the project owner decided the classification range, $\pm 50\%$ which is used as the boundary to choose similar project. This classification range is accepted by the EB for other similar registered projects in China. According to this classification, other wind power projects are listed based on the data source, the “Statistics of Installed capacity of wind farm in China, 2007” by Mr. Shi Pengfei, vice chairman of Chinese Wind Association. The statistic is the latest version and listed all wind farm projects with locations, installed capacity, commissioned date, manufacturers etc. in China including non-CDM projects. This data source is widely applied for the common practice analysis in the wind power projects in China. Hence comparable scale can be considered appropriate for the common practice analysis. The selected one similar wind power project (Dali phase III) was analyzed with the investment circumstance. The similar project identified show better investment circumstance than the proposed project. Dali phase III (30MW) wind project was started operating after 2003 without CDM support and was a Demonstration Project supported by national debt fund with lower interest rate, 2.5%. And this national debt fund is no longer supporting in Inner Mongolia Autonomous Region and the proposed project does not benefit from such support. The validation team reviewed relevant document references to explain above circumstance and confirmed that the proposed CDM project activity is not common practice based on the comparison of the parameters such as investment circumstance.	
CL 6 : The PP should clearly define how to monitor the net electricity (EG facility, y) calculation for the emission reduction in B.7 of the PDD as the revenue meter of the proposed project is shared with other wind power projects.	B.7.2.3	The project will share the transmission line to the substation for electricity delivery to the Grid with the Yihewusu phase I and the Wujier station wind farms both of which belong to the same project owner of the proposed project and both are applied as CDM projects. The revenue meter (M1) measures the total power supplied to the Grid by all three projects connected to it, meters M2 measures the electricity exported and imported from the Wujier station and M3 measures that from the two Yihewusu stations. Power exported and imported by the specific Yihewusu stations are measured by the meters M4 and M5. As the distance between M4 and M5 with M3 are the same the transmission losses between these meters are also the same, this also applies to M2 and M3, both of which are the same distance away from M1. All the power meters involved in the project monitoring are bidirectional and will be calibrated in line with the relevant national standard and with accuracy within $\pm 0.5\%$. The line diagram is clearly indicated in the PDD.	CL 6 is closed.

		Therefore, the net power supply of this project activity ($EG_{\text{facility},y}$) will be obtained by two steps. Step1 Calculate electricity exported and imported by two Yihewusu stations ($EG_{\text{ex},Yi,y}$ and $EG_{\text{im},Yi,y}$). $EG_{\text{ex},Yi,y} = EG_{\text{ex},M1,y} \times \frac{EG_{\text{ex},M3,y}}{EG_{\text{ex},M2,y} + EG_{\text{ex},M3,y}}$ $EG_{\text{im},Yi,y} = EG_{\text{im},M1,y} \times \frac{EG_{\text{im},M3,y}}{EG_{\text{im},M2,y} + EG_{\text{im},M3,y}}$ Step2 Calculate net electricity supplied by the proposed project ($EG_{\text{facility},y}$). $EG_{\text{ex},YiII,y} = EG_{\text{ex},Yi,y} \times \frac{EG_{\text{ex},M5,y}}{EG_{\text{ex},M4,y} + EG_{\text{ex},M5,y}}$ $EG_{\text{im},YiII,y} = EG_{\text{im},Yi,y} \times \frac{EG_{\text{im},M5,y}}{EG_{\text{im},M4,y} + EG_{\text{im},M5,y}}$ The net electricity supplied by the project ($EG_{\text{facility},y}$) will be calculated by: $EG_{\text{facility},y} = EG_{\text{ex},YiII,y} - EG_{\text{im},YiII,y}$ The validation team wanted to be sure that there was no chance of over-accounting of the actual $EG_{\text{ex},YiII}$ due to transmission loss assumed in above formula. So the validation team confirmed with the Grid company that they agree with this calculation method. The Grid company also confirmed that the line loss between M2/M3 and M1 is expected to be only 0.404% and the line loss between M4/M5 and M3 is expected to be only 0.2%, so the potential for difference between the line loss assumed in the above calculation and the actual line loss are negligible. The project owner will measure electricity generation continuously and recorded on a monthly basis and crosscheck with measurement results with records for sold electricity. And all CDM relevant data will be kept at least 2 years after end of the crediting period. Thus, the validation team concluded that above formula for the net electricity (EG_{facility}) to account for real reduction of GHG and the monitoring plan are valid in conformity with ACM 0002.	
CL 7:	E.1.1	31 questionnaires were distributed to local stakeholders, and a 100% feedback (31	CL 7 is closed.

APPENDIX A. KFQ VALIDATION PROTOCOL

Please describe composition of stakeholders who were involved in consultation process to show that this consultation process covers relevant stakeholders.		questionnaires) was received. The stakeholders are all local residents including governmental officials (2 people), local residents (26 people) and related employees (3 people). No negative comments have been received. Hence, the validation team confirms that the local stakeholders taken the questionnaires are covered relevant stakeholders considering the composition of the local stakeholders in the PDD and the local stakeholder consultation was reasonably implemented by the PP. And also the composition of the local stakeholders is clearly described in the PDD.	
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Appendix B
Qualification of Validation Team



CERTIFICATE OF COMPETENCE

Name: Yu Shim JEONG

Qualification:

	Validation	Verification
-Lead auditor	☒	☒
-Auditor	☐	☐
-Technical Expert	☐	☐
-Local Expert	☐	☐

Scopes of Expertise:

Sectoral scope		Technical code
1 Energy industries(renewable/non	☒	1.1 wind power, 1.2 Hydropower, 1.3 Solar energy
2 Energy distribution	☐	
3 Energy demand	☐	
4 Manufacturing industries	☒	4.2 Energy efficiency/Waste heat/gas recovery in Petroleum industry
5 Chemical industries	☐	
9 Metal production	☐	
10 Fugitive emissions from fuels(solid, oil and gas)	☐	
11 Fugitive emissions from production and consumption of halocarbons and sulfur hexafluoride	☐	
13 Waste handling and disposal	☐	

Approved by Qualification Committee of KFQ on 31 July 2009



CERTIFICATE OF COMPETENCE

Name: Mi Jung LEE

Qualification:

	Validation	Verification
-Lead auditor	☒	☒
-Auditor	☐	☐
-Technical Expert	☐	☐
-Local Expert	☐	☐

Scopes of Expertise:

Sectoral scope		Technical code
1 Energy industries(renewable/non	☒	1.1 Wind power, 1.2 Hydropower, 1.3 Solar energy, 1.5 Energy Efficiency, fuel switch in power & energy industries
2 Energy distribution	☐	
3 Energy demand	☐	
4 Manufacturing industries	☒	4.3 Biomass waste water in pulp and paper industry
5 Chemical industries	☐	
9 Metal production	☐	
10 Fugitive emissions from fuels(solid, oil and gas)	☐	
11 Fugitive emissions from production and consumption of halocarbons and sulfur hexafluoride	☐	
13 Waste handling and disposal	☐	

Approved by Qualification Committee of KFQ on 31 July 2009