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Validation Report

CECIC HKE WIND POWER CO., LTD
VALIDATION OF THE CDM-PROJECT:
**CECIC HKE ZHANGBEI LVNAOBAO WIND POWER
PROJECT**

REPORT No. 600500230

2010, 13th October

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Report No.	Date of first issue	Revision No.	Revision Date	Certificate No.
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Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich Germany	TÜV SÜD Contract Partner: Jiangsu TÜV Product Service Ltd., Shanghai Branch No. 88 Hengtong Road, Shanghai 200 070 200020 Shanghai, China
Project Participant: CECIC HKE Wind Power CO.,LTD 18th Floor, East Wing, Sichuan Mansion, No. 1 Fuwai Street Xicheng District, Beijing, People Republic of China.	Project Site(s): Zhangbei County, Zhangjiakou City, Hebei Province, P.R. China. The Project has geographical coordinates with east longitude of 114°32'30" and north latitude of 41°03'50"
Project Title: CECIC HKE Zhangbei Lvnaobao Wind Power Project	
Applied Methodology / Version: ACM0002 / Version 10	Scope (s): 1 Technical Area (s): 1.1
First PDD Version: Date of issuance: 06-03-2009 Version No.: 1.0 Starting Date of GSP 10-03-2009	Final PDD version: Date of issuance: 23-09-2010 Version No: 06
Estimated Annual Emission Reduction:	235,797 tCO ₂ e
Assessment Team Leader: Dr. Sven Kolmetz Assessment Team Members: Baoqi Sun Chunyun Wang * Patty Tian * Khalid Mahmood	Technical Reviewer: Sebastian Randig Certification Body responsible: Rachel Zhang
Summary of the Validation Opinion:	
<input checked="" type="checkbox"/> The review of the project design document and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence, TÜV SÜD is recommending the project for registration by the CDM Executive Board if letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version, respectively.	
<input type="checkbox"/> The review of the project design document and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence, TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.	

Abbreviations

ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology Small scale
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	GreenHouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a third party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set forth by the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and results in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM Executive Board (CDM-EB). The ultimate decision on the registration of a proposed project activity rests with the CDM-EB and the parties involved.

The project activity covered by this validation report has been submitted under the project title:

CECIC HKE Zhangbei Lvnaobao Wind Power Project

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In case of CDM project activities the scope is set by:

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions and specific guidance by the EB published under <http://cdm.unfccc.int>
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the sectoral scope applied for
- Applicable environmental, social impacts, and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice

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

Once TÜV SÜD receives a first PDD version, it is made publicly available at the UNFCCC website and at TÜV SÜD's website to start a 30 day global stakeholder consultation process (GSP). In special circumstances, e.g. certain conditions allow the GSP to be repeated, a request to revise the PDD will be processed. The original PDD and the modified PDD will form the basis for the final evaluation. Information on both PDDs is presented on page 1.

The purpose of a validation is its use during the registration process as part of the CDM project cycle. Therefore, TÜV SÜD cannot be held liable by any party for decisions made, or not made, based on the validation opinion, which will go beyond that purpose.

2 METHODOLOGY

The project assessment applies standard auditing techniques to assess the correctness of the information provided by the project participants. The assessment is based on the “Clean Development Mechanism Validation and Verification Manual” version 01. The work starts with the appointment of the team covering the technical scope, sectoral scope(s), technical area and relevant host country experience for evaluating the CDM project activity. Once the project is made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified, and finally preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB “climate and energy” before submission to the CDM-EB.

In order to ensure transparency, assumptions are clear and explicitly stated; the background material is clearly referenced. TÜV SÜD developed methodology-specific checklists and protocol customised for the project. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol serves the following purposes:

It organises details and clarifies the requirements a CDM project is expected to meet;

It ensures a transparent validation process where the Validator has to document how a particular requirement has been validated, as well as the results of the validation and any adjustments, if any, made to the project design.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

Validation Protocol Table 1: Conformity of Project activity and PDD				
Checklist Topic / Question	Reference	Comments	PDD in GSP	Final PDD
<i>The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.</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. In some cases sub-checklists are applied indicating yes/no decisions on the compliance with the stated criterion. Any Request has to be substantiated within this column</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team has identified a need for further clarification. Forward Action Request to highlight issues related to project implementations that require review during the first verification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented in the documentation.</i>

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and cor-	Ref. to table 1	Summary of project	Validation team conclusion

rective action requests		owner response	
<i>If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward Action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue 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 discussion on and revision to project documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final PDD".</i>

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	Id. of CAR/CR	Explanation of the Conclusion for Denial
<i>If the final conclusions from table 2 results in a denial, the referenced request should be listed in this section.</i>	<i>Identifier of the Request.</i>	<i>This section should present a detailed explanation, why the project is finally considered not to be in compliance with a criterion with a clear reference to the requirement which is not complied with.</i>

The completed validation protocol is enclosed in Annex 1 to this report.

2.1 Appointment of the Assessment Team

According to the technical scopes / technical area and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-V)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope / technical area linked to the methodology has to be covered by the assessment team.

Name	Qualification	Coverage of scope	Coverage of technical Area	Host country experience
Dr. Sven Kolmetz	ATL	☑	☑	☑
Sun Baoqi	GHG-V*			☑
Wang Chunyun	T*			☑
Patty Tian	T*			☑

Khalid Mahmood	GHG-V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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*: Not yet appointed; but covering scope and TA as auditor in former times.

Dr. Sven Kolmetz is a physicist and an ATL in GHG auditing at TÜV SÜD “ Carbon Management Service” department located in the head office of TÜV SÜD Industrie Service GmbH in Munich. Furthermore he is officially authorized expert in the verification of GHG emissions in the framework of the European Emission Trading Scheme. Before joining TÜV SÜD he worked as energy consultant for industrial companies and as consultant for the German Federal Government on instruments for the reduction of GHG emissions. He is Head of Department of TÜV SÜD Carbon Management Services.

Mr. Baoqi Sun is a Validator trainee for quality management systems (according to ISO 9001) at Jiangsu TUV Product Service Ltd. He is based in Shanghai. In his position he is responsible for the implementation of validation, verification and certifications audits for management systems. He has received training in the CDM validation process and participated already in several CDM project assessments as an auditor.

Ms. Chunyun Wang is a Validator trainee for environmental management systems (according to ISO 14001) at Jiangsu TUV Product Service Ltd. She is based in Shanghai. In her position she is responsible for the implementation of validation, verification and certifications audits for management systems. She has received training in the CDM validation process and participated already in several CDM projects assessment as an auditor trainee.

Ms. Patty Tian is a Validator Trainee for Quality management system (according to ISO 9001) at Jiangsu TUV Product Service Ltd. She is based in Guangzhou. In her position she is responsible for the implementation of validation, verification and certifications audits for management systems. She has received training in the CDM validation and verification process and participated in several CDM project assessments as a GHG Auditor Trainee.

Mr. Khalid Mahmood has an academic background in Environmental Science. He is a GHG Validator as well as Assessment Team Leader in “TÜV SÜD Carbon Management Service” located in the head office of TÜV SÜD Industrie Service GmbH in Munich, Germany. He is responsible for the carbon market of TÜV SÜD in Middle East and Central Asia. He has received extensive training in the CDM validation, determination and verification processes. He has already participated in several CDM and JI project assessments as auditor and desk reviewer.

2.2 Review of Documents

The first version of the PDD was submitted to the DOE in March 2009. The first PDD version submitted by the PP and additional background documents related to the project design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources (if available) has been done as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

On 8 April 2009 TÜV SÜD performed interviews, telephone conferences, and physical site inspections with project stakeholders to confirm relevant information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in this context.

Name	Organisation
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Ms. Chen Dongjuan	CECIC HKE Wind Power CO.,LTD
Mr. Yao xi	CECIC HKE Wind Power CO.,LTD
Mr. Ma Guojing	CECIC HKE Wind Power CO.,LTD
Mr. Zhang Shuwei	Gold China Consultancy International

2.4 Further cross-check

During the validation process the team makes reference to available information related to similar projects or technologies as the CDM project activity. The documentation has also been reviewed against the approved methodology/ies applied to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which needed to be clarified for TÜV SÜD's conclusion on the project design. The CARs and CRs raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process the concerns raised and responses that have been given are documented in more detail in the validation protocol in annex 1.

The final PDD version submitted September 2010 serves as the basis for the final assessment presented. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM. These are an achievement of reduction of anthropogenic GHG emissions and to contribute to a sustainable development.

2.6 Internal Quality Control

As final step of a validation activity the final documentation, which includes the validation report and the validation protocol, has to undergo an internal quality control by the CB "climate and energy". That means that each report has to be approved either by the head of the CB or the deputy. In projects where either the Head of the CB or his/her deputy is part of the assessment team, approval can only be given by the either one not serving on the project.

After confirmation of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

3 SUMMARY

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2.

3.1 Approval

The project participants are CECIC HKE Wind Power CO., LTD of People's Republic of China, Asian Development Bank as Trustee to Asian Pacific Carbon Fund and Swedish Energy Agency of Sweden. The host Party China and further participant Parties Kingdom of Spain and Sweden meet the requirements to participate in the CDM.

The DNA of Sweden has issued a LoA (IRL 41, 42) on 07 May 2009 authorizing Asian Development Bank as Trustee to Asian Pacific Carbon Fund and Swedish Energy Agency as project participants. The DNA of China has also issued a LoA (IRL 40) on April 2009 authorizing CECIC HKE Wind Power CO., LTD as a project participant. The DNA of Spain has issued a LoA (IRL 53) on 09 October 2009 authorizing Asian Development Bank as Trustee to Asian Pacific Carbon Fund and Kingdom of Spain as project participant. TÜV SÜD received these letters from the project participants directly and considers the provided letters as authentic.

The China LoA has further been double-checked with the CDM project webpage sponsored by the Department of Climate Change, NDRC (<http://cdm.ccchina.gov.cn>), which further confirming the approval of this CDM project.

Furthermore, after checking the provided LoAs, TÜV SÜD confirms that these letters refer to the precise proposed CDM project activity title in line with the title in the PDD "CECIC HKE Zhangbei Lvnaobao Wind Power Project".

Four letters also indicate that each participating Party is a Party to the Kyoto Protocol, and that the participation in the CECIC HKE Zhangbei Lvnaobao Wind Power Project is voluntary. The Chinese LoA also confirms that the proposed CDM project activity contributes to the sustainable development of China (host country). Based on the information given in these letters, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoAs have been issued by the respective Party's DNA, National Development and Reform Commission of the People's Republic of China and Swedish Energy Agency of Sweden, respectively.

TÜV SÜD considers the requirements of the VVM (§§ 45-48) to be complied with.

The LoA does not specify a version number of the PDD or validation report. The corresponding references included to LoA, PDD and validation report are consistent.

3.2 Participation

The participants of the project activity have been approved by the corresponding parties, which are confirmed by the issued LoAs.

The means of validation used are similar to the ones described in section 3.1, specifically in regard to the approval process of the project activity.

3.3 Project design document

The PDD is compliant with relevant form and guidance as provided by UNFCCC.

The most recent version of the PDD form was used.

TÜV SÜD considers that the guidelines for the completion of the PDD in their most recent version have been followed. Relevant information was provided by the participants in the applicable PDD sections. Completeness was assessed through the checklist included in annex 1 of this report.

3.4 Project description

The following description of the project as per PDD was verified during the on-site audit:

The proposed Project is located at Zhangbei County, northwest region of Hebei Province, Zhangjiakou City, China, which is a new-built project and operated by CECIC HKE Wind Power CO., LTD. The total installed capacity of the Project is 100.5 MW equipped with 67 sets of wind turbine generators with a unit capacity of 1500 kW. And the estimated electricity delivered to power grid by the project is 241.70GWh annually, equivalent to 2405 operating hours with full capacity.

The baseline for the project, also the scenario in the absence of the project is importing same amount of electricity from power grid which consisted of fossil fuel fired power plants predominantly. Project activity will generate electricity by utilizing the renewable wind energy and replace the electricity from power grid in baseline, so it will reduce GHG emission about 235,797 tCO₂ annually.

The information presented in the PDD on the technical design is consistent with the actual planning and implementation of the project activity as confirmed by:

- Review of data and information (see annex 2). This was verified with other sources.
- An on-site visit has been performed and relevant stakeholder and personnel with knowledge of the project were interviewed. If doubts arose further investigations and additional interviews were conducted.
- Finally, information related to similar projects or technologies as the CDM project activity have been used to confirm the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the project description, as included in the PDD, is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 Baseline and monitoring methodology

3.5.1 Applicability of the selected methodology

Compliance with each applicability condition as listed in the chosen baseline and monitoring methodology ACM0002 version 10 has been demonstrated.

The assessment was carried out for each applicability criteria and included, among others, the compliance check of the local project setting with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources, which sustain that applicability conditions are complied with.

The methodology specific protocol included in the annex 1 documents the assessment process, which also includes the steps taken. The results on the compliance check, as well as the relevant evidence, are detailed in annex 1.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the project activity.

Emission sources which are not addressed by the applied methodology, and are expected to contribute less than 1% of the overall expected average annual emission reductions have not been identified.

3.5.2 Project boundary

The project boundary was assessed in the context of physical site inspection, interviews and based on the secondary evidence received on the design of the project.

As indicated in the methodology ACM0002 (Version 10), the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to, which was correctly identified as the North China Power Grid. The only GHG and emission source included in the project boundary are the CO₂ emissions from the electricity generation in fossil fuel fired power plants that is displaced due to the project activity.

The most relevant documentation assessed in order to confirm the project boundary is following:

- Feasibility Study Report (FSR) (IRL 7)
- Grid connection approval (IRL 29),
- Approval of land utilization of Lvnaobao wind power project (IRL 32)

The same have been validated during the validation process using standard audit techniques, further details of any observation are transparently presented in the annex 1.

Hence TÜV SÜD confirms that the identified boundary and the selected sources and gases as documented in the PDD are justified for the project activity.

3.5.3 Baseline identification

In the PDD the following baseline scenario has been defined:

As per the ACM0002 (Version 10) methodology, the baseline is clearly defined for this type of project activity (i.e. installation of a new grid-connected renewable wind farm power plant) which is as following.

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations.

The information presented in the PDD has been validated by a first document review of all the data, further confirmation based on the on-site visit and a final step by cross checking the information with similar relevant projects and/or technologies. The sources referenced in the PDD have been quoted correctly. There are 4 alternatives to the project activity identified in the PDD.

Alternative 1 “The proposed Project activity undertaken without being registered as a CDM project activity”.

Alternative 2 “Construction of a thermal power plant with the same installed capacity or the same annual power output.” is not in line with national law and regulation requirements in China evidenced by Notice on Strictly Forbidding Construction of Fossil Fuel Fired Power Plants of or under 135 MW issued by State Council on 15 April 2002 (IRL 39)

(http://www.gov.cn/gongbao/content/2002/content_61480.htm)

Alternative 3 “Construction of a power plant using another renewable energy resource like solar PV, geothermal and biomass of similar installed capacity as the proposed project with the same installed capacity or the same annual power output.” is not feasible alternative in Hebei region. Only hydropower projects can have an investment return rate that competes with that of wind power projects in China.

Alternative 4) Comparable capacity or electricity generation addition provided by the NCPG.

Therefore, alternative 2 is not feasible and 1,3 and 4 is consistent with Chinese Law and regulations. The alternative 1 and 3 are not economically feasible.

Therefore, the baseline scenario is concluded to be Alternative 4 "Continuation of the current situation, i.e. electricity will continue to be generated by the existing generation mix operating in the grid." which is common practice and has no barriers verifiable and credible sources.

The information was cross-checked based on verifiable and credible sources, such as:

- Feasibility Study Report (IRL 7)
- Prohibition to construct fossil-fuel fired power plants with less than 135 MW (IRL 39),
- Grid connection Approval (IRL-29)
- ACM0002 Version 10 which clearly defines the baseline as indicated above.

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions on calculations TÜV SÜD considers that the identified baseline scenario is reasonable.

TÜV SÜD confirms that all relevant CDM requirements, including relevant and / or sectoral policies and circumstances, have been identified correctly taken into account in the definition of the baseline scenario.

A verifiable description of the baseline scenario has been included to the PDD.

In regard to item 86 of VVM, TÜV SÜD confirms that:

1. All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
2. All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
3. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
4. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
5. The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.5.4 Algorithm and/or formulae used to determine emission reductions

TÜV SÜD has assessed the calculations of project emissions, baseline emissions, leakage, and emission reductions. Corresponding calculations were carried out based on calculation spreadsheets. The parameters and equations presented in the PDD as well as other applicable documents have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files. The assumptions and data used to determine the emission reductions are listed in the PDD and all the sources have been checked and confirmed.

Based on the information reviewed it can be confirmed that the sources used are correctly quoted and interpreted in the PDD.

The values presented in the PDD are considered reasonable based on the documentation and references reviewed as well as the result of the interviews.

The baseline methodology has been correctly applied according to the requirements.

The estimate of the baseline emissions can be confirmed as the same that have been replicated by the audit team using the information provided.

Detailed information on the verification of the parameters used in the equations can be found in annex 1. The algorithms for the determination of the baseline, project, and leakage are discussed in the following sections.

3.5.4.1 Baseline Emissions

The calculation of the baseline emissions followed the procedures described in the methodology ACM0002 Version 10.

The operating margin emission factor (EF_{OM}) was determined based on the simple OM method. The ex-ante option was chosen for this calculation. The calculation of the build margin emission factor (EF_{BM}) was based on modified methods agreed by the EB, because plant specific data are not available in China. The emission factor of the thermal power plants was calculated by the proportion of the emissions of coal, gas and oil times the emission factor of the best available coal, gas and oil power plant as defined and published by the Chinese DNA. The new thermal capacity installation that exceeded 20% in the last years, for which data was available, was finally assessed with this factor.

The baseline calculation was based on the published OM/BM calculation process issued by the NDRC (China DNA). The values for the EF_{OM} and EF_{BM} were same compared to the values published by the Chinese DNA on December, 2008. At the time of commencement of the validation (Start of GSP) the values for the EF_{OM} and EF_{BM} were same as applied in the final PDD of the project. Since these values can be considered as appropriate and realistic, these were accepted for the calculation of the baseline emissions and the emission reductions.

The value for the combined margin emission factor (EF_{CM}) was determined using the weighted average of the EF_{BM} and EF_{OM} using the default values for the factors as described in the methodology ($EF_{CM}=0.25EF_{BM} + 0.75EF_{OM}$).

3.5.5 Project emissions

As per the methodology, the project does not need to consider project emissions.

3.5.6 Leakage

As per the methodology, the project does not need to consider leakage.

3.5.7 Emission Reductions

In summary, the calculation of the baseline emissions, project emissions, leakage and the emission reductions, respectively, can be considered as correct.

3.6 Additionality

The additionality of the project has been presented in the PDD using the steps of "Tool for the demonstration and assessment of additionality" (Version 05.2).

The approach use in the PDD has been assessed first based on a document review, where following relevant documents have been reviewed:

- Feasibility Study Report (IRL-7)
- Approval of Feasibility Study Report (IRL-8)
- Interim Measures for Economic Evaluation on Electric Power Technical Reconstruction Project, Document No. GuoDianFa [2002]623 (IRL 15)

- Financial analysis spreadsheet (IRL 24)

On site the additionality has been discussed principally with: Ms. Chen Dongjuan, Project Manager of CECIC HKE Wind Power CO., LTD. Furthermore some documents have been reviewed on-site (for details see annex 2).

Finally the data, rationales, assumptions, justifications and documentation provided have been check using local knowledge and sectoral and financial expertise, the same has been cross checked by:

- NDRC Tariff Approval (IRL 44)
- China Statistics Yearbook 2007 (IRL 45)
- Financial analysis spreadsheet (IRL-24)
- Letter of loan proposal for Lvnaobao wind farm project (IRL-26)
- Notice of Value Added Tax Policy regarding to comprehensive utilization of sources and other products.(IRL-35)
- Information about CDM projects around CECIC HKE Zhangbei Lvnaobao Wind Power Project (IRL 46)
- CDM consulting contract (IRL 11)

Based on these validation steps we can confirm that the documentation assessed is appropriate for this project.

3.6.1 Prior consideration of the clean development mechanism

The starting date of the project activity is determined by signing of the equipment purchase contract of main equipment dated March 30th, 2008 (IRL 13), when the real action (EB 41 § 67), i.e. the first commitment to any expenditure was made. In order to confirm the same, the assessment team has reviewed the following document: Purchase Contract of wind turbine (IRL-13), additionally the assessment team cross checked this information with Ms. Chen Dongjuan, Manager of CECIC HKE Wind Power CO., LTD (IRL 6).

- Purchase Contract of wind turbine by CECIC HKE Wind Power CO.,LTD & Dongfang Electric Group Dongfang Steam Turbine Co., Ltd. (IRL-13)

The starting date of the project activity is determined to be March 30th, 2009 which is after 02 August 2008 but before the GSP (GSP period was from March 10th to 8th April, 2009). The PPs have presented to the assessment team following documentation:

- The Board meeting of CECIC HKE Zhangbei Lvnaobao Wind Power project (IRL 12) indicates that the project participant was aware of the CDM prior to the starting date, and that the benefits of the CDM were a decisive factor in the decision to proceed with this project. This fulfil the requirement of EB 49 Annex 22 page 1 § 6 a.

The original of Board Meeting Resolution presented have been reviewed and cross checked based on interviews with Ms. Chen Dongjuan, Manager of CECIC HKE Wind Power CO., LTD., hence the documents can be considered appropriate to confirm the prior consideration. Additionally in order to confirm that the PPs have taken real actions to continue the activity as CDM, following timeline has been reviewed against the respective documents presented in the table below:

On-going CDM Activities of proposed hydropower project

Activity	Document	Auditor conclusion
March-2008 Board meeting	Copy of Board Meeting Resolution (IRL 12)	Decision of board of director to develop the project as CDM project has been verified. Early CDM consideration
March, 2008	Copy of purchase contract of wind	

Purchase Contract of wind turbine was signed	turbine (IRL 13)	Starting date of the project
March-2008 CDM consulting contract was signed	Copy of CDM Consultation Contract (IRL 11)	Signing of the contract between PP CECIC HKE Wind Power CO., LTD and GoldChina Consultancy International Co., Ltd clearly indicates on-going CDM actions.
December-2008 Emission Reduction Purchase Agreement (ERPA) was signed	Copy of ERPA (IRL 38)	Signing of the ERPA between CECIC HKE Wind Power CO., LTD and Asian Development Bank clearly indicates on-going CDM actions.
March-2009	Start of GSP	Verified
April-2009 LoA from China	Copy of LoA from China (IRL 40)	Issuance of LoA by host country clearly indicates on-going CDM actions.
May-2009 LoA for Asian Development Bank as Trustee to Asian Pacific Carbon Fund from Sweden	Copy of LoA for Asian Development Bank as Trustee to Asian Pacific Carbon Fund from Sweden (IRL 41)	Issuance of LoA from Sweden clearly indicates on-going CDM actions
May-2009 LoA for Swedish Energy Agency from Sweden	Copy of LoA from Sweden (IRL 42)	Issuance of LoA from Sweden clearly indicates on-going CDM actions.
October-2009 LoA for Kingdom of Spain	Copy of LoA from Kingdom of Spain (IRL 56)	Issuance of LoA from Kingdom of Spain clearly indicates on-going CDM actions.

Hence the project complies with the requirements to demonstrate the prior consideration of the CDM and continuing and real actions were taken to secure CDM status for the project in parallel with its implementation.

3.6.2 Identifications of alternatives

The output of the project is electricity which will be supplied to North China Power Grid. The list of alternatives to supply the electricity, which is presented in the PDD, includes the project activity undertaken without being registered as CDM project. The rest of the alternatives presented do include all plausible scenarios taking into account the local and sectoral situations for the mentioned results. The list of alternatives is therefore considered complete.

3.6.3 Investment analysis

The PP uses the investment analysis to demonstrate the additionality. The financial returns of the proposed project are insufficient to justify the investment.

The parameters used in the financial calculations (as per EB 51, Annex 51) have been validated based on a review of the sources presented in the PDD, inter alia: Feasibility Study Report (IRL-7), Approval of Feasibility Study Report (IRL-8) and Tariff notice from Local Development and Reform Committee (IRL 44), as well as *benchmark evidence-Interim Measures For Economic Evaluation On Electric Power Technical Reconstruction Project, Document No GuoDianF [2002] 623 (IRL 15)*. The same were confirmed verbally on-site.

- Purchase Contract of wind turbine by CECIC HKE Wind Power CO., LTD & Dongfang Electric Group Dongfang Steam Turbine Co., Ltd. (IRL-13) to compare actually with estimated investment cost.
- Feasibility Study Report (IRL-7)
- Financial analysis spreadsheet (IRL 24)
- Interim Measures for Economic Evaluation on Electric Power Technical Reconstruction Project, Document No. GuoDianFa [2002]623 (IRL 15)

- Grid connection approval (IRL 29),

Furthermore the period of time between the finalization of the FSR (March 2008) and the investment decision with Board Resolution (March 5th, 2008) is less than a month therefore it can be confirmed that it is unlikely that the input values have materially changed. All input data in the financial analysis are taken from the FSR (IRL 7).

Furthermore, additional documents are provided to prove that the total investment, annual generation, the electricity tariff, and the annual O&M cost used in IRR spreadsheet are realistic:

The project received request for review in August 2010, and the Board agreed to register, subject to satisfactory corrections (see EB 56, Para 66 § ai):

“CECIC HKE Zhangbei Lvnaobao Wind Power Project” (3399), if the project participant and the DOE (TÜV SÜD) submit a revised PDD and the corresponding validation report which incorporate the information submitted in response to the request for review regarding the suitability of input values to the investment analysis. While the concern of the Board on the trend of tariff for similar projects exporting electricity to the same grid, as per EB 53, annex 32, has not been fully substantiated, the Board considers the project activity additional as with the application of the calculated reference tariff, validated by the DOE, the project IRR does not cross the benchmark;

Total investment:

According to information from the PP on this project, the installation of the wind turbines is nearly complete and full commissioning is expected at the end of 2010. The total investment cost of the proposed project is 890.79 Million RMB which are derived from the Feasibility Study Report (FSR) prepared by a third party design institute “China Power Construction Engineering Consultant Company” in March 2008 (IRL 7), and officially approved by National Development and Reform Committee in July 2008 (IRL 8).

The total investment figure was thoroughly checked and discussed by the audit team during the validation process. The investment cost per kW of the proposed project is 8864 RMB/kW in FSR (IRL 7). This figure is less than the investment cost of the wind farms in China, which is approximately 10,000RMB/kW (IRL 59). The approved FSR contains the estimated value of total investment which can be cross checked with already occurred expenditure (shown from the signed contract lists). The values of the signed contracts including the purchase of wind turbine generators, main transformer and other main components is 912.38 million RMB, which is 2.4% higher than the total estimated investment in the FSR (IRL 61). Thus, the estimated investment costs in the FSR are conservative. From the comparison of the proposed project with CDM registered projects in Hebei province provided in Table R-8 of PDD, it can be seen that the investment costs for this project are well within the range of 7640-11171 RMB/kW.

Annual O&M cost:

The annual O&M costs are estimated in the FSR as 27.10 Million RMB per year, which are 3% of the total investment cost in the full operating period. This is approximately 0.112 RMB/kWh, which is small compared to other projects in Hebei province (Table R-8 of PDD). During the early stage of the project when the equipment is new, the maintenance costs are generally low but costs increase as the equipment ages. So the actual O & M cost of the proposed project is likely to increase over time. Thus, the actual O & M costs of the proposed project as stated in the FSR are conservative.

Annual electricity delivered to grid (Operating hours) :

According to the FSR, estimated power supplied to grid is 241,700MWh with an annual operation time of 2405 hours, resulting in a load factor of 27.45%. FSR prepared by a third party design institute “China Power Construction Engineering Consultant Company” in March 2008 (IRL 7), and officially approved by National Development and Reform Committee in July 2008 (IRL 8). So the plant

load factor (PLF) for CECIC HKE Zhangbei Lvnaobao Wind Power Project is in line with EB guidelines (EB 48, Annex 11 option b). According to (IRL 60) “*New and renewable sources of energy in China - technologies and products issued in 2001 by Chinese renewable energy industries association*”, the average operational hours for wind turbines in China is about 2300 hours per year which is similar to the estimated operational hours of the proposed project in the FSR and PDD. Furthermore, it is also similar to projects located near the proposed project in Hebei province listed in Table R-8 of PDD which shows that the proposed project has a similar average number of operating hours compared to other projects - ranging from 1950-2586 hours. So the estimation of electricity delivered to the grid annually in the FSR & PDD is reasonable and conservative.

Electricity tariff:

How the applied tariff was determined:

According to Feasibility Study Report and its approval (IRL-7, 8), tariff policy includes two stages: 0.5006 RMB/kWh (with VAT) during first 30,000 operation hours, and 0.4500RMB/kWh (with VAT) after first 30,000 operation hours. The applied tariff in the proposed project is taken from Feasibility Study Report (IRL 7). During the preparation of the FSR, the Project participants received the official document for the tariff as the “*The notification of Fa Gai Neng Yuan [2007]1283*” (IRL 49) in June 2007. According to this tariff guidance on tariff the proposed project should be constructed and managed according to the tariff and condition of “CECIC HKC Danjinghe Wind Farm Project” 0.5006 Yuan/kWh with VAT, (hereafter referred to as “*Danjinghe Project*” registered on December 29th, 2008, UNFCCC registration no 2170) (IRL 50). TÜV SÜD has checked the reference tariff of “*Danjinghe Project*” dated August 2006 from the China Electric Power Yearbook 2007 (IRL 45), which shows the tariff of 0.5006 Yuan/kWh with VAT for its first 30,000 hours. It was available during the preparation of the FSR of the project. So based on the notice, the authorized third party (China Power Construction Engineering Consultant Company) used the same price value of 0.5006Yuan/kWh (With VAT) for its first 30,000 hours, after that 0.4500 (with VAT) Yuan/kWh as the tariff applied in the FSR and finalized FSR in March 2008. In addition, in the FSR approval issued by NDRC on July 17th 2008 (IRL 08), tariff value (0.5006 Yuan/kWh with VAT) was confirmed.

Considering tariff trend of wind power projects exporting electricity to the same grid: In China, the approval authority is controlled by national government or provincial government based on the scale or size class of the project, as it is ruled by the national government. Hebei provincial governments approval authority is limited to projects with a capacity of below 50MW, projects with a capacity equal to and larger than 50MW shall be approved by the national government, NDRC (IRL 57). As the proposed project has an installed capacity of 100.5MW its tariff shall be approved by the national government.

It is clear from the comparison table below that the difference in the main input values between the proposed project and average value of ordinary projects is quite high and especially the unit investment and load factor. Due to the installed capacity of the proposed projects, it benefits from economies of scale and hence generally receives lower tariffs than relatively ordinary projects (less than 50MW). By comparing the unit investment, the proposed project has 15.8% less than the average unit investment of small wind power projects.

The plant load factor of the project is 7.6 % higher than that of the average projects (less than 50 MW) because the proposed project is located in favourable wind resources area.

Table: Comparison of basic input values for the proposed project and ordinary projects in Hebei province

	The proposed project	Small projects (Average project)	Comparison
	A	B	C=(B-A) /A

Capacity (MW)	100.5 MW	46 MW	-54.3%
Unit investment (RMB/kW)	8864	10269	15.8%
O & M Cost (RMB/kWh)	0.112	0.107	-4.2%
Project load factor	27.5%	25.4%	-7.6%
Tariff (RMB/kWh, including VAT)	0.5006	0.5605	12.0%

The tariff comparison table below shows that project greater than 52MW in the Hebei province has the same tariff as the proposed project (0.5006 RMB/kWh), apart from the “Hebei Chengde Weichang Yudaokou Pasture 150 MW Wind Farm Project (150MW)”, which uses a two phase tariff approach for different periods of operation (0.551 RMB/kWh for the first 3000 hours of operation and 0.3664 after this).

Furthermore, by applying the highest tariff of 0.551 RMB/kWh for the proposed project in the first phase and 0.3664 RMB/kWh in the second phase, the IRR is 6.76%. Conservatively, if 0.551 RMB/kWh applied for the whole life of the proposed project, the IRR is 7.98% which is still below the benchmark (8%).

Table: Projects with an installed capacity greater than 50MW in Hebei Province

N o.	Project	Tariff (including VAT) RMB/kWh	Reference	CDM status	IRR in PDD
1	CECIC HKC Danjinghe Wind Farm (200MW)	0.5006	Fa Gai Neng Yuan [2007] 654 by NDRC in Mar 2007	Registered CDM Ref No.2170	6.99%
2	CECIC HKE Zhangbei Lvnaobao Wind Power Project (100.5MW)	0.5006	Fa Gai Neng Yuan [2008] 1815 issued by NDRC in Jul 17,2008	(The proposed project)	6.3%
3	Hebei Shangyi Qijiaoshan Wind farm (199.5MW)	0.5006	Fa Gai Neng Yuan [2008] 1812 issued by NDRC in Jul 2008	Registered CDM Ref No.1854	6.71%
4	SDIC Hebei Zhangjiakou Kangbao Pasture Wind Farm Project (100.5MW)	0.5006	Fa Gai Neng Yuan [2007] 1283	CDM under validation	6.2%
5	Hebei Chengde Weichang Yudaokou Pasture 150MW Wind Farm Project (150MW)	0.551 within 30000 hours, after that, 0.3664	Fa Gai Neng Yuan [2008] 386 issued by NDRC in Feb 2008	CDM under validation	5.26%

Table R-8 (page 21 of PDD) shows 47 wind projects in Hebei province and has 5 different tariffs of 0.65, 0.61, 0.60 or 0.54 RMB/kWh over time.

The proposed project falls within wind resource area II under the 2009 Information on the Policy of Wind Farm On-Grid Tariff, which area is prescribed a tariff of 0.54 while the project is located in Zhangbei County, Zhangjiakou City, Hebei Province). According to the “Information on the policy of

wind farm on-grid tariff” (Fa Gai Jia Ge 2009(1906) (IRL 63), the tariff of 0.54 RMB/kWh is only applicable for projects approved after August, 2009. So it is clear that 0.54 RMB/kWh is not applicable to the proposed project.

Both projects mentioned in table below were implemented before the Power Sector Reform when the electricity market was not competitive and wind technology not mature in China and the main purpose of these projects was to accelerate wind farm power development that is why these project got the higher tariff of 0.65 RMB/kWh. Therefore, the tariffs awarded to these two projects should not be compared to the tariff awarded to the proposed project.

Table: The attributes of the projects with the highest 0.65 RMB/kWh tariff level

No.	Project	Year of commissioning	Capacity (MW)	Tariff (including VAT) Yuan/kWh
1	Zhangbei Changcheng wind farm	1996.2 (Changcheng wind power-government support and foreign loans and initiative.pdf)	9	0.65 (Ji Jia Ge [2002]242 issued by NDRC in Feb, 2002) (http://www.fjjg.gov.cn/fjwj/jgfw/gjjgzc/webinfo/2002/02/1187774415686122.htm)
2	Chende Hongsong wind farm phase I	2001.11 (Evidence name: Chengde Hongsongwan commissioning 2001.pdf)	3.6	

0.61 RMB/kWh another wind resource area projects

According to guidelines of “Notice on improving policies for on-grid wind power prices issued by NDRC” (Fa Gai Jia Ge 2009 (1906) (IRL 63), the four wind resource regions are to be determined over the whole country and a guiding tariff for each region is to be determined as 0.51, 0.54, 0.58 and 0.61RMB/kWh (VAT incl.) for wind recourse area I/II/III/IV, respectively. Therefore, the tariffs of 0.51, 0.54, 0.58 and 0.61RMB/kWh awarded to the projects in Wind Resource Area IV of Hebei are not comparable to the proposed project.

Reference Tariff Comparison

The reference tariff has been calculated by using a process where the average financial parameters (investment cost per kWh, O&M costs, load factor (operating hours) and income tax rate) were substituted, for projects mentioned in table R-8 of PDD into our project, and keeping all other assumptions the same, arrive at an IRR. This IRR is then used to determine an equivalent or “reference tariff”. The reference tariff allows comparing projects using the same base financial parameters, and thus gives us a fairer way of comparing projects.

By using the tariff of 0.60, 0.61, 0.65RMB/kWh for the proposed project and considering the average financial parameters, different hypothetical IRR and different *reference tariffs* the project were seen but none of the IRR does not cross the benchmark of 8%.

Thus it can be seen that at the highest tariffs level of 0.65, 0.61, and 0.60 RMB/kWh, the corresponding reference tariffs all result in project IRRs less than the 8% benchmark and can be considered additional. A summary of the reference tariffs can be seen in PDD and the table below.

Table: Summary of the calculated reference tariff under different highest tariff options

Options as the highest tariff (RMB/kWh, with VAT)	0.60	0.61	0.65
Reference tariff (RMB/kWh, with VAT)	0.5225	0.4700	0.4994
Corresponding IRR(%)	6.75	5.67	6.27

Based on above discussion related to electricity tariff, the main findings are as follows;

- The project parameters for the proposed project (investment cost, O&M cost, electricity delivered to the grid and operating hours, and the electricity tariff) are appropriate and comparable to projects in the same province (Hebei). This is substantiated with evidence in this response.
- The proposed project is a large project with capacity over 50 MW approved by the National Development and Reform Commission (NDRC), which is different in many aspects (especially the approval authority, unit investment, and load factor) to the small projects (<50MW). It is deemed appropriate to be compared to the project above 50MW in the Hebei province.
- The highest tariff for large project (above 50MW) in Hebei is 0.551 Yuan/kWh. By application of this highest tariff for the whole life of the proposed project, the IRR of the project increases to (7.98%) and still remains below the benchmark.

Even if the proposed project is set to compare with projects less than 50MW, using a method of **reference tariff** derived from average financial parameters from other CDM projects in Hebei at tariffs of 0.65, 0.61, and 0.60 RMB/kWh, it can be seen that the proposed project IRR remains below the 8% benchmark with the level of reference tariff and thus remains additional.

Based on its local and sectoral expertise, TÜV SÜD confirms that applied parameters are plausible and can be considered acceptable under the project situation.

Benchmark

The benchmark used for the financial comparison has been obtained from “Interim Measures for Economic Evaluation on Electric Power Technical Reconstruction Project, Document No GuoDianFa [2002]623” (IRL 15). This value has been checked against the source and the suitability for this project can be confirmed as conservative based on TÜV SÜD’s local and sectoral expertise. Typically, a higher benchmark of 10% is applied (IRL 15) for this type and capacity of project, thus the lower applied benchmark 8% can be considered as conservative. In summary, Based on its local and sectoral expertise, TÜV SÜD confirms that the applied benchmark used is adequate for this project.

Sensitivity analysis:

In the sensitivity analysis test, variation of $\pm 10\%$ has been considered. As variations of $\pm 10\%$ correspond to the recommended variation range for engineering projects in China. And 10% is the latest guidance from EB as indicated in the guidance on the investment analysis from EB41 (Annex 45). It deems reasonable to use the applied variables, they present well realistic variations of these key parameters. To conclude the sensitivity analysis it can be stated that under none of the assumed variation of variables the benchmark of 8% is met. We thus conclude the project is financially unattractive without CER revenues. The investment analysis compares the internal rate of return (IRR) of the project with the benchmark.

The IRR of total investment of the proposed project is 6.30% which is lower than the applied benchmark 8%. Due to poor IRR, the Project is not financially attractive. But with additional revenue from CDM level, the IRR is 10.05% which is above the benchmark which means that the proposed Project would be financially attractive.

Further assumptions presented in the financial analysis inter alia lifetime and taxes have been also reviewed and were found appropriate based on FSR (IRL 7). Hence it can be confirmed that the underlying assumptions are appropriate for this project.

The sensitivity analysis was analyzed in detail and we herewith confirm that the underlying assumptions, parameters and chosen values are appropriate and that the calculations have been performed correctly.

In summary, the financial calculation has been completely checked, all the calculation files were checked and no mistakes have been found. Hence it can be confirmed that the calculations are correct.

3.6.4 Barrier analysis

Barrier analysis was not employed in PDD.

3.6.5 Common practice analysis

The region for the common practice analysis has been defined as Hebei (around Zhangjiakou region) where the proposed project is located. The project activity's technology can be found in different country regions, where different situations can appear. Hence the region has been defined taken into account the kind of technology and the industry type. The assessment team has reviewed the approach presented in the PDD and can confirm that the relevant parameters as location, infrastructure, economical situation and development has been taken into account in order to define the region to be used for the common practice. Hence the presented region can be considered appropriate for the common practice analysis.

The statistics of wind power installed capacity in China 2007 by Shi Pengfei is used to assess to analyze the common practice (IRL 17). According to EB guideline, the projects having the capacity less than 15MW are not considered in the common practice analysis because proposed project is a large scale project.

Only two projects, Shangyi Manjing and Chengde Hongsong can be considered the similar projects to the proposed project. Both projects have been listed in table 7 of PDD. Both the above mentioned projects are VCS project and faces financial barriers. Both projects are carbon funding to overcome the financial barrier. So the wind power projects with similar installed capacity without carbon income are not the common practice in Hebei Province.

The common practice analysis confirms that the proposed project would not be feasible without additional revenues from the CDM. Therefore, the project is additional.

3.7 Monitoring plan

The monitoring plan presented in the PDD complies with the requirement of the methodology. The assessment team has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant for the project activity have been found in the plan.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel; this information together with a physical inspection allows the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The major parameters to be monitored have been discussed with the PPs especially regarding the location of the meters, the data management and in general the quality assurance and quality control procedures to be implemented in the context of the project.

The electricity exported to the grid and imported from the grid will be measured continuously and automatically by main meter and backup meter, which will be recorded and collected monthly, and archived by the CDM team established by CECIC HKE Wind Power CO., LTD. The team is also responsible for monitoring the measurement equipments, collecting and archiving data in different medium, preparing monitoring report, implementing QA/QC procedure as required.

Data confirmation and troubleshooting procedure was also established between project owner and local power company which is part of NCPG, it can guarantee the correctness and conservativeness of the data.

The monitoring plan is in line with the methodology (ACM0002 Version 10).

Hence it is expected that the PP will be able to implement the monitoring plan and the emission reductions achieved can be reported ex-post and verified.

3.8 Sustainable development

The LoA of the host country presented a statement that the project contributes to the sustainable development of the host party.

3.9 Local stakeholder consultation

The relevant local stakeholders have been invited via Notice of stakeholder meeting (IRL-19). The evidence of these invitations is IRL 20 and 21. The assessment team has reviewed the documentation in order to validate the inclusion of relevant stakeholders and using the local expertise can confirm that the communication method used to invite the stakeholders can be considered appropriate. The summary of comments presented in the PDD has been cross checked with the documentation of the stakeholder consultation and it is found to be complete.

The relevant comments presented by the local stakeholders have been taken due account by the PP, the same has been cross checked with the information obtained during the interviews.

Hence the local stakeholder consultation has been adequately performed according to the CDM requirements.

3.10 Environmental impacts

The project participants undertake an environmental impact assessment. The assessment team made a document review of the information presented. The Environmental Impact Assessment Report (IRL-9) confirms the correctness of the approach used by the PPs. Hence the PPs followed the requirements of the host country regarding the environmental impact.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on the UNFCCC website by installing a link to TÜV SÜD's own website, and invited comments by affected parties, stakeholders, and non-governmental organisations during a 30 day period.

The following table presents all gathered key information:

website: http://cdm.unfccc.int/Projects/Validation/DB/LJ1NM57PC079CPRC4C6DJ724N58DV3/view.html	
Starting date of the global stakeholder consultation process: 2009-3-10	
Comment submitted by: None	Issues raised: -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

CECIC HKE Zhangbei Lvnaobao Wind Power Project

Standard auditing techniques have been used for the validation of the project. Methodology-specific customised checklists and protocol for the project have been prepared to carry out the audit in order to present the outcome in a transparent and comprehensive manner.

The review of the project design document, subsequent follow-up interviews and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD will recommend the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are 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 as specified within the final PDD version.

The validation is based on the information made available to us as well as the engagement conditions detailed in this report. The validation has been performed following the VVM requirements. The single purpose of this report is its use during the registration process as part of the CDM project cycle. TÜV SÜD can therefore not be held liable by any party for decisions made, or not made, based on the validation opinion beyond that purpose.

Munich, 13-10-2010

Munich, 13-10-2010



Deputy head of Certification Body "Climate and
Energy"
TÜV SÜD Industrie Service GmbH

Assessment Team Leader

Validation of the CDM Project:
CECIC HKE Zhangbei Lvnaobao Wind Power Project



Industrie Service

Annex 1: Validation Protocol

Validation Protocol

Project Title: CECIC HKE Zhangbei Lvnaobao Wind Power Project

Date of Completion: 13/10/2010

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Table 1 Conformity of Project Activity and PDD

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
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?	1	Yes, Project title include project name, project location, energy source, and abbreviation of project owner, so it can be viewed as unique CDM activity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1	Yes, Current version number of the PDD is version 01.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the project's history?	1	Yes, It is consistent with the time line of project history which was confirmed during on-site audit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2. Description of the project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	1, 7	Proposed project will install 67 sets of wind turbine generators with each 1500kW capacity, annual electricity delivered to North China Power Grid would be 241.70GWh which will result in GHG emission reduction about 254,960tCO2 annually. Scenario in absence of project activity is imported electricity from NCPG which also be viewed as baseline scenario. Clarification Request 1: Please include annual operation hours in section A.2 of the PDD.	CR1	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or plan-	1,7, 8,9,	Yes, Check documents on site include:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Validation Protocol

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
ning?	10,1 2,13	FSR and approval EIA and approval Decision of Board of Director Meeting Purchase Contract of wind turbine The documents reviewed during on-site audit are evidence that project description in PDD is in compliance with actual situation.		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1,7	Yes. Information presented in PDD is consistent with evidence documents.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1,7	Yes, Information presented within PDD is consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?	1	Yes, The form required for the indication of project participants has been correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1	Open issue: LoA from project participants need be provided to audit team before project registration. The LoA from the project participants has been delivered to DOE.	Open issue	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	Yes, Information is consistent in this section and in Annex 1.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Validation Protocol

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.4. Technical description of the project activity				
<i>A.4.1. Location of the project activity</i>				
A.4.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1,7	<u>Corrective Action Request 1:</u> 1. Please include Zhangjiakou city in A4.1.3. 2. Please use English name in the third map.	CAR1	<input checked="" type="checkbox"/>
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.)?	1,7,8,9,10,12,13,25	Documents reviewed on site include: FSR and approval EIA and approval Business license Approval of civil engineering construction Purchase contract of wind turbine. Documents mention above can be evidenced that project proponent can implement the project at the site.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>A.4.2. Category(ies) of project activity</i>				
A.4.2.1. To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	1,2,	Yes, Project activity belongs to sectoral scope 1: energy industries- renewable energy source.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>A.4.3. Technology to be employed by the project activity</i>				
A.4.3.1. Does the technical design of the project activity reflect current good practices?	1,7	1500kW wind turbine generator employed in project activity is manufactured by domestic supplier, Dongfang Steam Turbine Manufacturer which leads the technical edge in wind turbine generator production in host country. Grid connection system and	CAR2	<input checked="" type="checkbox"/>

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		<p>measurement equipment also represent the good practice in recent years.</p> <p><u>Corrective Action Request 2:</u></p> <ol style="list-style-type: none"> Please use the international unit for technical variables in table 1. Please include unit for “rated voltage”. Page 4, last paragraph: “the project is expected to operate fully for 22 years from the beginning of 2010”. The statement should be revised as “from the beginning of 2011”after progress confirmation during site audit. 		
A.4.3.2. Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1,7	<p>Yes,</p> <p>Proposed project will use wind energy to generate electricity which will be delivered to NCPG and displace electricity that are dominantly generated by coal burned power plant. GHG emissions from thermal power plant would be greatly reduced when proposed project implemented and generated electricity.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.3. Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1,7,13	<p>No,</p> <p>The technology is taken from domestic supplier. All the WTGs are manufactured and assembled by the Dongfang Steam Turbine co. Limited</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.4. Is the technology implemented by the project activity environmentally safe?	1,9,10	<p>Yes,</p> <p>Technology employed by proposed project is environmentally safe from, the waste, noise; impact on ecosystem would fall within the limit of national regulation.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.5. Is the information provided in compliance with actual situation or planning?	1,7,8,9,10	<p>Yes,</p> <p>Information provided in PDD is complied with the evidence documents reviewed on site.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1,7,8,9,10	Yes, Technology employed in project activity reflect the current advanced practice in equipment manufacturing, installation and commissioning in host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,7,8	Yes, It is not expected any substitution for current technology would be occurred within project period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1,7,8,27,28	Yes, Technical training of installation, operation, and maintenance has been performed by equipment supplier.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	1,7,8,27,28	Yes, Training plan in equipment contract and personnel training certificate was available and reviewed by audit team during on site audit. IRL-27, IRL-28	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?	1,7,8	Yes, Project schedule was provided to audit team and there is no risk for delay according to current progress confirmed during site visit Project schedule was included in FSR, so IRL-7 was used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 applied?	1,2,3,4	Yes, Form required for the indication of projected emission reductions is correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?	1,7,8	Clarification Request 2: 1. Compare 1784719tCO2 in text with 1650582 tCO2 in table,	CR2	<input checked="" type="checkbox"/>

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		which one is correct?		
A.4.5. Public funding of the project activity				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1,7,8 ,26	There is no public funding involved in the proposed project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1,7,8 ,26	Yes, It is consistent within PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology				
B.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1,2,3 ,4	<u>Corrective Action Request 3:</u> Please keep title of methodology consistent with that published on UNFCCC website.	CAR3	<input checked="" type="checkbox"/>
B.1.2. Is the applied version the most recent one and / or is this version still applicable?	1,2	Yes, ACM0002 version 10 is applied. It is most recent version and still applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.1.3. If the baseline and monitoring methodology, applied in the original PDD, was withdrawn after the registration of the CDM project activity and replaced by a consolidated methodology: Is the latest approved version of the respective consolidated methodology used?	1,2	Yes, The latest approved version of methodology is used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.1.4. In the case the registered CDM project activity does not meet the applicability crite-	1,2	Yes,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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ria of the options provided in B.1.2. or B.1.3., due to their revision or due to the update of the baseline: Have the project participants either selected another applicable approved methodology or request, through the DOE, a deviation from an approved methodology for the purpose of renewal of the crediting period?		Project participant will use the same methodology.												
<p>B.1.5. Does the methodology refer to the following tools with its latest approved versions:</p> <ul style="list-style-type: none"> - Tool to calculate the emission factor for an electricity system - Tool for the demonstration and assessment of additionality - Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion 	1,2,3,4	<p>Yes,</p> <p>The applied methodology refers to the following tools</p> <ul style="list-style-type: none"> - Tool to calculate the emission factor for an electricity system Version 02 - Tool for the demonstration and assessment of additionality Version 5.2 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B.2. Justification of the choice of the methodology and why it is applicable to the project activity														
B.2.1. Is the applied methodology considered the most appropriate one?	1,2,3,4	<p><u>Corrective Action Request 4:</u></p> <p>Applicability conditions in methodology and tools referred to in PDD were not completely included and discussed.</p>	CAR4	<input checked="" type="checkbox"/>										
Fill in the required amount of sub checklists for applicability criteria as given by the methodology applied and comment at least every line answered with "No"														
<p>B.2.2. Criterion 1: Type of electricity capacity addition by grid-connected renewable power generation</p> <p>The following types are possible: hydro</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Applicability checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Criterion discussed in the PDD?</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td>Compliance provable?</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td style="text-align: center;">Yes</td> </tr> <tr> <td>Compliance verified?</td> <td style="text-align: center;">Yes</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													
Compliance verified?	Yes													

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power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit.														
<p>B.2.3. Criterion 2 (in the case of hydro plants):</p> <ul style="list-style-type: none"> -The project activity is implemented in an existing reservoir, with no change in the volume of reservoir or -The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity is greater than 4 W/m² or -The project activity results in new reservoirs and the power density of the power plant is greater than 4 W/m². 	1,2,3,4	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Applicability checklist</th> <th style="width: 30%;">Yes / No</th> </tr> </thead> <tbody> <tr> <td>Criterion discussed in the PDD?</td> <td>N/A</td> </tr> <tr> <td>Compliance provable?</td> <td>N/A</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>N/A</td> </tr> <tr> <td>Compliance verified?</td> <td>N/A</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	N/A	Compliance provable?	N/A	Evidences provided in the PDD?	N/A	Compliance verified?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	N/A													
Compliance provable?	N/A													
Evidences provided in the PDD?	N/A													
Compliance verified?	N/A													
<p>B.2.4. Criterion 4: Defined electricity grid boundaries</p>	1,2,3,4	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Applicability checklist</th> <th style="width: 30%;">Yes / No</th> </tr> </thead> <tbody> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>Yes</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													

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		Compliance verified? yes												
B.2.5. Criterion 5: Approved inclusion in other methodologies (if applied only)	1,2,3,4	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Evidences provided in the PDD?	No	Compliance verified?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	No													
Compliance provable?	No													
Evidences provided in the PDD?	No													
Compliance verified?	No													
B.2.6. Criterion 6: Exclusion of fuel switching activities	1,2,3,4	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>Yes</td> </tr> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													
Compliance verified?	Yes													
B.2.7. Criterion 7: Exclusion of biomass fired power plants	1,2,3,4	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Evidences provided in the PDD?	No	Compliance verified?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	No													
Compliance provable?	No													
Evidences provided in the PDD?	No													
Compliance verified?	No													
B.2.8. Criterion 8: Exclusion of hydro power plants that result in new reservoirs or in the increase in existing reservoirs where the power density of the power plant is less than 4 W/m2.	1,2,3,4	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>N/A</td> </tr> <tr> <td>Compliance provable?</td> <td>N/A</td> </tr> <tr> <td>Evidences provided in the PDD?</td> <td>N/A</td> </tr> <tr> <td>Compliance verified?</td> <td>N/A</td> </tr> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	N/A	Compliance provable?	N/A	Evidences provided in the PDD?	N/A	Compliance verified?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	N/A													
Compliance provable?	N/A													
Evidences provided in the PDD?	N/A													
Compliance verified?	N/A													

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B.3. Description of the sources and gases included in the project boundary														
Integrate the required amount of sub-checklists for sources and gases as given by the methodology applied and comment on at least every line answered with "No"														
B.3.1. Source: Fugitive Emissions from non-condensable gases contained in geothermal steam (geothermal power plants only) Gas(es): CO ₂ , CH ₄ Type: Project Emissions	1,2,3 ,4	<table border="1" data-bbox="1010 539 1771 715"> <thead> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Source and gas(es) discussed by the PDD?</td> <td>N/A</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>N/A</td> </tr> <tr> <td>Explanation / Justification sufficient?</td> <td>N/A</td> </tr> <tr> <td>Consistency with monitoring plan?</td> <td>N/A</td> </tr> </tbody> </table>	Boundary checklist	Yes / No	Source and gas(es) discussed by the PDD?	N/A	Inclusion / exclusion justified?	N/A	Explanation / Justification sufficient?	N/A	Consistency with monitoring plan?	N/A	☑	☑
Boundary checklist	Yes / No													
Source and gas(es) discussed by the PDD?	N/A													
Inclusion / exclusion justified?	N/A													
Explanation / Justification sufficient?	N/A													
Consistency with monitoring plan?	N/A													
B.3.2. Source: Emissions from combustion of fossil fuels required to operate the power plants (for geothermal and solar power plants only) Gas(es): CO ₂ Type: Project Emissions	1,2,3 ,4	<table border="1" data-bbox="1010 820 1771 995"> <thead> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Source and gas(es) discussed by the PDD?</td> <td>N/A</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>N/A</td> </tr> <tr> <td>Explanation / Justification sufficient?</td> <td>N/A</td> </tr> <tr> <td>Consistency with monitoring plan?</td> <td>N/A</td> </tr> </tbody> </table>	Boundary checklist	Yes / No	Source and gas(es) discussed by the PDD?	N/A	Inclusion / exclusion justified?	N/A	Explanation / Justification sufficient?	N/A	Consistency with monitoring plan?	N/A	☑	☑
Boundary checklist	Yes / No													
Source and gas(es) discussed by the PDD?	N/A													
Inclusion / exclusion justified?	N/A													
Explanation / Justification sufficient?	N/A													
Consistency with monitoring plan?	N/A													
B.3.3. Source: CO ₂ emissions from backup power generation (for all renewable energy plants)	1,2,3 ,4	<table border="1" data-bbox="1010 1101 1771 1276"> <thead> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Source and gas(es) discussed by the PDD?</td> <td>Yes</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>Yes</td> </tr> <tr> <td>Explanation / Justification sufficient?</td> <td>Yes</td> </tr> <tr> <td>Consistency with monitoring plan?</td> <td>Yes</td> </tr> </tbody> </table>	Boundary checklist	Yes / No	Source and gas(es) discussed by the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	☑	☑
Boundary checklist	Yes / No													
Source and gas(es) discussed by the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	Yes													
Consistency with monitoring plan?	Yes													
B.3.4. Source: Emissions from the reservoir (hydro power plants only) Gas(es): , CH ₄	1,2,3 ,4	<table border="1" data-bbox="1010 1347 1771 1453"> <thead> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Source and gas(es) discussed by the PDD?</td> <td>N/A</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>N/A</td> </tr> </tbody> </table>	Boundary checklist	Yes / No	Source and gas(es) discussed by the PDD?	N/A	Inclusion / exclusion justified?	N/A	☑	☑				
Boundary checklist	Yes / No													
Source and gas(es) discussed by the PDD?	N/A													
Inclusion / exclusion justified?	N/A													

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Type: Project Emissions			Explanation / Justification sufficient?	N/A		
			Consistency with monitoring plan?	N/A		
B.3.5.	Source: Emissions from electricity generation in fossil fuel fired power plants that is displaced due to the project activity Gas(es): CO ₂ Type: Baseline Emissions	1,2,3,4	Boundary checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Source and gas(es) discussed by the PDD?	Yes		
			Inclusion / exclusion justified?	Yes		
			Explanation / Justification sufficient?	Yes		
			Consistency with monitoring plan?	Yes		
B.3.6.	Source: Emissions from electricity generation in fossil fuel fired power plants of any connected electricity system Gas(es): CO ₂ Type: Baseline Emissions	1,2,3,4	Boundary checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Source and gas(es) discussed by the PDD?	Yes		
			Inclusion / exclusion justified?	Yes		
			Explanation / Justification sufficient?	Yes		
			Consistency with monitoring plan?	Yes		
B.3.7.	Source: Emissions from electricity generation in fossil fuel fired power plants of imported electricity (project electricity consumption) Gas(es): CO ₂	1,2,3,4	Boundary checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Source and gas(es) discussed by the PDD?	No		
			Inclusion / exclusion justified?	No		
			Explanation / Justification sufficient?	No		
			Consistency with monitoring plan?	No		
B.3.8.	Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?	1,2,3,4	Yes, The project electricity system is North China Power Grid and it is confirmed during site audit.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario					
B.4.1.	Is it clearly described that the baseline is represented by the combined margin of the grid the activity will be connected to?	1,2,3,4	Yes, Baseline is represented by combined margin of the grid as described in Tool to calculate emission factor for an electricity system.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.2.	In case of any modification or retrofit of existing facilities: Is data available to determine the historic production level?	1,2,3,4	It is not applicable for project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.3.	In case of any modification or retrofit of existing facilities: Have conservative assumptions been applied in order to estimate the point in time when the existing equipment needs to be replaced?	1,2,3,4	It is not applicable for project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Changes required for methodology implementation in 2 nd and 3 rd crediting periods					
B.4.4.	Has the continued validity of the baseline been correctly assessed?	1,2,3,4	It is not applicable for project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.5.	Have new relevant national and/or sectoral policies and circumstances on the baseline been taken into account (including relevant EB guidance)?	1,2,3,4	It is not applicable for project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.6.	Has the baseline been updated with new data?	1,2,3,4	It is not applicable for project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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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 realisation of the project activity based on an approved new methodology or especially on ACM0002?	1,2,3,4	Yes, Project activity is based on ACM0002 version 10 which has been approved in EB meeting 44.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.2.	In case the project activity started before the validation activity, how is demonstrated that the CDM was seriously taken into account for the decision to start the project?	1,2,3,4	Yes, The starting date of project activity is 30/03/2008, on which purchase contract of main equipments was signed. Before that date, FSR prepared in March 2008 has considered the CDM revenues in its financial analysis as it is not feasible financially due to less return on investment. Meeting of Board of directors was also convened on 05/03/2008 and decision was made to apply the project as CDM project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 1 – Identification of alternatives to the project activity					
B.5.3.	Are alternative scenarios defined that provide outputs or services comparable with the proposed CDM project activity?	1,2,3,4	Yes, All alternative scenarios has been defined and discussed in step 1.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.4.	Can be the list of alternatives considered to be complete, why? Is the scenario project activity without being registered as CDM project included?	1,2,3,4	Scenarios include project without being CDM project activity, fossil fuel power plant, power plant employing other renewable energy, and electricity provided by local power grid. It considered all possible alternatives to project activity, so it can be viewed complete.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.5.	In case several different facilities, technologies, outputs or services are present in the project, are separately alternative scenarios for each of them included? Have realistic combinations been considered as project scenario?	1,2,3,4	Not applicable as project activity only utilized wind energy to generate electricity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.5.6. Describe why the alternative scenarios are credible and realistic (technology, practices, services, status of implementation)?	1,2,3,4	Power plants burning fossil fuels are dominant power sources in host country, hydropower plants take second stake in power supply, other renewable energy sources like PV, biomass, geothermal etc. is developing sector on power supply industry. So all these alternatives are considered credible and realistic in host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.7. Do the alternative scenarios comply with mandatory laws and regulations?	1,2,3,4	Fossil fuel power plant with capacity less than 135MW is prohibited in host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.8. If a scenario does not comply with the mandatory laws and regulations, it is clearly demonstrate that the law and/or regulation is systematically enforced in the country?	1,2,3,4	Notice on Strictly Prohibiting Installation of Thermal Power Generation Units with the Capacity of 135 MW or below, issued by the General Office of the State Council, No. 2002-6.(IRL-39) The Notice was strictly implemented in host country. <u>Corrective Action Request 5:</u> Sub-step1b: conclusion “therefore (a) is not feasible” should be corrected as “(b)”.	CAR 5	<input checked="" type="checkbox"/>
Step 2 – Investment analysis (could be optional if step 3 is used)				
B.5.9. Is the analysis method identified appropriately?	1,2,3,4	It is appropriately identified that benchmark analysis method (option III) is applicable to the proposed project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.10. In case of Option I (<u>simple cost analysis</u>): Is it demonstrated that the activity and the alternatives identified in step 1 produce no economic benefits other than CDM income? Is the project activity more costly than at least one alternative?	1,2,3,4	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.11. In case of Option II (<u>investment comparison analysis</u>): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost) and reflects this indicator no	1,2,3,4	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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economical and financial attractiveness or feasibility at all?				
B.5.12. In case of use of IRR, it is clearly demonstrated why is equity of project IRR used?	1,2,3,4	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.13. In case of Option III (<u>benchmark analysis</u>): Is the most suitable financial/economic indicator clearly identified (project or equity IRR)?	1,2,3,4	Benchmark IRR (after tax) for power industry is 8% quoted from Interim Rules on Economic Assessment of Electric Power Engineering Retrofit Projects was used as indicator.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.14. How is it demonstrated that the financial/economic analysis (benchmark) represents standard returns in the market, considers the specific risk of the project type, but is not linked to the subjective profitability expectation or risk profile of a particular project developer (Option II and Option III)?	1,2,3,4	The benchmark was quoted from document "Interim Measures for Economic Evaluation on Electric Power Technical Reconstruction Project" and it is also applicable to new construction project and retrofit project in power industry according to "Measures for Feasibility Study Preparation of Wind Farm". So it can be considered standard return in the market.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.15. In case of company internal benchmark, is it clearly demonstrate that there is only one potential project developer and that the benchmark has been consistently used in the past (Option II and Option III)?	1,2,3,4	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.16. In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives (Option II) and the project activity (Option III)?	1,2,3,4	Clarification Request 3: 1. Please provide IRR calculation spreadsheet to audit team in English for review. 2. Please provide all documents quoted in PDD and some critical part in English to audit team.	CR3	<input checked="" type="checkbox"/>
B.5.17. In case of Option II or Option III: Is the	1,2,3	"Interim Measures for Economic Evaluation on Electric Power	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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analysis presented in a transparent manner including publicly available proofs for the utilized data?	,4	Technical Reconstruction Project” (IRL-15), “Measures for Feasibility Study Preparation of Wind Farm” (IRL-16) was quoted in analysis.		
B.5.18. Are all assumptions and input data clearly presented, documented, evidenced and consistent with the rest of the PDD?	1,2,3,4	Yes, Assumptions and input data are consistent with the rest of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.19. Does the sensitivity analysis shows that the conclusion of financial/economical attractiveness is robust to reasonable variations in the critical assumptions?	1,2,3,4	Yes, Sensitivity Analysis shows that with reasonable variations in the critical assumption, the financial returns does not exceed the benchmark.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.20. How is demonstrate that this variations have been adequately taken (range is adequate)?	1,2,3,4	The same variation range was adopted by official documents, Measures for Feasibility Study Preparation of Wind Farm issued by NDRC and registered CDM project in past.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 3 – Barriers analysis (is mandatory if step 2 is not used or does not shows additionality)				
B.5.21. Is a complete list of barriers developed that prevent the implementation of the proposed project and the different alternatives to occur?	1,2,3,4	It is not used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.22. Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2,3,4	It is not used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.23. Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1,2,3,4	It is not used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.24. How is confirmed that the CDM does alleviate the barriers presented?	1,2,3,4	It is not used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 4 – Common practice analysis (is to complement based on the information given in step1 and reinforce step2 / step3)				

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B.5.25. Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD?	1,2,3 ,4	Yes, Similar project activities near the region are developed as CDM project or have been registered as CDM projects have been analyzed in PDD. <u>Clarification Request 4:</u> There's any difference between the proposed project and rejected projects in the same region.	CR 4	<input checked="" type="checkbox"/>
B.5.26. If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component?	1,2,3 ,4	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6. Emissions reductions				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1,2,3 ,4	Yes, ER calculation was divided into 4 steps as per methodology required: Baseline emission, project emission, leakage and emission reduction. <u>Corrective Action Request 6:</u> Please correct methodology version number within PDD.	CAR6	<input checked="" type="checkbox"/>
B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1,2,3 ,4	Yes, Options selection has been justified and it is in line with site situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.6.1.3. Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,2,3,4	Yes, Electricity consumption by project was included in BE calculation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.4. Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,2,3,4	Yes, Formulae are correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.5. Is the choice of options to determine the emissions factor (OM, BM) justified in a suitable and transparent manner?	1,2,3,4	Yes, Options were correctly chosen to determine the OM/BM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.6. Are the six steps as defined per the "Tool for calculation of emission factor for electrical systems" correctly applied by the project participants?	1,2,3,4	Yes, Six steps as defined per "Tool for calculation of emission factor for electrical system" have been correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.7. In case of alternative weighing factors for the Combined Margin: Is the quantification of the alternative weighing factor justified in a suitable and transparent manner?	1,2,3,4	Weighing factor for OM & BM is 0.75 and 0.25 respectively.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.8. In case of alternative weighing factors for the Combined Margin: Is the guidance for the PDD concerning the acceptability of alternative weights considered in the discussion?	1,2,3,4	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.9. Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,2,3,4	Yes, Leakage emission is considered as zero as per meth.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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tored?					
Tool to calculate project or leakage CO2 emissions from fossil fuel combustion					
B.6.1.10. Is the formula required for the determination of CO2 project emissions from fossil fuel combustion correctly presented, enabling a complete identification of parameter to be used and / or monitored	1,2,3,4	There is no back up power for proposed project and it is confirmed by audit team during site audit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
B.6.1.11. Is option A (preferred approach) or option B chosen for the determination of the CO2 emission coefficient COEF _{i,y} and is COEF _{i,y} correctly determined?	1,2,3,4	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
B.6.1.12. Are formulae required for the determination of emission reductions correctly presented?	1,2,3,4	Yes, The formulae required for the determination of emission reductions is correctly presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
B.6.2. Data and parameters that are available at validation					
B.6.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1,2,3,4	Corrective Action Request 7: List of parameters presented in section B.2 of the PDD is not complete. Please see below.	CAR 7	<input checked="" type="checkbox"/>	
B.6.2.2. Is the choice of ex-ante or ex-post vintage of OM and BM factors clearly specified in the PDD?	1,2,3,4	Ex-ante vintage of OM/BM was chosen.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fill in the required amount of sub checklists for monitoring parameter and comment any line answered with "No"					
B.6.2.3. Parameter Title: GWP _{CH4} Global warming potential of methane valid for the relevant	1,2,3,4	Data Checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Title in line with methodology?	N/A		
		Data unit correctly expressed?	N/A		

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commitment period (tCO2/tCH4)		<table border="1"> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </table>	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A								
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Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
<p>B.6.2.4. Parameter Title: EG_{historical} (only applicable to modification/retrofit of an existing grid-connected renewable power plant/unit)</p> <p>Average of historical electricity delivered by the existing facility to the grid (MWh)</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
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Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
<p>B.6.2.5. Parameter Title: DATE_{BaselineRetrofit} (only applicable to modification/retrofit of an existing grid-connected renewable power plant/unit)</p> <p>Point in time when the existing equipment would need to be replaced in the absence of the project activity</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
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Data unit correctly expressed?	N/A																					
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Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
B.6.2.6. Parameter Title: EF _{Res} (only applicable to	1,2,3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		

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hydro-power plants with reservoir) Default emission factor for emissions from reservoirs (kgCO ₂ e/MWh)	,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A		
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Appropriate description of parameter?	N/A																					
Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
B.6.2.7. Parameter Title: CAP _{BL} (W) (only applicable to modification/retrofit of an existing grid-connected renewable power plant/unit) Installed capacity of the hydro power plant before the implementation of the project activity. For new hydro power plants, this value is zero.	1,2,3 ,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
B.6.2.8. Parameter Title: A _{BL} (only applicable to hydropower plant projects with reservoir) Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m ²). For new reservoirs, this value is zero (m ²).	1,2,3 ,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
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		Measurement method correctly described?	N/A																				
B.6.2.9. Parameter Title: Emission factor of the grid (EF _{CM} in tCO ₂ /MWh)	1,2,3 ,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>No</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>No</td> </tr> <tr> <td>Source clearly referenced?</td> <td>No</td> </tr> <tr> <td>Correct value provided?</td> <td>No</td> </tr> <tr> <td>Has this value been verified?</td> <td>No</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>No</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>No</td> </tr> </tbody> </table>		Data Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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B.6.2.10. Parameter Title: Operating margin (EF _{OM} in tCO ₂ /MWh) emission factor of the grid	1,2,3 ,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>No</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description?</td> <td>No</td> </tr> <tr> <td>Source clearly referenced?</td> <td>No</td> </tr> <tr> <td>Correct value provided?</td> <td>No</td> </tr> <tr> <td>Has this value been verified?</td> <td>No</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>No</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>No</td> </tr> </tbody> </table>		Data Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	No																						
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						
B.6.2.11. Parameter Title: Build margin (EF _{BM} in tCO ₂ /MWh) emission factor of the grid	1,2,3 ,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>No</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>No</td> </tr> <tr> <td>Source clearly referenced?</td> <td>No</td> </tr> </tbody> </table>		Data Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
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Measurement method correctly described?	No																					
<p>B.6.2.12. Parameter Title: $FC_{i,m,y}$, $FC_{i,y}$, $FC_{i,j,y}$, $FC_{i,k,y}$, $FC_{i,n,y}$ and $FC_{i,n,h}$ Amount of fossil fuel type i consumed by power plant / unit m,j,k or n (or in the project electricity system in case of $FC_{i,y}$) in year y or hour h (mass or volume unit)</p>	1,2,3,4	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> </table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
<p>B.6.2.13. Parameter Title: $NCV_{i,y}$ Net calorific value (energy content) of fossil fuel type i in year y (GJ / mass or volume unit)</p>	1,2,3,4	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> </table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
<p>B.6.2.14. Parameter Title: $EF_{CO2,i,y}$ and $EF_{CO2,m,i,y}$ CO2 emission factor of fossil fuel type i in year y (tCO2/GJ)</p>	1,2,3,4	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> </table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
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Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
<p>B.6.2.15. Parameter Title: $EG_{m,y}$, EG_y, $EG_{j,y}$, $EG_{k,y}$ and $EG_{n,h}$ Net electricity generated and delivered to the grid by power plant / unit m,j,k or n (or in the project electricity system in case of EG_y) in year y or hour h (MWh)</p>	1,2,3,4	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>Yes</td></tr> <tr><td>Data unit correctly expressed?</td><td>Yes</td></tr> <tr><td>Appropriate description of parameter?</td><td>Yes</td></tr> <tr><td>Source clearly referenced?</td><td>Yes</td></tr> <tr><td>Correct value provided?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Choice of data correctly justified?</td><td>Yes</td></tr> <tr><td>Measurement method correctly described?</td><td>Yes</td></tr> </table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
<p>B.6.2.16. Parameter Title: $EG_{P,j,h}$ Electricity displaced by the project activity in hour h of year y (in MWh) (only applicable for the dispatch data OM)</p>	1,2,3,4	<table border="1"> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Choice of data correctly justified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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B.6.2.17. Parameter Title: $\eta_{m,y}$ Average net energy conversion efficiency of power unit m in year y	1,2,3,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
Parameter Title: A_{PJ} (only applicable to hydropower plant projects with reservoir) Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full.	1,2,3,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	Choice of data correctly justified?	N/A	Measurement method correctly described?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Source clearly referenced?	N/A																					
Correct value provided?	N/A																					
Has this value been verified?	N/A																					
Choice of data correctly justified?	N/A																					
Measurement method correctly described?	N/A																					
B.6.2.18. Parameter Title: fraction of time with low costs /must run plant at the margin (for simple adjusted OM only)	1,2,3,4	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> </tbody> </table>	Data Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided?	N/A	Has this value been verified?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
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		Choice of data correctly justified?	N/A	
		Measurement method correctly described?	N/A	
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?	1,2,3,4	Yes, Ex-ante emission factor calculation of grid was employed, project emission and leakage is view as zero, emission reduction of the proposed project equals to baseline emission. The projection was also used for future monitoring.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1,2,3,4	Yes, GHG calculations documented and provided to audit team.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.3. Is the calculation of the operating margin and build margin emission factors documented electronically in a spreadsheet with the relevant information as defined per the "Tool for calculation of emission factor for electrical systems"? Has this spreadsheet been submitted to the validation team?	1,2,3,4	Yes, The spreadsheet has been submitted to the validation report. It is included in Annex 3.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.4. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1,2,3,4	Yes, Data is consistent within PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4. Summary of the ex-ante estimation of emission reductions				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1,2,3,4	As per requirement in ACM0002, project emission was view as zero for proposed wind power project; it is obviously that project will result in less GHG emission than baseline scenario did.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1,2,3,4	Yes, The required table has been correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1,2,3,4	Yes, It is in line with time schedule for the project's implementation and the indicated crediting period and situation was confirmed by audit team during site audit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1,2,3,4	It is consistent within PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																
B.7. Application of the monitoring methodology and description of the monitoring plan																				
<i>B.7.1. Data and parameters monitored</i>																				
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?	1,2,3,4	<u>Corrective Action Request 8:</u> List of monitoring parameters is not complete in section B.7.1 of the PDD. Please complete all the parameters with regard to the requirements of the applied methodology.	CAR 8	<input checked="" type="checkbox"/>																
Integrate the required amount of sub-checklists for monitoring parameter and comment on any line answered with "No"																				
B.7.1.2. Parameter Title: EGy Electricity supplied by the project activity to the grid (in MWh)	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>No</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>No</td> </tr> <tr> <td>Source clearly referenced?</td> <td>No</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>No</td> </tr> <tr> <td>Has this value been verified?</td> <td>No</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>No</td> </tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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<p>B.7.1.3. Parameter Title: TEG_y Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y (in MWh).</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> <tr> <td>Correct reference to standards?</td> <td>N/A</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures described?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures appropriate?</td> <td>N/A</td> </tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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<p>B.7.1.4. Parameter Title: EG_{existing,y} Actual, measured electricity supplied to the grid by existing units in year y (MWh)</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> <tr> <td>Correct reference to standards?</td> <td>N/A</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>N/A</td> </tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
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QA/QC procedures appropriate?	N/A																											
<p>B.7.1.5. Parameter Title: $EF_{grid,CM,y}$</p> <p>Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO2/MWh)</p>	1,2,3,4	<p>Not applicable, as this protocol refers to the ex-ante determination of CM.</p> <table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> <tr><td>Indication of accuracy provided?</td><td>N/A</td></tr> <tr><td>QA/QC procedures described?</td><td>N/A</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
<p>B.7.1.6. Parameter Title: $PEFC_{j,y}$</p> <p>CO2 emissions from fossil fuel combustion in process j during the year y (tCO2/yr). Calculated as per the latest version of the “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion” where j stands for the processes required for the operation of the solar/geothermal power plant and/or backup power generation</p>	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> <tr><td>Indication of accuracy provided?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
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<p>B.7.1.7. Parameter Title: Cap_{PJ} (only applicable to hydropower plant projects)</p> <p>Installed capacity of the hydro power plant after the implementation of the project activity (W).</p>	1,2,3,4	<table border="1"> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> <tr> <td>Correct reference to standards?</td> <td>N/A</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures described?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures appropriate?</td> <td>N/A</td> </tr> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
<p>B.7.1.8. Parameter Title: A_{PJ} (only applicable to hydropower plant projects with reservoir)</p> <p>Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²).</p>	1,2,3,4	<table border="1"> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> <tr> <td>Correct reference to standards?</td> <td>N/A</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures described?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures appropriate?</td> <td>N/A</td> </tr> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
<p>B.7.1.9. Parameter Title: w_{Main,CO_2}</p> <p>Average mass fraction of CO₂ in the</p>	1,2,3,4	<table border="1"> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </table>	Monitoring Checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																						
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QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
B.7.1.10. Parameter Title: w_{Main,CH_4} Average mass fraction of CH ₄ in the produced steam (tCH ₄ /t steam). for geothermal projects only)	1,2,3 ,4	<table border="1"> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> <tr><td>Indication of accuracy provided?</td><td>N/A</td></tr> <tr><td>QA/QC procedures described?</td><td>N/A</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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QA/QC procedures described?	N/A																											
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B.7.1.11. Parameter Title: $M_{S,y}$ Quantity of steam produced during the year y.	1,2,3 ,4	<table border="1"> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
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Parameters related to the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion"																												
B.7.1.12. Parameter Title: Quantity of fuel type i combusted in process j during the year y $FC_{i,j,y}$	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> <tr><td>Indication of accuracy provided?</td><td>N/A</td></tr> <tr><td>QA/QC procedures described?</td><td>N/A</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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B.7.1.13. Parameter title: Weighted average mass fraction of carbon in fuel type i in year y $W_{C,i,y}$	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																
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QA/QC procedures appropriate?	N/A																											
B.7.1.14. Parameter title: Weighted average density of fuel type i in year y $\rho_{i,y}$	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> <tr><td>Indication of accuracy provided?</td><td>N/A</td></tr> <tr><td>QA/QC procedures described?</td><td>N/A</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Title in line with methodology?	N/A																											
Data unit correctly expressed?	N/A																											
Appropriate description of parameter?	N/A																											
Source clearly referenced?	N/A																											
Correct value provided for estimation?	N/A																											
Has this value been verified?	N/A																											
Measurement method correctly described?	N/A																											
Correct reference to standards?	N/A																											
Indication of accuracy provided?	N/A																											
QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
B.7.1.15. Parameter title: Weighted average net calorific value of fuel type i in year y $NCV_{i,y}$	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>N/A</td></tr> <tr><td>Data unit correctly expressed?</td><td>N/A</td></tr> <tr><td>Appropriate description of parameter?</td><td>N/A</td></tr> <tr><td>Source clearly referenced?</td><td>N/A</td></tr> <tr><td>Correct value provided for estimation?</td><td>N/A</td></tr> <tr><td>Has this value been verified?</td><td>N/A</td></tr> <tr><td>Measurement method correctly described?</td><td>N/A</td></tr> <tr><td>Correct reference to standards?</td><td>N/A</td></tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N/A																											
Data unit correctly expressed?	N/A																											
Appropriate description of parameter?	N/A																											
Source clearly referenced?	N/A																											
Correct value provided for estimation?	N/A																											
Has this value been verified?	N/A																											
Measurement method correctly described?	N/A																											
Correct reference to standards?	N/A																											

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD																								
		Indication of accuracy provided?	N/A																									
		QA/QC procedures described?	N/A																									
		QA/QC procedures appropriate?	N/A																									
B.7.1.16. Parameter title: Weighted average CO2 emission factor of fuel type i in year y EF _{CO2,i,y}	1,2,3,4	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>N/A</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>N/A</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>N/A</td> </tr> <tr> <td>Source clearly referenced?</td> <td>N/A</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>N/A</td> </tr> <tr> <td>Has this value been verified?</td> <td>N/A</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>N/A</td> </tr> <tr> <td>Correct reference to standards?</td> <td>N/A</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures described?</td> <td>N/A</td> </tr> <tr> <td>QA/QC procedures appropriate?</td> <td>N/A</td> </tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N/A																											
Data unit correctly expressed?	N/A																											
Appropriate description of parameter?	N/A																											
Source clearly referenced?	N/A																											
Correct value provided for estimation?	N/A																											
Has this value been verified?	N/A																											
Measurement method correctly described?	N/A																											
Correct reference to standards?	N/A																											
Indication of accuracy provided?	N/A																											
QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
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?	1,2,3,4	Yes, It is clearly described in this section in PDD and it is in compliance with the site situation during site audit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,2,3,4	Yes, The Project manager has monitoring staff which are responsible to collect data and archive data..	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1,2,3,4	Corrective Action Request 9: Please include all meters in diagram which were employed in the project.	CAR 9	<input checked="" type="checkbox"/>																								
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better under-	1,2,3,4	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								

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standing of the envisioned monitoring provisions?					
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?	1,2,3 ,4	Corrective Action Request 10: Please keep the date consistent with that in section A.1.	CAR 10	<input checked="" type="checkbox"/>
B.8.2.	Is this consistent with the time line of the PDD history?	1,2,3 ,4	See CAR10.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	1,2,3 ,4	Yes, Mr. Zhang Shuwei from Gold China Consultancy International is responsible for the application of the baseline and monitoring methodology and situation was confirmed by audit team during site audit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.4.	Is information provided whether this person / entity is also considered a project participant?	1,2,3 ,4	Yes, It has been confirmed that person/entity is not the project participant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C. Duration of the project activity / crediting period					
C.1. Duration of the project activity					
C.1.1.	Are the project's starting date and operational lifetime clearly defined and reasonable?	1,2,3 ,4,13	Clarification Request 5: Please give explanation of start time of project activity.	CR5	<input checked="" type="checkbox"/>
C.2. Choice of the crediting period and related information					
C.2.1.	Is the assumed crediting time clearly de-	1,2,3	Yes,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
fined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?		,4,13	Renewable crediting period was employed for project and starting time of first crediting period is reasonable.		
D. Environmental impacts					
D.1. Documentation on the analysis of the environmental impacts, including trans-boundary impacts					
D.1.1.	Has the analysis of the environmental impacts of the project activity been sufficiently described?	1,2,3 ,4,9, 10	Yes, The summary of EIA was presented in PDD sufficiently.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1,2,3 ,4,9, 10	Yes, Environmental Impact Assessment is required by host country for proposed project, and EIA has been approved by local authority.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.3.	Will the project create any adverse environmental effects?	1,2,3 ,4,9, 10	No, As the impact during construction period will be minimized during operation period as sufficient measures would be adopted, so it is considered that project will create no adverse environmental effects.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.4.	Were trans-boundary environmental impacts identified in the analysis?	1,2,3 ,4,9, 10	Yes, Project is located in hinterland in Hebei province, so there is no trans-boundary impact applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 Party					
D.2.1.	Have the identified environmental impacts been addressed in the project design suf-	1,2,3 ,4,9,	Yes,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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ficiently?	10	Environmental impacts have been discussed sufficiently in section D of the PDD.		
D.2.2. Does the project comply with environmental legislation in the host country?	1,2,3,4,9,10	Yes, Project met the environmental legislation in the host country and was approved by local authority.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E. Stakeholders' comments				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.1.1. Have relevant stakeholders been consulted?	1,19,20,21	Yes, Consultation meeting was convened on 10/03/2008 by project owner, and relative stakeholders were invited to comment on proposed project. Questionnaires were also used to consult the relevant stakeholders.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,19,20,21	Yes, Notice of stakeholders meeting was used to invite relative stakeholders to the proposed project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	1,19,20,21	Yes, There are no regulations/laws that require stakeholder consultation process.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1,19,20,21	Yes, It is described in PDD completely and transparently.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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E.2. Summary of the comments received				
E.2.1. Is a summary of the stakeholder comments received provided?	1,19,20,21	It is provided in PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stakeholder comments received?	1,19,20,21	Yes, Proper measures were adopted by project owner to avoid noise during construction period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F. Annexes 1 - 4				
Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	1,	Yes, It is consistent with that in section A.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties presented?	1	Yes, They are presented in this section.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	1,25,26	Yes, There is no public funding from Annex-I country involved in the proposed project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.4. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of	1,25,26	Yes, It is affirmed in this section.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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ODA?					
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 sections of the PDD?	1,2,3	Yes, It is consistent with that in PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.6.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1,2,3	Yes, Notification on Determining Baseline Emission Factor of China's Grid for the North China Power Grid (NCPG) issued by NDRC, China's DNA on Dec. 30, 2008. The document is available.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.7.	Does the additional information substantiate / support statements given in other sections of the PDD?	1,2,3	Yes, Information provided in this section supports statements in PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Annex 5: Monitoring information					
F.1.8.	If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1,	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.9.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.10.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1	Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
<p>Proposed project will install 67 sets of wind turbine generators with each 1500kW capacity, annual electricity delivered to North China Power Grid would be 241.70GWh which will result in GHG emission reduction about 254,960tCO₂ annually.</p> <p>Scenario in absence of project activity is imported electricity from NCPG which also be viewed as baseline scenario.</p> <p><u>Clarification Request 1:</u></p> <p>Please include annual operation hours in this section.</p>	A2.1	In the 2 nd paragraph of this section, the annual operation hours were added as “equivalent to 2405 operating hours with full capacity”.	<p>The relevant information has been added in revised PDD.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request 1:</u></p> <ol style="list-style-type: none"> 1. Please include Zhangjiakou city in A4.1.3. 2. Please use English name in the third map. 	A4.1.1	Zhangjiakou city was added as required. Map was replaced with English version.	<p>They have been corrected in revised PDD.</p> <p><input checked="" type="checkbox"/></p>

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<p>1500kW wind turbine generator employed in project activity is manufactured by domestic supplier, Dongfang Steam Turbine Manufacturer which leads the technical edge in wind turbine generator production in host country. Grid connection system and measurement equipment also represent the good practice in recent years.</p> <p><u>Corrective Action Request 2:</u></p> <ol style="list-style-type: none"> 1. Please use the international unit for technical variables in table 1. 2. Please include unit for “rated voltage”. 3. Page 4, last paragraph: “the project is expected to operate fully for 22 years from the beginning of 2010”. The statement should be revised as “from the beginning of 2011” after progress confirmation during site audit. 	<p>A4.3.1</p>	<ol style="list-style-type: none"> 1. It was done. 2. The unit (V) was added for “rated voltage”. 3. Revised to “from the beginning of 2011” 	<p>CAR 2: The missing information has been added in the updated PDD.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request 2:</u></p> <ol style="list-style-type: none"> 1. Compare 1784719tCO₂ in text with 1650582 tCO₂ in table, which one is correct? 	<p>A4.4.2</p>	<p>The latter is correct and the text was revised correspondingly.</p>	<p>It has been corrected in revised PDD.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request 3:</u></p> <p>Please keep title of methodology consistent with that published on UNFCCC website.</p>	<p>B1.1</p>	<p>Changed to “Approved consolidated baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” (Version 10)”, consistent with that published on UNFCCC website.</p>	<p>The complete title of the applied methodology has been applied in revised PDD.</p> <p><input checked="" type="checkbox"/></p>

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<p><u>Corrective Action Request 4:</u> Applicability conditions in methodology and tools referred to in PDD were not completely included and discussed.</p>	B2.1	The discussion on the applicable conditions and corresponding project attributes were added in the beginning of Section B.2.	Applicability conditions in methodology and tools referred to in PDD have been included and discussed in revised PDD. <input checked="" type="checkbox"/>
<p>Notice on Strictly Prohibiting Installation of Thermal Power Generation Units with the Capacity of 135 MW or below, issued by the General Office of the State Council, No. 2002-6. The Notice was strictly implemented in host country.</p> <p><u>Corrective Action Request 5:</u> Sub-step1b: conclusion “therefore (a) is not feasible” should be corrected as “(b)”.</p>	B5.8	Revision was done.	It has been corrected in revised PDD. <input checked="" type="checkbox"/>
<p><u>Clarification Request 3:</u></p> <ol style="list-style-type: none"> 1. Please provide IRR calculation spreadsheet to audit team in English for review. 2. Please provide all documents quoted in PDD and some critical part in English to audit team. 	B5.16	The package including IRR calculation sheets, quoted documents in PDD etc has been submitted to the audit team of DOE.	IRR calculation sheet and documents quoted in PDD have been provided to audit team. <input checked="" type="checkbox"/>

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<p>ER calculation was divided into 4 steps as per methodology required: Baseline emission, project emission, leakage and emission reduction.</p> <p><u>Corrective Action Request 6:</u> Please correct methodology version number within PDD.</p>	B6.1.1	The version number was changed to 10, latest version published at UNFCCC website.	It has been corrected in revised PDD. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request 7:</u> List of validated parameters presented in section B.2 of the PDD is not complete.</p>	B6.2.1	EF _{CM} , EF _{OM} , EF _{BM} were added to be complete.	Variables have been included in revised PDD. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request 8:</u> List is of monitoring parameters presented in section B.7.1 of the PDD not complete.</p>	B7.1.1	EGy was added to be complete.	It has been included in revised PDD. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request 9:</u> Please include all meters in diagram which were employed in the project.</p>	B7.2.3	It was added and modified in Figure 2 (Page 9) to illustrate the location of the meters.	Figure 2 in section B.3 in PDD was also employed as meters installation diagram. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request 10:</u> Please keep the date consistent with that in section A.1.</p>	B8.1	It was done.	It has been corrected in revised PDD. <input checked="" type="checkbox"/>
<p><u>Clarification Request 4:</u> There's any difference between the proposed project and rejected projects in the same region.</p>		There are no wind power project rejected by now in Hebei province, China	<input checked="" type="checkbox"/> The issue has been closed

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Clarification Request 5: Please give explanation of start time of project activity.	C1.1	“(The date when the purchase contract of WTGs signed)” added to explain the choice of start time of the project activity.	It has been added in revised PDD. <input checked="" type="checkbox"/>
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Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)


Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-

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Annex 2: Information Reference List

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Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
1.	06/03/2009	PDD “CECIC HKE Zhangbei Lvnaobao Wind Power Project”, Version 01	Gold China Consultancy International Co., Ltd	PDD for GSP
2.		Approved consolidated baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 10	UNFCCC	Sectoral Scope 1
3.		Tool to calculate the emission factor for an electricity system, version 02	UNFCCC	
4.		Tool for the demonstration and assessment of additionality, version 05.2	UNFCCC	
5.	08/04/2008	Participant list of on-site interviews	TÜV SÜD	
6.	04/09/2008	On-site interviews conducted by TÜV SÜD. Validation Team: Sun Baoqi Jiangsu TÜV Product Service, Wuxi Branch Wang Chunyun Jiangsu TÜV Product Service, Wuxi Branch Patty Tian Jiangsu TÜV Product Service, Guangzhou Branch Interviewed Persons: Ms. Chen Dongjuan CECIC HKE Wind Power CO.,LTD Mr. Yao xi CECIC HKE Wind Power CO.,LTD Mr. Ma Guojing CECIC HKE Wind Power CO.,LTD Mr. Zhang Shuwei Gold China Consultancy International	TÜV SÜD	
7.	03/2008	Feasibility Study Report “CECIC HKE Zhangbei Lvnaobao Wind Power Project”	China Power Construction Engineering Consultant Company	IRR input data source
8.	17/07/2008	Approval of Feasibility Study Report	National Development and Reform Committee	
9.	15/10/2007	Environment Impact Assessment report	Hebei Province Environment Science	

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Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
			Institute.	
10.	19/11/2007	Approval of EIA	Hebei Province Environment Protection Bureau	
11.	20/03/2008	Agreement of CDM project consultant service	CECIC HKE Wind Power CO.,LTD & GoldChina Consultancy International Co., Ltd	
12.	05/03/2008	Decision of Board of Director Meeting	CECIC HKE Wind Power CO.,LTD	Early CDM consideration
13.	30/03/2008	Purchase Contract of wind turbine	CECIC HKE Wind Power CO.,LTD & Dongfang Electric Group Dongfang Steam Turbine Co., Ltd.	Project commencement date
14.	18/08/2008	Approval of civil engineering construction	Zhangbei county construction bureau	
15.	10/09/2002	Interim Measures for Economic Evaluation on Electric Power Technical Reconstruction Project, Document No. GuoDianFa [2002]623	State Power Corporation	
16.	/2005	Measures for Feasibility Study Report Preparation of Wind Farm	National Development and Reform Committee	
17.	28/02/2008	Wind Power Statistic report in 2007 in China	Prepared by Mr. Shi Pengfei	
18.	11/11/2008	Summary of CDM projects in Hebei province	CDM project office in Hebei province	
19.	15/02/2008	Notice of stakeholder meeting	CECIC HKE Wind Power CO.,LTD	

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Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
20.	10/03/2008	Minutes of stakeholder Meeting	CECIC HKE Wind Power CO.,LTD	
21.	10/03/2008	Questionnaire of stakeholders	CECIC HKE Wind Power CO.,LTD	
22.	08/03/2008	Support letter of Lvnaobao wind power project	People's Government of Zhangbei County	
23.	03/2008	Project progress timetable		In FSR
24.	06/03/2008	Financial analysis spreadsheet	Gold China Consultancy International Co., Ltd	
25.	03/02/2009	Business license of CECIC HKE Wind Power CO.,LTD	Hebei Province Industrial and Commercial Administration Bureau	
26.	10/2007	Letter of loan proposal for Lvnaobao wind farm project	China Construction Bank Co., Ltd Beijing Branch	
27.	30/03/2008	Training plan and content for operation and maintenance cost in purchase contract of wind turbine	Dongfang Electric Group Dongfang Steam Turbine Co., Ltd.	
28.	15/01/2008	Training certificate of wind power technology	Zhejiang Yunda Wind Power Engineering Co., Ltd	
29.		Grid operation permit for electrician	National Power Supervision Committee	
30.	11/03/2008	Assessment Report of grid connection of Lvnaobao wind power project	North China Power Grid Co., Ltd.	
31.	21/05/2008	Approval letter of grid connection of Lvnaobao wind power project	State Power Grid Company	

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Ref. No.	Issuance and/or submission date(dd/mm/yyyy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
32.	25/01/2008	Approval of land utilization of Lvnaobao wind power project	Hebei Province National Soil Source Bureau	
33.		Wind power projects information in Zhangbei County	http://cdm.unfccc.int	
34.	10/2008	Layout of Lvnaobao wind power plant	Xinjiang Water Conservancy & Hydropower Survey and Design Institute	
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