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Validation Report

Carbon Resource Management Ltd.

VALIDATION OF THE CDM-PROJECT: "ZHEJIANG CIXI WIND FARM PROJECT" IN CHINA

REPORT NO. 1055098

2008, <u>October May 0624</u>

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





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Subject: Validation of a CDM Project						
Accredited TÜV SÜD Unit:			TÜV SÜD Contract Partner:			
TÜV SÜD Industrie Ser Certification Body "clima Westendstr. 199 - 8068 Federal Republic of Ger	vice GmbH ate and energy" 6 Munich rmany		Jiangsu TÜV Prod 16 F West Buildin No. 775 Huaihai R P.R. China	luct Service Shanghai Branch g, New Hualian Mansion toad, Shanghai		
Client:			Project Site(s):			
Carbon Resource Management Ltd. Beijing Representative Office			15 km to the north People's Republic	15 km to the northeast of Cixi City, Zhejiang Province, People's Republic of China.		
Suite 1203, Air China P Chaoyang District, Beiji	laza, No. 36 Xiac ng 100027, China	oyun Road, a				
Project Title:		Zhejiang Cixi	Wind Farm Project			
Applied Methodology / Version: ACM0002 ver		sion 06	Scope(s): 1			
First PDD Version:			Final PDD versio	n:		
Date of issuance:	2007-06-05		Date of issuance:	2008-03-06		
Version No.:	2.3		Version No.:	3.4		
Starting Date of GSP	2007-06-12					
Estimated Annual Emi	ission Reductio	n:	99 086 tons CO _{2e}			
Assessment Team Lea	ader:		Further Assessm	ent Team Members:		
Dr. Sven Kolmetz			Cuiyun Zhang			
			Sebastian Randig			
Summary of the Valida	ation Opinion:					

The review of the project design documentation 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 will recommend the project for registration by the CDM Executive Board in case 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.

The review of the project design documentation 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.

Validation of the CDM Project: Zhejiang Cixi Wind Farm Project

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Abbreviations

ACM	Approved Consolidated Methodology
AM	Approved Methodology
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
GHG	Greenhouse gas(es)
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
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 for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM-EB. The ultimate decision on the registration of a proposed project activity rests at the CDM Executive Board and the Parties involved.

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

Zhejiang Cixi Wind Farm 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 the case of CDM project activities the scope is set by:

- > The Kyoto Protocol, in particular § 12
- 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 by the EB published under <u>http://cdm.unfccc.int</u>
- Specific guidance by the EB published under <u>http://cdm.unfccc.int</u>
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodlogy (CDM-NM)
- The applied approved methodology
- > The technical environment of the project (technical scope)
- Internal and national standards on monitoring and QA/QC
- > Technical guideline and information on best practice

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

Once TÜV SÜD receives a first PDD version, it is made publicly available on the internet at TÜV SÜD's webpage as well as on the UNFCCC CDM-webpages for starting a 30 day global stakeholder consultation process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP will be repeated) and the final PDD will form the basis for the final evaluation as presented by this report. Information on the first and on the final PDD version is presented at page 1.

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

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2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed a "cook-book" for methodology-specific checklists and protocol based on the templates presented by the Validation and Verification Manual. 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 will document how a particular requirement has been validated and the result of the validation.

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

Validation Protocol Table 1: Conformity of Project Activity and PDD									
Checklist Topic / Question	Reference	Comments	PDD in GSP	Final PDD					
The checklist is organised in sec- tions following the arrangement of the applied PDD version. Each section is then further sub- divided. The low- est level consti- tutes a checklist question / crite- rion.	Gives ref- erence to documents where the answer to the check- list question or item is found in case the comment refers to documents other than the PDD.	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-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any Re- quest has to be substanti- ated within this column	Conclusions are presented based on the assessment of the first PDD ver- sion. This is either acceptable based on evidence pro- vided (🗹), or a Corrective Action Request (CAR) due to non- compliance with the checklist question (See below). Clari- fication Request (CR) is used when the validation team has identified a need for further clarification.	Conclusions are presented in the same manner based on the as- sessment of the final PDD version.					

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



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Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests							
Clarifications and cor- rective action re- quests	Ref. to table 1	Summary of project owner response	Validation team conclusion				
If the conclusions from table 1 are either a Cor- rective Action Request or a Clarification Re- quest, these should be listed in this section.	Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.	The responses given by the client or other project participants during the communica- tions with the valida- tion team should be summarised in this section.	This section should summarise the validation team's re- sponses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".				

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 cor- rective action re- quests	Id. of CAR/CR 1	Explanation of the Conclusion for Denial					
If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.	Identifier of the Re- quest.	This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion.					

2.1 Appointment of the Assessment Team

According to the technical scopes 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 ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

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

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

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):



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Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host coun- try experi- ence
Sven Kolmetz	ATL	A	A	Ŋ
Sebastian Randig	GHG-A	V	V	
Cuiyun Zhang	GHG-A	V	V	V

Dr. Sven Kolmetz is physicist and deputy head at the department "TÜV Carbon Management Service" located in the head office of TÜV Süddeutschland in Munich. Furthermore he is officially authorized expert in the verification of GHG emissions in the framework of the European Emission Trading Scheme. Before entering 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.

Sebastian Randig is a GHG auditor for environmental management systems at the "Carbon Management Service" in the head office of TÜV Industrie Service GmbH, Germany. He holds a M.Sc. degree in Renewable Energy and has gathered experience in planning and installing renewable energy installations before joining TÜV SÜD. He has received training in the CDM validation process and participated in several CDM project assessments.

Cuiyun Zhang is an auditor 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 project assessments.

2.2 Review of Documents

The first PDD version submitted by the client and additional background documents related to the project design and baseline were reviewed 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

In the period of June 22, 2007 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

Name	Organisation
Mr. Xiaoguo Ma	Cixi Yangtze River Wind Power Co., Ltd.
Ms. Yanxia Yao	Carbon Resource Management

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2.4 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD's positive conclusion on the project design. The Corrective Action Requests and Clarification Requests 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 summarised in chapter 3 below and documented in more detail in the validation protocol in annex 1.

2.5 Internal Quality Control

As final step of a validation the validation report and the protocol have to undergo and internal quality control procedure by the Certification Body "climate and energy", i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD's Certification Body whether a project will be submitted for requesting registration by the EB or not. Page 9 of 12



3 SUMMARY OF FINDINGS

As informed above all findings are summarized in table 2 of the attached validation protocol.

History of the validation process

The audit team has been provided with a draft PDD in June 2007. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version submitted in October 2007 serves as the basis for the assessment presented herewith. 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 to achieve a reduction of anthropogenic GHG emissions by sources and to contribute to sustainable development.

Project description

Zhejiang Cixi Wind Farm lies 15 km to the northeast of Cixi City, Zhejiang Province of People's Republic of China. The objective of the proposed project is to utilize wind resources for electricity generation through the installation and operation of 49.5 MW wind farm. The supplied power is expected to be 105,850 MWh per year. The electricity generated from the project will be transmitted to the 220 kV Shuiyun substation of the East China Power Grid (ECPG) via a 110 kV transmission line. The proposed project activity will achieve obvious greenhouse gas (GHG) emission reductions by avoiding CO_2 emissions. The annual average estimated emission reduction over the first crediting period is 99,086 tCO₂e.

Findings

In total the assessment team expressed 3 Clarification Request and 4 Corrective Action Requests.

The required documents (English version of the IRR calculation excel sheet, benchmark) have been submitted to the DOE and other formal aspects of the proposed project (project location, emission reduction etc.) have been verified according to the PDD. Hence, most of the CAR and CR were resolved very easily.

The required formal changes have been made:

- The specific location of the project [CAR 1] and the starting date of the project [CAR 4] for the project have been revised in the final version of the PDD.
- The emission factors and CER calculation according to the methodology in B.6.2 are verified and revised in detail [CAR 2, 3].

Other issues for implementation schedule of the project were added [CR1], questions for the IRR calculation for the project was finely explained [CR2] and the accuracy of the meters used, calibration standard applied in this project were clearly presented [CR3].

Since all the open questions have been closed the PDD is in compliance with the CDM requirements.

Baseline

For the BM calculation the PDD adopts modified methods agreed by the EB for the approved methodologies AM0005 and AMS I.D. because plant specific data are not available in China. The emission factor of the thermal power plants is 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



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published by the Chinese DNA. The new thermal capacity installation that exceeds 20% in the last years, for which data are available, is finally assessed with this factor.

The baseline calculation is based on the published OM/BM calculation process issued by NDRC (China DNA). Moreover, the wrong emission factors of coke and refinery gas used in the published values, the imported electricity from connected grids as well are corrected with the values quoted from the IPCC 2006 and the published data released by State Grid Company.

The result of the OM calculation is slightly higher compared to the published values, amounting 0.9591 tCO2/MWh but is found to be correct. BM calculation is identical to NDRC published values. Due to the slightly higher OM the EF value is slightly higher too.

Additionality

The additionality of the project was checked carefully. In doing so the assessment team has put the main focus on the following issues.

The assessment team has reviewed various proofs for the early consideration of the project (IRL32). A news article dated March 10 2005 announced the construction of Cixi wind farm project mentioning the developers aim to apply for CDM. Though this article quotes the project developer stating that he seriously considers applying the CDM for the project development, it could not be accepted as serious CDM consideration, because the need for the CDM could not be justified due to a financial indicator reaching above the benchmark at that time. The FSR as prepared in November 2005 showed positive economic returns of the project activity (IRL6) but it had to be revised in September 2006, before making the actual decision to implement the project, as prices for wind power equipment had risen over 2006 (IRL35). The reassessment of the financial indicator revealed an IRR of only 7% - which is 1% below the benchmark threshold (IRL 28). With this low economic indicator it was not possible to obtain the bank loan, as could be evidenced by a rejection letter by Sanxia Financial Corporation, dated 10 October 2006. Two weeks later the ERPA with Carbon Resource Management was signed (26 October 2006), paving the way for the loan approval on 3 November 2006, by the same Sanxia Financial Corporation. The loan approval letter mentions the PPs promise to apply for the CDM support as reason to grant the loan. Due to the sequence of events related to the bank loan approval we are confident that the submitted documents regarding early CDM consideration can be considered as being appropriate for the following reasons: we have checked the Sanxia Financial Corporations business licence and it permits the entity to "to undertake loans and investments"; further we have compared the actual loan contract and it also supports the argumentation, as the loan was granted by Sanxia Financial Corporation.

In step one of the application of the tool for the demonstration and assessment of additionality (hereafter: additionality tool) it is concluded that there exist alternatives to the proposed project activity, the additionality criterion is fulfilled. Step two of the additionality tool, investment analysis, describes in detail that the proposed project is not financially attractive without CER revenues. The assessment team has checked all sources of the IRR calculation, as presented in Sub-step 2c. in the PDD. We can confirm that the key figures applied in the analysis are appropriate; the data is all taken from the revised economic analysis dated September 2006. The specific investment of about 10 Mio. RMB/MW capacity is almost precisely matching the average specific investment of other CDM wind farms in China of the same size range (10.3 Mio. RMB/MW) and is just slightly above the overall average investment amounting 9.3 Mio. RMB/MW. The estimated supplied power is derived from the locally measured wind date obtained in the years 1971 to 2004, and is thus assumed to be precise if not conservative as the FSR concludes that "from the local measured data (from 1971 to 2004), the average wind speed has a tendency of decreasing after year 2000". Regarding the tariff we can confirm that a rather high and thus in CDM context conservative assumption was taken, as a statistical survey of all registered CDM wind power projects in China reveals (maximum tariff 0.7 RMB/kWh - minimum tariff 0.22 RMB/kWh, average tariff amounting 0.533 RMB/kWh).

Further the calculation spreadsheet and the source of the benchmark was checked. The benchmark of 8% is frequently used in the Chinese power sector (IRL15). A sensitivity analysis is performed, by

Validation of the CDM Project: Zhejiang Cixi Wind Farm Project



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taking into account 10% variations in total investment costs, O&M costs, on-grid tariff and power output. Variation in O&M costs have a very low impact on the IRR result and can thus be neglected in this context. However a decrease of about 8% in total investment would lead to an IRR of around 8%. Given projects history it can reasonably assumed that this could not be considered a likely scenario, as the PPs experience was that prices had been increasing before. An increase of about 10% in power generation and grid tariff would also lead to an IRR of 8%. As described above, the power output of the wind farm can be assumed to be precise if not overestimated, given the observation that wind speeds at the project site were gradually decreasing since 2000. An increase in tariff is also not assumed to be a likely scenario as the assumed tariff is rather high and could thus be considered unlikely to be still higher (see above, in fact it is higher than all other tariffs of CDM wind farms in China). To conclude the sensitivity analysis it can be stated that under no realistically assumed variations of variables the benchmark of 8% is met. We thus conclude the project is financially unattractive without CER revenues.

Step 3 of the additionality tool was erased compared to previous versions of the PDD, which is in compliance with the additionality tool. In step 4, common practice analysis, 9 other projects were assessed, all located in the same East China Power Grid region. Of all considered projects only two, the Zhejiang Cangnan Wind Farm and Zhejiang Linhai Wind Farm were developed without CDM support, but under a difference policy scheme in the late nineties. Five of the other projects were already registered under the CDM and two more are currently applying for the CDM support. We thus conclude that wind power projects of a similar scale located within East China Power Grid are not common practice.

To conclude the additionality assessment we can state that, according to all the documents we have reviewed, we can confirm the additionality of the project based on the available information.

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4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

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

The following table presents all key information on this process:

webpage: <u>http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=3182&Ebene1_ID=26&Ebene2_ID=955&mod</u> <u>e=1</u>						
Starting date of the global sta	Starting date of the global stakeholder consultation process:					
2007-06-12						
Comment submitted by:	Issues raised:					
none	-					
Response by TÜV SÜD:						
-						

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5 VALIDATION OPINION

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

Zhejiang Cixi Wind Farm Project.

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence 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 hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

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Dr. Nobs

Certification Body "climate and energy" TÜV SÜD Industrie Service GmbH Assessment Team Leader



Annex 1: Validation Protocol

Project Title: Zhejiang Cixi Windfarm Project Date of Completion: May 06October 24, 2008 Number of Pages: 36

Table 1 Conformity of Project Activity and PDD

	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD		
A. Gene	A. General description of project activity						
A.1. T	A.1. Title of the project activity						
A.1.1.	Does the used project title clearly enable to identify the unique CDM activity?	1	The project is titled with the name of the project location and the energy source of the project. Hence, it can be clearly identified.	Ø	Ŋ		
A.1.2.	Are there any indication concerning the revision number and the date of the revision?	1	The available PDD for document review and on-site assessment is indicated as 2.3 version and completed on June 5 th , 2007.	V	Ø		
A.1.3.	Is this consistent with the time line of the project's history?	1	This is the first and only one at validator's desk while preparing the protocol. Moreover, the PDD with the same version is used for GSP since June 12 th , 2007.		Ø		
A.2. D	escription of the project activity						
A.2.1.	Is the description delivering a transparent overview of the project activities?	1, 6	The proposed project utilizes wind resources for electricity gener- ation through the installation and operation of 49.5 MW wind farm at Cixi City, Zhejiang Province. The generated power will be fed to the Zhejiang Provincial Power Grid, an integral part of the East China Power Grid, to displace the electricity mainly supplied by coal-fire plants. During the on-site audit, the project activities de- scribed in the PDD have been proven to be right.	Ø	Ø		
A.2.2.	What proofs are available demonstrating that the project description is in com- pliance with the actual situation or plan- ning?	1, 6- 11, 21- 24	 The following data deliver evidences for the project activity: Purchasing contract of turbine which is countersigned with the manufacture, Nantong CASC Wanyuan Acciona Wind Turbines Manufacture Co., Ltd. Feasibility Study Report (approved by Zhejiang Development and Reform Commission on Dec., 31st, 2005) Environmental Impact Assessment (approved by the EPB 				





	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			of Zhejiang Province on June 20 th , 2006)		
			 Initial design report of connection system to grid (assessed by Zhejiang Power Company on Dec. 29th, 2005) 		
A.2.3.	Is the information provided by these proofs consistent with the information pro- vided by the PDD?	1, 16- 19	The required data are delivered in the PDD and have been evi- denced during the audit. The statistical background has been re- viewed with official documentation (China Electric Power Year- books 2002-2006, China Energy Statistical Yearbooks 2000-2006 and the IPCC 2006).	Ø	Ø
A.2.4.	Is all information presented consistent with details provided by further chapters of the PDD?	1	Yes. All the information, including installed capacity, electricity fed to grid, annual emission reduction, in this chapter is consistent to the following chapters and annexes.	V	Ø
A.3. Project participants					
A.3.1.	Is the form required for the indication of project participants correctly applied?	1	Yes. The required form is applied correctly.	Ø	V
A.3.2.	Is the participation of the listed entities or Parties confirmed by each one of them?	1	Carbon Resource Management Ltd., the investor party and CDM developer in this project, has reached an agreement with Cixi Yangtze River Wind Power Co., Ltd., the project owner. The related information has been verified on site.	Open Issue	Ø
			Open issue: Pls. deliver the LoA issued by P.R. China and United Kingdom to- gether with MoC countersigned by two parties to DOE before rais- ing the request of registration.		
A.3.3.	Is all information on participants / Parties provided in consistency with details pro- vided by further chapters of the PDD (in particular annex 1)?	1	The information of participants is consistent through the entire PDD.	Ø	V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
А.4. Те	echnical description of the project activ	vity			
A.4.1.	Location of the project activity				
A.4.1.1.	Does the information provided on the lo- cation of the project activity allow for a	1, 6	The proposed project locates in Xinpu Town and Fuhai Town, Cixi City, Zhejiang Province, China.	CAR 1	V
	clear identification of the site(s)?		Corrective Action Request 1:		
			The geographical coordinator of project site shall be precise in second unit and please deliver the related evidence to auditor.		
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, li- censes, contracts etc.)?	1, 6	As mentioned in this protocol above, the approvals of feasibility report and EIA of the proposed project were issued by the Chi- nese authorized offices respectively. Moreover, the construction has been launched at the end of 2006 and the purchasing con- tract of turbines has been signed. The risk of not implementing this project at the defined site deems to be very low.	Ø	Ŋ
A.4.2.	Category(ies) of project activity				
A.4.2.1.	To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	1, 2	Being a renewable power plant, the project activity falls into scope 1, which has been clearly identified in the PDD.	Ø	V
A.4.3.	Technology to be employed by the proje	ect acti	vity		
A.4.3.1.	Does the technical design of the project activity reflect current good practices?	1, 11	According to the suggestion from the feasibility study report, the 1500 kW turbine is the most appropriate one to utilize the wind re- source at site. Hence, in this project, 33 turbines with capacity of 1500 kW each are planed to be installed. Through bidding, Nan- tong CASC Wanyuan Acciona Wind Turbine Manufacture is cho- sen to be the supplier. Introduced by project owner, such type of turbine is developed from the Spain design and most of the manu- facture processes are regulated by the Spain EHN. The same type has been successfully installed and put in operation at the		Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			wind farms in Europe.		
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transpa- rent input/ information to evaluate its im- pact on the greenhouse gas balance?	1, 6	Because the project activity comprises the use of wind power for the substitution of grid supplied electricity mainly from coal fired plant, doubtlessly, this technology will reduce GHG emissions significantly.		Ø
A.4.3.3.	Does the implementation of the project ac- tivity require any technology transfer from annex-I-countries to the host country(ies)?	1, 11	Since the turbine is developed by Spain EHN, though they are as- sembly in China, it's no doubt that the technology transfer from annex I countries is occurred in this case.	Ŋ	V
A.4.3.4.	Is the technology implemented by the project activity environmentally safe?	1, 6, 21	Being a project utilizing wind resource for electricity generation, it will not cause any environmental problem.		V
A.4.3.5.	Is the information provided in compliance with actual situation or planning?	1, 6	Yes, the evidence provided by the feasibility report and the turbine purchasing contract delivers the same information as that from the PDD.	N	V
A.4.3.6.	Does the project use state of the art tech- nology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 6	As introduced by the project owner, the technology is developed based on the EHN technology, which has been successfully im- plemented in European wind farms for years. At present, the do- mestic-made turbine at 1500~ 2000 kW level is still at the testing stage and not as mature as the ones from Europe. Hence, the technology applied to the proposed project present the state of the art technology.	Ŋ	Ŋ
A.4.3.7.	Is the project technology likely to be subs- tituted by other or more efficient technolo- gies within the project period?	1	We do not expect that there will be a substitution because the tur- bines and the other equipment will be newly commissioned and installed. The life cycle of a wind turbine is under normal circums- tances longer than the project period.	Ŋ	Ŋ
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, 12	Allowing for the fact that the wind power plants are still new busi- ness and it's the first time for the project owner to use the suppli- er's turbine, extensive initial training is needed to guarantee safe operation during the life time.	Ŋ	V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.3.9.	Is information available on the demand and requirements for training and main- tenance?	1, 12	According to the contract, the turbine manufacture is responsible for providing on-site-training of maintenance and operation. At the time of on site audit, no training has been provided, because the recruiting of operators has not been finished. However, the train- ing schedule fixed both by turbine supplier and project owner has been provided to auditor.	Ø	Ø
A.4.3.10.	Is a schedule available for the implemen- tation of the project and are there any risks for delays?	1	The construction and installation plan is introduced by the project owner on site. At the site visiting time, the construction had been started. However, since the project is still at an early stage, addi- tional information shall be delivered.	CR 1	Ø
			Clarification Request 1:		
			The time schedule of the implementation of the project should be included into the PDD.		
A.4.4.	Estimated amount of emission reduction	ns over	the chosen crediting period		
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?	1, 2	Yes, the required form is correctly applied. It includes the years in crediting period and estimated annual & total emission reduction. All the figures are clearly presented in the table.	V	V
A.4.4.2.	Are the figures provided consistent with other data presented in the PDD?	1, 16- 19	As has been verified on site, the yearly emission reduction will reach 99,086 tCO ₂ which is a result of emission factor (0.9361) multiplied by the annual electricity supplied to the grid (105,850MWh). These figures are quoted through the final PDD.	CAR 2	V
			<u>Corrective Action Request 2:</u> The GSP version of the PDD has referred to old emission factors, published in 2006. The statistics yearbooks of 2006 have been published. According to the methodology, the latest data shall be used. Pls. kindly upgrade the baseline calculation accordingly.		



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD		
A.4.5.	Public funding of the project activity						
A.4.5.1.	Is the information provided on public fund- ing provided in compliance with the actual situation or planning as available by the project participants?	1, 7	According to the approved feasibility report, there's no public fund- ing from Annex I parties. Project owner's capital and commercial loan from commercial bank compose the investment of this project.	Ŋ	Ŋ		
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	Yes, the same statements are presented in A.4.5 of and Annex 2 of PDD.	Ŋ	Ŋ		
B. Application of a baseline and monitoring methodology							
B.1. Tit	le and reference of the approved base	line an	d monitoring methodology				
B.1.1.	Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 2	The ACM0002 methodology under version 06 issued on May 19 th , 2006 is applied to this project. It is clearly indicated in chapter B.1. of the PDD.	Ø	Ø		
B.1.2.	Is the applied version the most recent one and / or is this version still applicable?	2	The 6 th version of ACM002 is the latest one.	Ø	V		
B.2. Ju	stification of the choice of the method	ologya	and why it is applicable to the project activity				
B.2.1.	Is the applied methodology considered the most appropriate one?	1, 2	The project activity fulfills the criteria of ACM0002: - utilization of wind sources;	V	Ø		
			 not involving switching from fossil fuels to renewable ener- gy at project site; 				
			 the geographic and system boundaries of East China Grid can be clearly identified and the information of this grid is available. 				
			Thus, the baseline methodology is the most applicable for this				



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			project among the existing approved baseline methodologies.		
B.2.2.	Criterion 1: Type of capacity addition by renewable energy	1, 2	Applicability checklistYes / NoCriterion discussed in the PDD?YesCompliance provable?YesEvidences provided in the PDD?YesCompliance verified?Yes		Ø
B.2.3.	Criterion 2: Exclusion of fuel switching activities	1, 2	Applicability checklistYes / NoCriterion discussed in the PDD?YesCompliance provable?YesEvidences provided in the PDD?YesCompliance verified?Yes	Ø	Ø
B.2.4.	Criterion 3: Defined electricity grid boundaries	1, 2	Applicability checklistYes / NoCriterion discussed in the PDD?YesCompliance provable?YesEvidences provided in the PDD?YesCompliance verified?Yes		V
B.2.5.	Criterion 4: Approved inclusion in other methodolo- gies (if applied only)	1, 2	Among the methodologies, ACM0002 is the only one applied to this project activity. Thus, this section is not applicable.	Ø	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD	
B.3. Description of the sources and gases included in the project boundary							
Integrate wered wit	Integrate the required amount of sub-checklists for sources and gases as given by the methodology applied and comment on at lea wered with "No"					ie ans-	
B.3.1.	Source: Fugitive Emissions from non-condensable gases (geothermal activities only) Gas(es): CO ₂ , CH ₄ Type: Project Emissions	1, 2	Boundary checklistYes / NSource 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.As a wind farm project, this section needs not be considered.	o ered.	Ŋ	Ŋ	
B.3.2.	Source: Emissions from combustion of fossil fuels (geothermal activities only) Gas(es): CO ₂ Type: Project Emissions	1, 2	Boundary checklistYes / NSource 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.As a wind farm project, this section needs not be considered.	o 	Ŋ	Ŋ	
B.3.3.	Source: Emissions from the reservoir (new hydroe- lectric activities only) Gas(es): CO ₂ , CH ₄ Type: Project Emissions	1, 2	Boundary checklistYes / NSource 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.As a wind farm project, this section needs not be considered.	o 	V	Ø	
B.3.4.	Source: Emissions from electricity generation in	1, 2	Boundary checklist Yes / N	D	Ø	V	



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	fossil fuel fired power plants of the project electricity system Gas(es): CO ₂ Type: Baseline Emissions		Source and gas(es) discussed by the PDD?YesInclusion / exclusion justified?YesExplanation / Justification sufficient?YesConsistency with monitoring plan?Yes		
B.3.5.	Source: Emissions from electricity generation in fossil fuel fired power plants of any con- nected electricity system Gas(es): CO ₂ Type: Baseline Emissions	1, 2	Boundary checklistYes / NoSource and gas(es) discussed by the PDD?YesInclusion / exclusion justified?YesExplanation / Justification sufficient?YesConsistency with monitoring plan?Yes	R	Ŋ
B.3.6.	Source: Emissions from electricity generation in fossil fuel fired power plants of imported electricity Gas(es): CO ₂ Type: Baseline Emissions	1, 2	Boundary checklistYes / NoSource and gas(es) discussed by the PDD?YesInclusion / exclusion justified?YesExplanation / Justification sufficient?YesConsistency with monitoring plan?N.A.Referring to the Annex 3, the CO2 emission from imported electricity has been considered while calculating the EF. However, because the ex-ante approach is chosen for this project, the monitoring of this source is not applicable.	Ŋ	Ŋ
B.3.7.	Do the spatial and technological bounda- ries as verified on-site comply with the discussion provided by the PDD?	1, 2	The boundary of the regional grid defined by the NDRC is adopted in this case for the baseline emission calculation. In this case, the connected electricity system is East China Grid.	V	V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD		
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	It's clearly stated in the PDD that the baseline is: electricity delivered to the grid by the proposed project would have otherwise been generated by fossil-fuel-fired plants which are connected to the East China Grid.	Ø	Ø		
B.4.2.	In case of any modification or retrofit of existing facilities: Is data available to determine the historic production level?	1, 2	There's no modification of an existing facility, so this section is not applicable.	Ø	Ø		
B.4.3.	In case of any modification or retrofit of existing facilities: Have conservative assumptions been ap- plied in order to estimate the point in time when the existing equipment needs to be replaced?	1, 2	There's no modification of an existing facility, so this section is not applicable.	Ø	Ŋ		
B.5. Do in	escription of how the anthropogenic en the absence of the registered CDM pro	nissior oject ad	ns of GHG by sources are reduced below those that would ctivity (assessment and demonstration of additionality):	have occ	urred		
B.5.1.	Is evidence provided, that the project's starting date is after Jan 01, 2000.	1, 6, 20, 28	The proposed project will start the crediting period in 2008, there- fore, this section is not applicable.	V	V		
B.5.2.	Is evidence provided, that CDM has been considered seriously in the decision to proceed with the project activity?	1, 6, 20, 28	In the early 2005, the project owner has been informed about the CDM scheme. In a interviewing by Zhejiang Daily on Mar. 10, 2005, Mr. Ma, the manager of Cixi Yangtze River Wind Power Co., Ltd. clearly stated that they will apply for CDM registration while developing the wind power plant.	Ø	V		
B.5.3.	Have realistic and credible alternatives been identified providing comparable out-	1, 6, 20,	The following baseline scenarios are discussed: - Business as usual (grid electricity supply from the East	Ø	V		



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	puts or services? (step 1a)	28	 China Grid) Installation of a coal-fired power plant with similar capacity Installation of another renewable power plant with similar capacity The project itself without consideration of the CDM These scenarios are the only ones that are making sense. 		
B.5.4.	Is the project activity without CDM in- cluded in these alternatives? (step 1a)	1, 6, 20, 28	Yes, the activity without CDM is considered as an alternative scenario.	Ŋ	V
B.5.5.	Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations? (step 1b)	1, 6, 20, 28	The relative regulations and laws are clearly discussed for each scenario one by one in the PDD. According to Chinese power regulations, construction of a coal-fired power plant of less than 135 MW are prohibited in the areas covered by large grids, the alternative of installation of a coal-fired power plant with similar capacity is not a realistic and credible alternative.		
B.5.6.	In case the PDD argues that specific laws are not enforced in the country or region: Is evidence available concerning that statement? (step 1b)	1, 6, 20, 28	All the laws quoted in the PDD are enforced in this project; hence, this section is not applicable.	Ø	Ŋ
B.5.7.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 6, 20, 28	3 analysis methods are provided according to the additionality tool (version 3). Because the proposed project generates economic benefits through the sales of electricity other than CDM revenue, therefore, the Option I (simple cost analysis) can't be taken. Moreover, the Option II (investment comparison analysis) only applies to projects where the alternative should be similar invest- ment projects, however, in this case, the baseline scenario is East China Grid; hence, Option II can't be adopted either. Option III (benchmark analysis) is the only applicable one.		



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.5.8.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produc- es no economic benefits other than CDM income?	1, 3	As described above, Option III is chosen for the investment analy- sis. So this section is not applicable.	Ŋ	Ŋ
B.5.9.	In case of Option II (investment compari- son analysis): Is the most suitable finan- cial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 3	As described above, Option III is chosen for the investment analy- sis. This section is not applicable.	Ø	V
B.5.10.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 6, 20, 28	The IRR results with / without CDM revenue are clearly demon- strated in Table 4 of the PDD. The spreadsheet in English has been verified by the auditor on site. Most of the data and formula used for calculation are given by the approved feasibility report.	CR 2	V
			Clarification Request 2:		
			Referring to the approved feasibility report, the static investment is about 440 RMB million which is much lower than the one used for the IRR calculation (521.63 million RMB). Pls. deliver the evi- dence on such increase.		
B.5.11.	In case of Option II or Option III: Is the calculation of financial figures for this indi- cator correctly done for all alternatives and the project activity?	1, 6, 20, 28	The auditor has verified the calculation process and quoted data under the scenario of the project activity without CDM revenue and the project itself.	Ø	Ŋ
B.5.12.	In case of Option II or Option III: Is the analysis presented in a transparent man- ner including publicly available proofs for the utilized data?	1, 6, 20, 28	All the utilized data were taken from the approved report of the feasibility besides the issue raised from CR 2. Moreover, a sensitive analysis is demonstrated in the PDD. For the purpose of conservativeness, besides the total investment and tariff which have also been analyzed in the approved feasibility study report with the range of -10% to +10%, the annual operation and maintenance cost is also considered. Referring to the approved feasibility study report, the annul power generation is given	See CR 2	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			based on the statistics of wind source in local area (from 1970 to 2005), hence, the auditor agrees that the figure of this parameter is relative stable. The evidences have been verified by the audit team.		
B.5.13.	In case of applying step 3 (barrier analy- sis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1, 3	It is expected that implementing the project has to face the in- vestment barriers. Other alternatives are all ruled out in previous chapters in PDD. The discussion of whether these barriers will prevent the implementation of proposed project activity and base- line scenario has been demonstrated at Step 3 of the PDD.	Ø	V
B.5.14.	In case of applying step 3 (barrier analy- sis): Is transparent and documented evi- dence provided on the existence and sig- nificance of these barriers?	1, 3	Doubtless, while implementing the project activity, the project owner will encounter both investment and technical barriers. Compared with installing a coal-fire power plant, the low operation time and high risk of operation weaken the loan repayment capa- bility. On the other hand, more operation and maintenance prob- lems are foreseen. These difficulties have been assessed by the audit team on site.	Ø	Ø
B.5.15.	In case of applying step 3 (barrier analy- sis): Is it transparently shown that the ex- ecution of at least one of the alternatives is not prevented by the identified barriers?	1, 3	The barriers will not prevent the execution of only one scenario: business as usual (electricity from grid which is supplied mainly from coal-fire plants). Therefore, this scenario is chosen to be the baseline scenario.	Ŋ	Ŋ
B.5.16.	Have other activities in the host country / region similar to the project activity been identified and are these activities appro- priately analyzed by the PDD (step 4a)?	1	All the similar wind power plants within Zhejiang Province are completely listed in Table 5 of the PDD. The difference and com- mon points to the proposed project are demonstrated in the PDD.	Ŋ	Ŋ
B.5.17.	If similar activities are occurring: Is it demonstrated that in spite of these simi- larities the project activity would not be implemented without the CDM component (step 4b)?	1	It has clearly presented in the table that besides the first 2 projects which obtained a very high electricity tariff in 90s; newly-built project is also facing the financial problems. Obviously, the CER revenue is one of the most important reasons to help the project owner decide establishing a wind power plant.	Ø	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.5.18.	Is it appropriately explained how the ap- proval of the project activity will help to overcome the economic and financial hur- dles or other identified barriers?	1	The CDM registration will help to overcome the financial risks.	Ø	V
B.6. EI	missions reductions				
B.6.1.	Explanation of methodological choices				
B.6.1.1.	Is it explained how the procedures pro- vided in the methodology are applied by the proposed project activity?	1, 2	The ex-ante approach is chosen for the baseline emission calcula- tion.	V	V
B.6.1.2.	Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation veri- fied on-site?	1, 2	Yes, the justification has been fully discussed and demonstrated in the PDD based on the options provided from the latest metho- dology. All the data are referring to the latest available data when the PDD was prepared and public for the global stakeholder process, such as, Chinese Electric Power Yearbook (2003-2006), the China Energy Statistical Yearbook (2000-2006). However, pls. kindly refer to the CAR 2 for updating the emission factor of de- fined grid.	See CAR 2	
B.6.1.3.	Are the formulae required for the determi- nation of project emissions correctly pre- sented, enabling a complete identification of parameter to be used and / or moni- tored?	1, 2	According to the methodology, the project participants need not to consider the project emissions.	Ø	Ø
B.6.1.4.	Are the formulae required for the determi- nation of baseline emissions correctly presented, enabling a complete identifica- tion of parameter to be used and / or mo- nitored?	1, 2	All the formulae used are in compliance with the one in the de- fined methodology version 06.	Ø	Ø
B.6.1.5.	Is the choice of options to determine the	1, 2	The justification is demonstrated in the PDD. Referring to the data	$\overline{\mathbf{A}}$	\checkmark



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	emissions factor (OM, BM) justified in a suitable and transparent manner?		from the China ElectricYearbook, the Simple OM deems to be the only approach for the OM calculation. Moreover, the approved deviation is implemented for the BM estimation. All the relative evidence is verified by the auditor on site.		
B.6.1.6.	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	The default weights for wind farm project (W_{OM} =0.75; W_{BM} =0.25) defined in methodology (06 ver.) are used.	Ø	Ø
B.6.1.7.	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 dis- cussion?	1, 2	See B.6.1.6. of protocol.	Ø	Ø
B.6.1.8.	Are the formulae required for the determi- nation of leakage emissions correctly pre- sented, enabling a complete identification of parameter to be used and / or moni- tored?	1, 2	According to the methodology, consideration of leakages is not required.	Ø	Ŋ
B.6.1.9.	Are formulae required for the determina- tion of emission reductions correctly pre- sented?	1, 2	Yes. The formulae in the PDD are clearly presented for the de- termination of the emission reduction. As the project emission and leakages are both zero, the emission reduction is equal to the baseline emission.	Ø	Ŋ
B.6.2.	Data and parameters that are available	at vali	dation		
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 ap-	1, 2	All the parameters used for emission reduction calculation are verified by the audit team on site. However, in section B.6.2. of the PDD, some indicators are missing.	CAR 3	
	plied methodology?		Corrective Action Request 3:		
			Please refer to the B.6.2.3 - B.6.2.13 of the protocol, the men- tioned indicators shall be included into the PDD. The data and re-		



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
			lated sources have been assessed on site.			
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	The ex-ante approach is chosen, which is clear the PDD.	rly stated in B.6.3 of	Ø	Ø
Fill in the I	required amount of sub checklists for monitor	ing para	ameter and comment any line answered with "No)"		
B.6.2.3.	Parameter Title: Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modifica- tion activities)	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?The project activity is a newly installation of wir hence this parameter is not applicable.	Yes / No N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.	Ø	V
B.6.2.4.	Parameter Title: Emission factor of the grid (CM)	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?	Yes / No Yes Yes Yes No No No Yes	See CAR 3	
B.6.2.5.	Parameter Title: Operating margin (OM) emission factor of	1, 2	Data Checklist	Yes / No	See CAR 3	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
B.6.2.6.	the grid Parameter Title: Build margin (BM) emission factor of the grid	1, 2	Title in line with methodology? Data unit correctly expressed? Appropriate description? Source clearly referenced? Correct value provided? Has this value been verified? Choice of data correctly justified? Measurement method correctly described? Data Checklist Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter? Source clearly referenced? Correct value provided? Has this value been verified? Measurement method correctly described?	Yes Yes Yes No No No Yes Yes Yes Yes Yes No No No Yes	See CAR-3	
B.6.2.7.	Parameter Title: fuel consumption of each power source	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?	Yes / No Yes Yes Yes Yes Yes Yes Yes Yes		Ŋ



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
B.6.2.8.	Parameter Title: emission coefficient of each fuel	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?	Yes / No Yes Yes Yes Yes Yes Yes Yes Yes	Ø	Ø
B.6.2.9.	Parameter Title: electricity generation of each power source	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?As mentioned in the PDD, because the data on plants built most recently are not available, an a is implemented. Hence, the fuel consumption for commercially available and the share of increment pacity of fuel-fired power in the whole increment pacity are used as parameters for BM calculation are verified during the on site assessment.	Yes / No N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.		



CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.6.2.10. Parameter Title: surface area of full reservoir level (for new hydroelectric activities only)	1, 2	Data ChecklistYes / NoTitle 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.The project activity is a wind farm, hence, this parameter needs not be considered.	5	
B.6.2.11. Parameter Title: fraction of time with low costs /must run plant at the margin (for simple adjusted OM only)	1, 2	Data ChecklistYes / NoTitle 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.For this project, the simple OM is adopted as the most appropriapproach, hence, this parameter is not applicable.	ate	
B.6.2.12. Parameter Title: electricity imports	1, 2	Data ChecklistYes / NoTitle in line with methodology?NoData unit correctly expressed?No	See CAR 3	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
			Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?	No Yes Yes Yes Yes Yes		
P6212	Parameter Title:	1.2	Pls. kindly refer to CAR 3.			EX .
D.0.2.13.	CO ₂ emission coefficient of fuels used in connected grids	1, 2	Data ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided?Has this value been verified?Choice of data correctly justified?Measurement method correctly described?	Yes / No Yes Yes Yes Yes Yes Yes Yes		V
B.6.3.	Ex-ante calculation of emission reduction	ons				
B.6.3.1.	Is the projection based on the same procedures as used for future monitoring?	1, 2, 16	Yes, the emission reduction is determined by d project emission and leakage from baseline em formulae are also the basic for the future monit	educting the ission. The same oring.	V	Ø
B.6.3.2.	Are the GHG calculations documented in a complete and transparent manner?	1, 2, 16	Double checked with Annex 3 of the PDD, the tare adopted in a complete and transparent mar	formulae and data	Ŋ	Ø
B.6.3.3.	Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1, 2, 16	The data in this section are consistent with those of the PDD.	se in other chapters	V	Ø
B.6.4.	Summary of the ex-ante estimation of e	emissio	on reductions			



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.6.4.1.	Will the project result in fewer GHG emissions than the baseline scenario?	1, 2, 16	Demonstrated in the PDD, being a wind farm project, the GHG emission reduction is the same as the baseline emissions.	V	$\mathbf{\Sigma}$
B.6.4.2.	Is the form/table required for the indication of projected emission reductions correctly applied?	1, 2, 16	Yes, the required form is used which includes the emission of project activity, leakage, baseline emission and estimated overall emission reduction.	Ø	Ø
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, 16	The life time of the project is expected to be 20 years and the re- newable crediting period of max 7 years with potential for 2 re- newals is chosen. Therefore, the yearly emission reduction and total emission reduction indicated in table B.6.4. in the PDD are correct.	Ŋ	R
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, 16	Yes, the results are same to the ones in A.4.4, but more concrete processes are given.	V	Ŋ
B.7. Aj	pplication of the monitoring methodolo	ogy an	d description of the monitoring plan		
B.7.1.	Data and parameters monitored				
B.7.1.1.	Is the list of parameters presented by chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1, 2	Because the ex-ante approach is adopted, the net electricity fed to the grid is required to be monitored. This parameter has been in- cluded in table B.7.1 in the PDD.	Ø	Ø
Integrate t	he required amount of sub-checklists for mor	nitoring	parameter and comment on any line answered with "No"		
B.7.1.2.	Parameter Title: Electricity supplied to the grid	1, 2	Monitoring ChecklistYes / NoTitle in line with methodology?YesData unit correctly expressed?YesAppropriate description of parameter?NoSource clearly referenced?NoCorrect value provided for estimation?Yes	CR 3	Ø



CHEC	CKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
B.7.1.3. Para Quar (for g	ameter Title: antity of steam produced geothermal projects only)	1, 2	Has this value been verified? Measurement method correctly described? Correct reference to standards? Indication of accuracy provided? QA/QC procedures described? QA/QC procedures appropriate? Clarification Request 3: - Pls. add the accuracy of meters into the - The exact calibration standard shall be composited? Monitoring Checklist Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter? Source clearly referenced? Correct value provided for estimation? Has this value been verified? Measurement method correctly described? Correct reference to standards? Indication of accuracy provided? QA/QC procedures appropriate? This parameter needs not be considered, becauwind form project	Yes No No No Yes No PDD. clearly presented Yes / No N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.	I. ☑	
B.7.1.4. Para Frac (for g	ameter Title: ction of CO_2 in steam produced geothermal projects only)	1, 2	Monitoring Checklist Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter?	Yes / No N.A. N.A. N.A.		V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.1.5.	Parameter Title: Fraction of CH₄ in steam produced (for geothermal projects only)	1, 2	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.Indication of accuracy provided?N.A.QA/QC procedures described?N.A.QA/QC procedures appropriate?N.A.This parameter needs not be considered, because the activity is a wind farm project.Monitoring ChecklistYes / NoTitle 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.QA/QC procedures described?N.A.Data unit correctly expressed?N.A.Appropriate description of parameter?N.A.Correct value provided for estimation?N.A.Measurement method correctly described?N.A.Measurement method correctly described?N.A.QA/QC procedures described?N.A.QA/QC procedures described?N.A.QA/QC procedures appropriate?N.A.The project activity is implementing wind for power generation, hence, this parameter is not applicable		
B.7.1.6.	Parameter Title: Quantity of steam generated during well testing (for geothermal projects only)	1, 2	Monitoring ChecklistYes / NoTitle in line with methodology?N.A.Data unit correctly expressed?N.A.	Ø	Ø



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			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.The project activity is implementing wind for power generation, hence, this parameter is not applicable.		
B.7.1.7.	Parameter Title: Fraction of CO ₂ in steam during well testing (for geothermal projects only)	1, 2	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. This parameter needs not be considered, because the activity is a wind farm project.		
B.7.1.8.	Parameter Title: Fraction of CH₄ in steam during well testing	1, 2	Monitoring ChecklistYes / NoTitle in line with methodology?N.A.		V



(for geothermal projects only) 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. Measurement method correctly described? N.A. QA/QC procedures described? N.A. Appropriate description of parameter? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Appropriate description of parameter? N.A. Appropriate description of parameter? N.A.	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
B.7.1.9. Parameter Title: CO2 emission coefficient of fuel used by the geothermal plant (for geothermal projects only) 1, 2 Monitoring Checklist Yes / No 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. Correct reference to standards? N.A. Indication of accuracy provided? N.A. QA/QC procedures described? N.A. QA/QC procedures appropriate? N.A. This parameter needs not be considered, because the activity is a	(for geothermal projects only)		Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided for estimation?Has this value been verified?Measurement method correctly described?Correct reference to standards?Indication of accuracy provided?QA/QC procedures described?QA/QC procedures appropriate?This parameter needs not be considered, becawind farm project.	N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A.		
wind farm project.	B.7.1.9. Parameter Title: CO ₂ emission coefficient of fuel used by the geothermal plant (for geothermal projects only)	1, 2	Monitoring ChecklistTitle in line with methodology?Data unit correctly expressed?Appropriate description of parameter?Source clearly referenced?Correct value provided for estimation?Has this value been verified?Measurement method correctly described?Correct reference to standards?Indication of accuracy provided?QA/QC procedures described?Chis parameter needs not be considered, becawind farm project.	Yes / No N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.	V	



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.2.1.	Is the operational and management structure clearly described and in compliance with the envisoned situation?	1, 2	A CDM group is going to be established to carry out the monitor- ing work. As mentioned in CR 3, the monitoring parameters are not clear now, more detailed information is required.	See CR 3	A
B.7.2.2.	Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2	The management structure for the monitoring of the electricity fed to the grid is clearly presented in the PDD; however, referring to CR 3, the procedure of monitoring the power delivered from the grid is not clear.	See CR 3	Ŋ
B.7.2.3.	Does the monitoring plan provide current good monitoring practice?	1, 2	Pls. see CR 3.	See CR 3	Ø
B.7.2.4.	If applicable: Does annex 4 provide useful information enabling a better under- standing of the envisoned monitoring provisions?	1, 2	Not applicable.	Ŋ	Ŋ
B.8. Da pe	te of completion of the application of t rson(s)/entity(ies)	he bas	seline study and monitoring methodology an the name of the	ne respor	nsible
B.8.1.	Is there any indication of a date when the baseline was determined?	1	The baseline was determined on June 5 th , 2007. However, the emission factor was updated with the latest data released by the 2006 statistics yearbooks, the revised baseline was determined on Aug. 25 th , 2007.	V	V
B.8.2.	Is this consistent with the time line of the PDD history?	1	Yes. The PDD is prepared with the latest available data at the time of writing (China Electric Power Yearbook 2002-2006, China Energy Statistical Yearbook 2000-2006).	V	Ø
B.8.3.	Is the information on the person(s) / enti- ty(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situa- tion?	1	Yes. The responsible persons indicated in the PDD are also the ones being interviewed for baseline verification during the on site audit.	V	Ŋ



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD	
B.8.4.	Is information provided whether this per- son / entity is also considered a project participant?	1	Yes, the Carbon Resource Management Ltd. is both project par- ticipant and CDM developer.	V	Ŋ	
C. Dura	C. Duration of the project activity / crediting period					
C.1. D	C.1. Duration of the project activity					
C.1.1.	Are the project's starting date and opera-	1	Corrective Action Request 4:	CAR 4	V	
tional lifetime clearly defined and reason- able?			Since the operation day is an expected day which is not as pre- cise as the starting day of construction. Pls. revised the date in C.1.1 with the launch day of construction.			
C.2. C	C.2. Choice of the crediting period and related information					
C.2.1.	Is the assumed crediting time clearly de- fined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1	The life time of the project is 20 years. Confirming with the pro- vided evidence, such as purchasing contract, business plan, etc. the validator has the confidence that it's reasonable. Therefore, the period of max. 7 years with potential for 2 renewals is chosen as the crediting period.	Ø	Ŋ	
D. Envi	D. Environmental impacts					
D.1. C	Oocumentation on the analysis of the en	vironr	nental impacts, including transboundary impacts			
D.1.1.	Has the analysis of the environmental im- pacts of the project activity been suffi- ciently described?	1, 21, 22	Yes, the environmental impacts of the project activity such as noise, waste and water usage have been clearly described.	V	Ø	
D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been ap-	1, 21, 22	Yes, an EIA is a must in P. R. China for new wind farm projects. The EIA survey was carried out by the authorized organization and issued on Nov. 30 th , 2005. The EIA was approved by the EPB	V		



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	proved?		of Zhejiang Province on June 20 th , 2006. The documents have been reviewed by the DOE.		
D.1.3.	Will the project create any adverse envi- ronmental effects?	1, 21, 22	Referred to the EIA and the approval of EIA, the project will create no negative environmental impacts.	V	
D.1.4.	Were transboundary environmental im- pacts identified in the analysis?	1, 21, 22	The proposed wind farm is located within China; hence, this sec- tion is not applicable.	V	Ø
D.2. If e ret ree	environmental impacts are considered sign ferences to support documentation of an e quired by the host Party	nificant nviron	t by the project participants or the host Party, please provide cor mental impact assessment undertaken in accordance with the p	nclusions rocedures	and all s as
D.2.1.	Have the identified environmental impacts been addressed in the project design suf- ficiently?	1, 21, 22	Referred to the EIA and the approval of EIA, the impacts on the environment are not significant.	V	Ø
D.2.2.	Does the project comply with environmen- tal legislation in the host country?	1, 21, 22	Yes, it is.		V
E. Stak	eholders' comments				
E.1. Bri	ef description how comments by local stal	keholde	ers have been invited and compiled		
E.1.1.	Have relevant stakeholders been con- sulted?	1, 23, 24	Yes, the relevant stakeholders have been consulted by being dis- tributed the questionnaires by the local government. The local res- idents got an overview of the project activity, the environmental impacts and the CDM scheme. 50 copies of the questionnaire were distributed; all filled with comments came back to the project owner. No negative comments were given from the respondents. The documents have been reviewed by the DOE. Moreover, the	Ø	V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
			local government issues a letter to the project owner to support the project activity.		
E.1.2.	Have appropriate media been used to in- vite comments by local stakeholders?	1, 23, 24	The local government officer distributed the questionnaire via the governmental distribution system. This is the most appropriate method.	Ø	Ø
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, 23, 24	There are no regulations/laws in China for carrying out the stake- holder consultation process for this project activity.	Ø	Ø
E.1.4.	Is the undertaken stakeholder process that was carried out described in a com- plete and transparent manner?	1, 23, 24	Pls. kindly see E.1.1. of protocol.	V	Ø
E.2. Su	mmary of the comments received				
E.2.1.	Is a summary of the stakeholder com- ments received provided?	1, 23, 24	Pls. kindly see E.1.1. of protocol.	N	N
E.3. Re	port on how due account was taken of any	comm	ents received	-	
E.3.1.	Has due account been taken of any stakeholder comments received?	1, 23, 24	Referring to the PDD and filled questionnaires which were ga- thered from participants and reviewed by the validator on site, all stakeholder comments are positive.	V	V
F. Ann	exes 1 - 4				
Annex	1: Contact Information				
F.1.1.	Is the information provided consistent with	1	Please see A.3.2. of protocol.	\checkmark	V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	the one given under section A.3?				
F.1.2.	Is the information on all private partici- pants and directly involved Parties pre- sented?	1	Please see A.3.2. of protocol.	V	V
Annex	2: Information regarding public funding				
F.1.3.	Is the information provided on the inclu- sion of public funding (if any) in consisten- cy with the actual situation presented by the project participants?	1	Yes. Please see A.4.5.1 of protocol.	V	V
F.1.4.	If necessary: Is an affirmation available that any such funding from Annex-I- countries does not result in a diversion of ODA?	1	Not applicable.	Ø	Ŋ
Annex	3: Baseline information			·	
F.1.5.	If additional background information on baseline data is provided: Is this informa- tion consistent with data presented by other sections of the PDD?	1, 16	All the data source and applied formulae are completely demon- strated in Chapter B of the PDD, hence, there's no additional background information provided in Annex 3. During the on site assessment, the spreadsheet has been completely verified by the auditor, besides CAR 2 issue.	See CAR 2	V
F.1.6.	Is the data provided verifiable? Has suffi- cient evidence been provided to the vali- dation team?	1, 16	Yes. The detailed calculation processes and related data source have been given to audit team for verification.	V	Ø
F.1.7.	Does the additional information substan- tiate / support statements given in other sections of the PDD?	1, 16	The information from Annex 3 is consistent with the statements given in other sections of the PDD.		V



	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
Annex 4: 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	Besides the information provided from B.7 section, detailed man- agement processes, which includes the responsibility, training ar- rangement, calibration and meter failure, are given in Annex 4. All the description is consistent to the description in previous chap- ters.	Ø	Ŋ
F.1.9.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	Pls. see F.1.8. of protocol.	Ø	V
F.1.10.	Do the additional information and / or do- cumented procedures substantiate / sup- port statements given in other sections of the PDD?	1	Pls. see F.1.8. of protocol.	Ø	Ŋ

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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
The proposed project locates in Xinpu Town and	A.4.1.1.	Revise the geographical coordinator in second.	I
		DOE's first response:	
Corrective Action Request 1:		Pls. kindly deliver the related evidence to audit	
The geographical coordinator of project site shall		team.	
be precise in second unit and please deliver the related evidence to auditor.		PP's response:	
		The related document provided by the developer of feasibility study report is delivered.	



As has been verified on site, the yearly emission reduction will reach 99,086 tCO ₂ which is a result of emission factor (0.9361) multiplied by the annual electricity supplied to the grid (105,850MWh). These figures are quoted through the final PDD. Corrective Action Request 2:	A.4.2.2.	Update the OM and BM calculation as NDRC.	 ✓ The baseline calculation is based on the published OM/BM calculation process issued by NDRC (China DNA). Moreover, the wrong emission factors of coke and
The GSP version of the PDD has referred to old emission factors, published in 2006. The statistics yearbooks of 2006 have been published. Accord- ing to the methodology, the latest data shall be used. Pls. kindly upgrade the baseline calculation accordingly.			refinery gas used in the pub- lished values, the imported electricity from connected gr- ids as well are corrected with the values quoted from the IPCC 2006 and the published data released by State Grid Company.
			The result of the OM calcula- tion is slightly higher com- pared to the published val- ues, amounting 0.9591 tCO2/MWh but is found to be correct. BM calculation is identical to NDRC published values. Due to the slightly higher OM the EF value is slightly higher too.



All the parameters used for emission reduction calculation are verified by the audit team on site. However, in section B.6.2. of the PDD, some indi- cators are missing. <u>Corrective Action Request 3:</u> Please refer to the B.6.2.3 - B.6.2.13 of the proto- col, the mentioned indicators shall be included into the PDD. The data and related sources have been assessed on site.	B.6.2.1.	Supplement the indicators for validation.	☑ A complete parameter list used for the estimation of emission reduction during the validation period is presented in the Chap- ter B.6.2 of revised PDD.
<u>Corrective Action Request 4:</u> Since the operation day is an expected day which is not as precise as the starting day of construc- tion. Pls. revised the date in C.1.1 with the launch day of construction.	C.1.1.	Revise the starting date of the project as the launch day of construction in C1.1.	☑ The news of launching the con- struction has been published in the Cixi News Net (local news website) and the screen shot has been reviewed by auditor and included in the document list.
The construction and installation plan is introduced by the project owner on site. At the site visiting time, the construction had been started. However, since the project is still at an early stage, additional information shall be delivered. <u>Clarification Request 1:</u> The time schedule of the implementation of the project should be included into the PDD.	A.4.3.10.	Add implementation schedule of the project includ- ing the starting date, the commissioned date in PDD.	☑ A time schedule is added in Chapter A.4.3. of PDD.



The IRR results with / without CDM revenue are clearly demonstrated in Table 4 of the PDD. The	B.5.10.	Due to the turbine price is increasing recently; the total investment is more than that in FS.	☑ Since the first version was
spreadsheet in English has been verified by the auditor on site. Most of the data and formula used for calculation are given by the approved feasibility report.		Re-calculated investment for the project investment by the East China Investigation and Design Institute (the FS author) was given as the evidence.	made about one year and a half ago (in November of 2005), allowing for the signifi- cant increasing of turbine
Clarification Request 2:		DOE's first response.	price, a re-estimation of in-
Referring to the approved feasibility report, the		DOE SHIST response:	Eastern China Research and
static investment is about 440 RMB million which is much lower than the one used for the IRR calcu- lation (521.63 million RMB). Pls. deliver the evi- dence on such increase.		According to the PDD, the CDM revenue has been considered before the implementation of this project. Hence, the financial parameters at that time shall be used for the IRR calculation. The additional cost occurred after the launch day shall not be con-	Design Institute (same 3 rd party of developing the feasibility study report) before the construction of project.
		sidered.	The audit team considers that
		PP's response:	could be used for the IRR
		The re-estimate on the project investment was made to re-evaluate the project in October 2006 which was prior to the project launch date. After that and considering CDM incentive, the developer started the project in November 2006.	calculation. The supplement document has been included in the Annex 2 of the valida- tion report.

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 <u>Clarification Request 3:</u> Pls. add the accuracy of meters into the PDD. The exact calibration standard shall be clearly presented. 	B.7.1.2.	 Describe the meters location in PDD clearly Indicate the accuracy of meters as 0.5s DOE's first response: For measuring the net electricity, the power supplied to and fed from grid will be monitored. Pls. clarify these two data will be measured by two meters separately or by a bidirectional meter. Pls. also give the installed locations of back-up meters. Pls. present the calibration standard clearly in the Section B.7. of PDD. PP's response: The power supplied to the grid and fed from grid will be monitored by two separate meters installed at different locations. And two respective backup meters will also be installed. The details are presented in PDD Annex 4. Indicate the calibration standard (DL/T448) in PDD both in B.7 and Annex 4. Please refer to the PDD for details. 	

Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

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



Annex 2: Information Reference List

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Reference No.	Document or Type of Information
1	Project Design Document for CDM project "Zhejiang Cixi Windfarm Project", dated on June 5 th , 2007, version 2.3
2	Consolidated baseline methodology for grid-connected electricity generation from renewable sources, ACM0002, version 06
3	Tool for the demonstration and assessment of additionality, version 04
4	Participant list of on-site interview, signed on June 22 nd , 2007
5	On-site interviews and inspection at the office conducted on June 22 nd , 2007 by validators of TÜV SÜD.
	Validation team:
	Cuiyun Zhang Jiangsu TUV Product Service Ltd.
	Interviewed persons:
	Mr. Xiaoguo Ma Cixi Yangtze River Wind Power Co., Ltd. Directing Manager
	Ms. Yanxia Yao Carbon Resource Management Project manager
6	Feasibility Report of Zhejiang Cixi Windfarm Project, dated in Nov., 2005, East China Investigation and Design Institute Under China Hydropower Engineering Consulting Group Corporation
7	Approval of feasibility report of Zhejiang Cixi Windfarm Project, dated on Dec. 31 st , 2005, Zhejiang Development and Reform Commission
8	Land licence, the People's Government of Cixi City
9	Design Report of connection system to grid, dated in Dec., 2005, Zhejiang Power Design Institute
10	Assessment report of connection system, dated on Dec. 29 th , 2005, Zhejiang Power Company
11	Purchasing contract of turbines, Cixi Yangtze River Wind Power Co., Ltd. and Nantong CASC Wanyuan Acciona Wind Turbine Manufacture Co., Ltd. dated on Mar., 2007
12	Training schedule, attachment to the purchasing contract, Cixi Yangtze River Wind Power Co., Ltd.

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Reference No.	Document or Type of Information
13	Training invitation of CDM scheme, dated on April 28 th , 2005, Beijing Jipeng Information Consulting Co., Ltd.
14	Enrollment form, dated on June 9 th , 2005, Cixi Yangtze River Wind Power Co., Ltd.
15	Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects, State Power Corporation of China
16	Spreadsheet of baseline emission, Carbon Resource Management
17	China Electric Power Yearbook 2004-2006
18	China Energy Statistical Yearbook 2003-2006
19	IPCC, 1996 version and 2006 version
20	Financial analysis (IRR spreadsheet), Carbon Resource Management
21	EIA of Zhejiang Cixi Windfarm Project, dated on Nov. 30 th , 2005, East China Investigation and Design Institute Under China Hydropower Engineering Consulting Group Corporation
22	Approval of EIA, date on June 20 th , 2006, Zhejiang Environment Protection Bureau
23	Support letter from the People's Government of Fuhai Town and the People's Government of Xinpu Town, dated on Oct. 18 th , 2006, Cixi Yangtze River Wind Power Co., Ltd.
24	Questionnaires of the local stakeholders, dated in Oct., 2006, Carbon Resource Management
25	Revised Project Design Document for CDM project "Zhejiang Cixi Windfarm Project", dated on Sept. 10 th , 2007, version 3.1, submitted on Oct. 6 th , 2007
26	Revised Financial analysis (IRR spreadsheet), Carbon Resource Management, submitted on Oct. 6 th , 2007
27	Revised spreadsheet of baseline emission, Carbon Resource Management, submitted on Oct. 6 th , 2007
28	Re-estimation of total investment, dated in Sept. 2006, Eastern China Research and Design Institute, submitted on Oct. 6th, 2007
29	Evidence of the starting date of construction (Cixi News Net), the construction launched on Nov. 18 th , 2006, submitted on Oct. 6 th , 2007
30	Geographical coordinates of project site, provided by Eastern China Research and Design Institute, submitted on Oct. 6th, 2007
31	Revised Project Design Document for CDM project "Zhejiang Cixi Windfarm Project", dated on Oct. 10, version 3.2, submitted on Nov.

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Reference No.	Document or Type of Information
	2nd, 2007
32	 Evidences submitted to prove the serious CDM consideration prior to project start: a) Extract of Zhejiang Daily online newspaper, entitled "Zhejiang Company develops Windpower", dated March 10 2005; the article states that Cixi Wind farm project will be constructed and that the developers can get the benefit from CDM revenues; it further quotes Mr. Ma Xiagou (the manager of Zhejiang Cixi project) that the PPs "would try to develop their wind farm as CDM. It would be a good chance for them". b) Loan rejection "Reply to the loan requests for Zhejiang Cixi Wind Farm Project", dated 10 October 2006, send by Sanxia Financial Corporation c) CER ERPA - Terms and conditions for the forward sale and purchase of CERs; referring to "Cixi Yantze river wind power Co.Ltd and seller, and "Carbon Resource Management" as buyer, dated 26 October 2006. d) Loan approval "Reply to the loan requests for Zhejiang Cixi Wind Farm project" dated 3 November 2006, send by Sanxia Financial Corporation e) The loan contract countersigned by Sanxia Financial Corporation
33	The business license of Xanxia Financial Corporation issued by Administration for Industry and Commerce
34	People's Republic of china financial License issued by China Banking Regulatory Committee
35	Minutes of Evaluation meeting for Zhejiang Cixi Wind Farm Minutes, 26 May 2006, concluding that due to increased turbine prices and shortage of supply to ask East China Investigation & Design Institute to re-evaluate the investment analysis.
36	Revised Project Design Document for CDM project "Zhejiang Cixi Windfarm Project", dated on Oct. 10, version 3.4, submitted on March 6th, 2008
37	The certificates of East China Investigation and Design Institute under China Hydropower Engineering Consulting Group Corporation
38	Summary table of the budget in Zhejiang Cixi Wind Farm Project Feasibility Study Report, provided by East China Investigation and Design Institute, dated in September 2006
39	Contract for the 110kV Connection System Project of Zhejiang Cixi Wind Farm, dated on Aug. 3, 2007
40	On-grid tariff approval of Zhejiang Cixi wind farm issued by Zhejiang Provincial Price Bureau, provided by Zhejiang Provincial Price Bureau, dated on Oct. 13, 2008