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Validation Report

Wuling Power Corporation, Ltd.

VALIDATION OF THE CDM-PROJECT:

HUNAN DONGPING 72MW HYDROPOWER PROJECT

REPORT NO. 914109

2008, January 14

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
914109	2007-05-08	2	2008-01-14	-

Subject: Validation of a CDM Project

Accredited TÜV SÜD Unit:	**TÜV SÜD Contract Partner:**
TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich FEDERAL REPUBLIC OF GERMANY	Jiangsu TÜV Product Service Beijing Branch Unit 918, Landmark Tower 2, 8 North Dongsanhuan road, Beijing 100004 P.R. China
Client: Wuling Power Corporation, Ltd. No.188 Wuling Street, Tianxin District, Changsha City, Hunan Province Changsha City, 410004 PEOPLE'S REPUBLIC OF CHINA	**Project Site(s):** Zishui River in the vicinity of Minjiawan, Dongping Town, Anhua County, Yiyang City, Hunan Province, People's Republic of China

Project Title: Hunan Dongping 72MW Hydropower Project

Applied Methodology / Version:	ACM0002 version 06	**Scope(s):**	1

First PDD Version:		**Final PDD version:**	
Date of issuance:	2006-11-25	Date of issuance:	2007-08-10
Version No.:	1	Version No.:	5
Starting Date of GSP	2006-12-06		

Estimated Annual Emission Reduction: 253,336 tons CO_{2e}

Assessment Team Leader:	**Further Assessment Team Members:**
Dr. Sven Kolmetz	Xiaoyan Liu

Summary of the Validation 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.

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:

Hunan Dongping 72MW Hydropower 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 http://cdm.unfccc.int
- Specific guidance by the EB published under http://cdm.unfccc.int
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring 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.

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 (for further information see www.vvmanual.info), 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.

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

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 sections following the arrangement of the applied PDD version. Each section is then further subdivided. The lowest level constitutes a checklist question / criterion.	*Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.*	*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 **Request** has to be substantiated within this column*	*Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **Clarification Request (CR)** is used when the validation team has identified a need for further clarification.*	*Conclusions are presented in the same manner based on the assessment of the final PDD version.*

As for this specific project the final PDD was applying a different version of the methodology than the first one, a table 1a and a table 1b are presented reflecting the changes by the revision of the methodology.

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	***Ref. to table 1***	***Summary of project owner response***	***Validation team conclusion***
If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses 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 corrective action requests	***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 Request.*	*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):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Dr. Sven Kolmetz	**ATL**	☑	☑	
Xiaoyan Liu	A			☑

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

Xiaoyan Liu is an auditor for environmental management systems (according to ISO 14001) at Jiangsu TUV Product Service Ltd. She is based in Beijing. 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 January 4-5, 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. Xia Daixiong	General Manager of Hunan Zijiang Power Development Co., Ltd
Mr. Xiao Zhenbiao	Engineer of Hunan Zijiang Power Development Co., Ltd
Ms. Wen Qisha	CDM Project Manager of China Power Complete Equipment Co., Ltd
Mr. Li Qizhao	Manager of CEM Project Development Office, China Power Complete Equipment Co., Ltd

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.

3 SUMMARY OF FINDINGS

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

Hunan Dongping 72MW Hydropower Project is a grid-connected run-of-river hydropower project. The primary objective of this proposed project is to generate electricity from hydropower station to meet the ever-increasing demand in Hunan Province and contribute to the sustainability of electricity generation of the Central China Grid. Another benefit following the construction of the proposed project is the anti-modulation supplied by this project to Zhexi hydropower station. This venture will optimize the requirements of hump modulation and economic operation of the Hunan Provincial Grid. Furthermore, the project can promote the capability of shipping, water-supply and transportation for the local area. Based on the refined hydrological study, the installed capacity of this proposed project was enlarged from 69 MW (in the Feasibility Study) to 72 MW, which resulted in an increased output of 291.2 GWh and a net supply of 271.1 GWh per year to the Central China Grid through the Hunan Provincial Grid in long-term average.

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

In total the assessment team expressed 2 Clarification Requests and 9 Corrective Action Requests:

The required documents (English version of the IRR calculation excel sheet, benchmark and detailed organizational structure documentation), have been submitted to the DOE and have been included in the final version of the PDD [CR1, CR2].

The issue of additional revenue from optimizing the hump modulation, the capability of shipping, water supply and transportation is clarified and included in the PDD as well [CR1]

Regarding the more formal aspects of the proposed project (PDD revision history, information about a prospective buyer and the geographical coordinates etc.) this information has been added to the PDD finally [CAR1 to 4].

Furthermore the technical information which were missing or have to be adjusted, such as

- the time schedule of implementation of the proposed project, [CAR5]
- the starting date of the crediting period,
- the emission reduction data in the year 2007 [CAR6]
- parameters for the calculation of baseline emissions/emission reductions available at validation (BM, EF,Supply electricity efficiency, OM, COEFi etc.) [CAR7, CAR8]
- monitoring parameters (surface area of full reservoir level) [CAR9]

have been corrected, defined and/or added in the final version of the PDD.

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 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 additionality has been evidenced by investment analysis. The benchmark used (IRR) and the IRR calculation will be uploaded together with the PDD. The investment costs are proven by the preliminary design report approved by the Ministry of WaterResource of the P.R. of China in March

2005. The consideration of CDM has been proven by meeting minutes dated on October 2004 (see annex 2).

Hence, the project complies with the requirements.

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: http://www.netinform.de/KE/Wegweiser/Guide2.aspx?ID=2367&Ebene1_ID=26&Ebene2_ID=700&mode=1	
Starting date of the global stakeholder consultation process: 2006-12-06	
Comment submitted by: none	**Issues raised:** -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

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

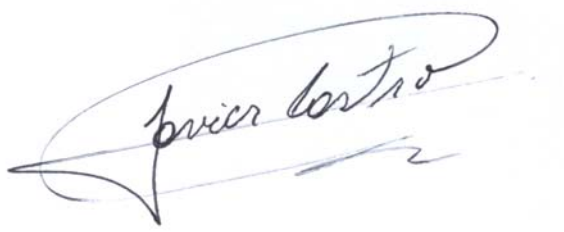
Hunan Dongping 72MW Hydropower Project.

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.

Munich, 2008-01-14



Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Munich, 2008-01-14

Assessment Team Leader

Annex 1: Validation Protocol

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Table 1 Conformity of Project Activity and PDD

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of project activity					
A.1. Title of the project activity					
A.1.1.	Does the used project title clearly enable to identify the unique CDM activity?	1, 2	The project is titled with the name of the project location and the energy source of the project. Hence, it can be clearly identified.	☑	☑
A.1.2.	Are there any indication concerning the revision number and the date of the revision?	1, 2	The available PDD is indicated as version 2 dated 04/12/2006 and also indicated as the final version. <u>Corrective Action Request 1:</u> A revision history of the PDD should be included.	CAR1	☑
A.1.3.	Is this consistent with the time line of the project's history?	1, 2	Yes.	☑	☑
A.2. Description of the project activity					
A.2.1.	Is the description delivering a transparent overview of the project activities?	1, 2	The project is described transparently and the project activities described have been proven during the on-site audit. The turbines have been installed.	☑	☑
A.2.2.	What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1, 2 6-15	The project activity is the displacement of electricity mainly generated by fuel fired power plants with electricity generated by hydro power. The following data deliver evidences for the project activity: - Feasibility Study and approval - Preliminary Design Report and approval - EIA and EIA approval - Agreement of Connection to Grid - Main equipment contracts	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			- Civil construction contract This data have been evidenced during the on-site audit.		
A.2.3.	Is the information provided by these proofs consistent with the information provided by the PDD?	1, 2	Yes, it is.	☑	☑
A.2.4.	Is all information presented consistent with details provided by further chapters of the PDD?	1, 2	Yes.	☑	☑
A.3. Project participants					
A.3.1.	Is the form required for the indication of project participants correctly applied?	1, 2	According to Mr. Li from CDM Project Development Office of CPCEC, the project will not be considered as unilateral project, so the buyer information should be added in chapter A.3 and Annex 1 of the PDD. Corrective Action Request 2: The same has to be revised.	CAR2	☑
A.3.2.	Is the participation of the listed entities or Parties confirmed by each one of them?	1, 2	**Open issue**	Open issue	☑
A.3.3.	Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1, 2	The information on Hunan Zijiang Electric Power Development Co., Ltd is listed in annex 1, but see CAR2.	See CAR2	☑
A.4. Technical description of the project activity					
A.4.1.	*Location of the project activity*				
A.4.1.1.	Does the information provided on the location of the project activity allow for a	1, 2	The project location could be clearly identified according to the PDD. The project activity located on the middle reaches of Zishui	CAR3	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	clear identification of the site(s)?		River where is in the vicinity of Minjiawan, Dongping Town, Anhua County, Yiyang City, Hunan Province. Corrective Action Request 3: The geographical coordinates have to be given.		
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1, 2 8,12	The EIA of the proposed project was approved by the Environmental Protection Bureau of Hunan Province on April 22, 2005 and the Feasibility Study was approved by Development and Reform Committee of Hunan Province on September 24, 2004.	☑	☑
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	Yes, the project falls into scope 1.	☑	☑
A.4.3.	*Technology to be employed by the project activity*				
A.4.3.1.	Does the technical design of the project activity reflect current good practices?	1, 2	Yes, the project activity comprises the use of hydro power for the substitution of grid supplied electricity mainly from fuel fired plant. It reflects the current good practices.	☑	☑
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1, 2	Yes. There is no doubt that this technology will reduce the GHG emissions significantly.	☑	☑
A.4.3.3.	Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1, 2	No, it doesn't. There is no technology transfer from annex-I countries to China by the proposed project.	☑	☑
A.4.3.4.	Is the technology implemented by the project activity environmentally safe?	1, 2 9-12	Yes. The results of the EIA were positive. About the migration resettlement, a detailed resettlement plan was edited in the Preliminary Design and implemented.	☑	☑
A.4.3.5.	Is the information provided in compliance	1, 2	There is a small inconsistency about the rated revolution of gen-	CAR4	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
with actual situation or planning?		erators between the PDD and the equipment contract. Corrective Action Request 4: The same has to be revised.		
A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 2	The common practice for electricity generation is still fuel-fired power plant. Hence, the project definitely would result in a better performance than the common practice.	☑	☑
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 2	We do not expect that there will be a substitution because the equipment has been installed finally and the expected date of all power units put into operation is October 2007. The life time of the project is under normal circumstances longer than the crediting period.	☑	☑
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, 2 16	Yes, in order to guarantee safe operation, the project owner organized several training for the operators. The relevant training plan and records sample were reviewed by the validator.	☑	☑
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	1, 2	Yes, the relevant trainings have been provided.	☑	☑
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?	1, 2	The planning schedule in the past and for the future was clearly described by Mr. Xia Daixiong, Vice General Manager of Hunan Zijiang Power Development Co., Ltd during the on-site audit. The plant construction has been finished and turbines are installed. The risk for delays is very low. Corrective Action Request 5: The time schedule of the implementation of the project should be included into the PDD.	CAR5	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.4.	*Estimated amount of emission reductions over the chosen crediting period*				
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?	1, 2	Yes, the form is correctly applied according to the version 3 of PDD template. 7*3 year crediting period is selected.	☑	☑
A.4.4.2.	Are the figures provided consistent with other data presented in the PDD?	1, 2	Corrective Action Request 6: - The crediting period will start after the registration of this project, so the starting date of the crediting period has to be revised. - According to the project implement time schedule, only part units will be put on operation before October of 2007. So the emission reduction in 2007 has to be re-calculated.	CAR6	☑
A.4.5.	*Public funding of the project activity*				
A.4.5.1.	Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1, 2	Yes. There is no public funding necessary; all costs are covered by bank loans and private equity.	☑	☑
A.4.5.2.	Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1, 2	The statements are consistent within the PDD.	☑	☑
B. Application of a baseline and monitoring methodology					
B.1. Title and reference of the approved baseline and monitoring methodology					
B.1.1.	Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 2	Yes, the latest version of ACM0002 (version 6) has been applied and the reference is clearly indicated.	☑	☑
B.1.2.	Is the applied version the most recent one	1, 2	Yes, it is.	☑	☑

<table>
<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td colspan="2">and / or is this version still applicable?</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="6">B.2. Justification of the choice of the methodology and why it is applicable to the project activity</td></tr>
<tr><td>B.2.1.</td><td>Is the applied methodology considered the most appropriate one?</td><td>1, 2</td><td>Yes. The approved methodology ACM0002 is exactly applicable to the hydro power projects.</td><td>☑</td><td>☑</td></tr>
<tr><td>B.2.2.</td><td>Criterion 1:
Type of capacity addition by renewable energy</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.2.3.</td><td>Criterion 2:
Exclusion of fuel switching activities</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.2.4.</td><td>Criterion 3:
Defined electricity grid boundaries</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.2.5.</td><td>Criterion 4:
Approved inclusion in other methodolo-</td><td>1, 2</td><td>Not applicable</td><td>☑</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
gies (if applied only)				
B.3. Description of the sources and gases included in the project boundary				
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 checklist: Source and gas(es) discussed by the PDD? N/A; Inclusion / exclusion justified? N/A; Explanation / Justification sufficient? N/A; Consistency with monitoring plan? N/A	☑	☑
B.3.2. Source: Emissions from combustion of fossil fuels (geothermal activities only) Gas(es): CO_2 Type: Project Emissions	1, 2	Boundary checklist: Source and gas(es) discussed by the PDD? N/A; Inclusion / exclusion justified? N/A; Explanation / Justification sufficient? N/A; Consistency with monitoring plan? N/A	☑	☑
B.3.3. Source: Emissions from the reservoir (new hydroelectric activities only) Gas(es): CO_2, CH_4 Type: Project Emissions	1, 2	Boundary checklist: Source and gas(es) discussed by the PDD? Yes; Inclusion / exclusion justified? Yes; Explanation / Justification sufficient? Yes; Consistency with monitoring plan? Yes	☑	☑
B.3.4. Source: Emissions from electricity generation in fossil fuel fired power plants of the project electricity system	1, 2	Boundary checklist: Source and gas(es) discussed by the PDD? N/A; Inclusion / exclusion justified? N/A	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
Gas(es): CO_2 Type: Baseline Emissions		Explanation / Justification sufficient? N/A Consistency with monitoring plan? N/A		
B.3.5. Source: Emissions from electricity generation in fossil fuel fired power plants of any connected electricity system Gas(es): CO_2 Type: Baseline Emissions	1, 2	Boundary checklist: Yes / No Source and gas(es) discussed by the PDD? Yes Inclusion / exclusion justified? Yes Explanation / Justification sufficient? Yes Consistency with monitoring plan? Yes	☑	☑
B.3.6. Source: Emissions from electricity generation in fossil fuel fired power plants of imported electricity Gas(es): CO_2 Type: Baseline Emissions	1, 2	Boundary checklist: Yes / No Source and gas(es) discussed by the PDD? N/A Inclusion / exclusion justified? N/A Explanation / Justification sufficient? N/A Consistency with monitoring plan? N/A	☑	☑
B.3.7. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?	1, 2	Yes. The project boundary of the proposed project is represented by the Central China Grid which consists of several sub-grids including Henan, Hubei, Hunan, Jiangxi, Sichuan and Chongqing.	☑	☑
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	Yes.	☑	☑
B.4.2. In case of any modification or retrofit of existing facilities:	1, 2	Not applicable.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	Is data available to determine the historic production level?				
B.4.3.	In case of any modification or retrofit of existing facilities: Have conservative assumptions been applied in order to estimate the point in time when the existing equipment needs to be replaced?	1, 2	Not applicable.	☑	☑
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):					
B.5.1.	In case of applying step 0 of the additionality tool: Is evidence provided, that the project's starting date is after Jan 01, 2000 and before Nov 18, 2004?	1, 2 3	Not applicable.	☑	☑
B.5.2.	In case of applying step 0 of the additionality tool: Is evidence provided, that CDM has been considered seriously in the decision to proceed with the project activity?	1, 2 3	See B.5.1.	☑	☑
B.5.3.	Have realistic and credible alternatives been identified providing comparable outputs or services? (step 1a)	1, 2 3	The following baseline scenarios are discussed: - The proposed project itself, but not undertaken as a CDM project activity - Construction of a coal-fired power plant with equivalent installed capacity or annual electricity generation - Equivalent capacity or electricity service provided by the Central China Grid. These scenarios are the only ones that are making sense, because other renewables are clearly more expensive than hydro power.	☑	☑
B.5.4.	Is the project activity without CDM in-	1, 2	Yes.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	cluded in these alternatives? (step 1a)	3			
B.5.5.	Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations? (step 1b)	1, 2 3, 17-18	Yes. China's power regulations and policies about structural reform, electricity price policy and prohibiting/limitation the installation of fuel-fired power plants, etc. are identified.	☑	☑
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, 2 3	Not applicable.	☑	☑
B.5.7.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 2 3, 19	Yes, the benchmark analysis is applied. 8% IRR benchmark of total investment is used.	☑	☑
B.5.8.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1, 2 3	Not applicable.	☑	☑
B.5.9.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 2 3	Not applicable.	☑	☑
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, 2 3	Yes, the IRR and NPV indicator is selected.	☑	☑
B.5.11.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	1, 2 3	The calculation of financial figures for IRR and NPV is done for the project activity without the revenues from the sale of CERs and with the revenues from the sale of CERs. Four parameters were selected at the sensitivity analysis,:	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			- Static total investment - Annual O&M cost - Electricity delivered to grid - Expected tariff (Incl. VAT)		
B.5.12.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	1, 2 3, 7, 8, 21-23	Yes. The input data have been verified during the on-site audit. <u>Clarification request 1:</u> The English version of the IRR calculation excel sheet has to be submitted to the DOE as Excel version and PDF for uploading together with the PDD as well as the document that shows the bench mark. Please clarify if there are additional revenues from the optimization of the hump modulation, the capability of shipping, water supply and transportation.	CR1	☑
B.5.13.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1, 2 3	Not applicable.	☑	☑
B.5.14.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1, 2 3	Not applicable.	☑	☑
B.5.15.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1, 2 3	Not applicable.	☑	☑
B.5.16.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1, 2 3, 24 25	Yes. A list of the hydropower plants with size from 50MW to 250MW in Hunan Province is identified and analyzed. The evidences were reviewed during on-site audit.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
B.5.17.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	1, 2 3	Yes.	☑	☑
B.5.18.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?	1, 2 3	The CDM registration will help the proposed project become attractive for commercial investors; furthermore, the loan for project construction and additional investment was approved considering the revenues from CERs.	☑	☑
B.6. Emissions reductions					
B.6.1.	*Explanation of methodological choices*				
B.6.1.1.	Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1, 2	The calculation of the emission reduction is applied according to the steps described in ACM0002: - Calculation of the Operating Margin Emission Factor - Calculation of the Build Margin Emission Factor - Calculation of the Combined Margin Emission Factor - Calculation of the Baseline Emission These steps are described in a transparent manner.	☑	☑
B.6.1.2.	Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1, 2	Yes, it is.	☑	☑
B.6.1.3.	Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2 26, 27	A backup diesel generator is designed to supply power in urgent cases when the power plant is accidentally stopped and the supplied power from the grid also broke down. The possibility of this case is small. The rated capacity of diesel generator is 300kW.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		The possible operating hours per year are less than 100h, according to the investigation from North China Power Institute Co., Ltd.		
B.6.1.4. Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2	NDRC published emission factor of China Central Grid are used. The relevant formulae to calculate the baseline emissions are presented. <u>Corrective Action Request 7:</u> - The BM calculation method in the files published by NDRC is more conservative than the former one based on the approved deviation by the EB, but this is not yet approved by the EB. The relevant description on page 18 of the PDD has to be revised. - In table B-6 of the PDD, “coal consumption rate” or “supply electricity efficiency” is meant? - There is a small inconsistency regarding EF_{OM} and its calculation, $EF_{Thermal}$ and EF_{BM} between the PDD and the data published by the NDRC. - There is an inconsistency about electricity generation from Hydro power in 2004 between Table 1 of Annex 3 and the data published by the NDRC. - The calculation formula and result of the EF_{BM} calculation should be included in Annex 3 of the PDD. - Regarding foot-note 22 in the PDD, please give the detailed reference document. - A comparison between the official emission factors and ones required by the methodology (using IPCC2006 and national values where available) has to be submitted to the DOE. The more conservative value should be used.	CAR7	☑
B.6.1.5. Is the choice of options to determine the emissions factor (OM, BM) justified in a	1, 2	Yes.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	suitable and transparent manner?				
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	Not applicable. The default weights for hydro power projects in the 6th version of ACM0002 (OM 0.5 and BM 0.5 respectively) are used.	☑	☑
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 discussion?	1, 2	See B.6.1.6.	☑	☑
B.6.1.8.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2	No leakage is considered according to the methodology.	☑	☑
B.6.1.9.	Are formulae required for the determination of emission reductions correctly presented?	1, 2	Yes.	☑	☑
B.6.2.	*Data and parameters that are available at validation*				
B.6.2.1.	Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1, 2	Yes. A list of parameters is clearly presented. Corrective Action Request 8: - The parameters mentioned in the data published by the NDRC, such as the captive power rate, λ_i the proportion of emission from different fuel i power plant to the total emissions etc, as well as COEFi, CM, OM and BM have to be presented separately in the table B.6.2. If there are several values for one parameter a reference to annex 3 can be included.	CAR8	☑
B.6.2.2.	Is the choice of ex-ante or ex-post vintage	1, 2	Yes, the ex-ante calculation of emission factors is chosen.	☑	☑

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td>of OM and BM factors clearly specified in the PDD?</td><td></td><td></td><td></td><td></td></tr>
<tr><td>B.6.2.3. Parameter Title:
Annual electricity supplied to the grid prior to retrofit
(applicable only for retrofit and modification activities)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N/A</td></tr><tr><td>Data unit correctly expressed?</td><td>N/A</td></tr><tr><td>Appropriate description of parameter?</td><td>N/A</td></tr><tr><td>Source clearly referenced?</td><td>N/A</td></tr><tr><td>Correct value provided?</td><td>N/A</td></tr><tr><td>Has this value been verified?</td><td>N/A</td></tr><tr><td>Choice of data correctly justified?</td><td>N/A</td></tr><tr><td>Measurement method correctly described?</td><td>N/A</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.4. Parameter Title:
Emission factor of the grid (CM)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>See CAR8.</td><td>See CAR8</td><td>☑</td></tr>
<tr><td>B.6.2.5. Parameter Title:
Operating margin (OM) emission factor of the grid</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr></table></td><td>See CAR8</td><td>☑</td></tr>
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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Source clearly referenced? No Correct value provided? No Has this value been verified? No Choice of data correctly justified? No Measurement method correctly described? No See CAR8.		
B.6.2.6. Parameter Title: Build margin (BM) emission factor of the grid	1, 2	Data Checklist / Yes / No Title in line with methodology? No Data unit correctly expressed? No Appropriate description of parameter? No Source clearly referenced? No Correct value provided? No Has this value been verified? No Choice of data correctly justified? No Measurement method correctly described? No See CAR8.	See CAR8	☑
B.6.2.7. Parameter Title: fuel consumption of each province power grid	1, 2	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? N/A	☑	☑

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td>B.6.2.8. Parameter Title:
emission coefficient of each fuel</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>N/A</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.9. Parameter Title:
electricity generation supplied to the grid by each province</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>See CAR8.</td><td>See CAR8</td><td>☑</td></tr>
<tr><td>B.6.2.10. Parameter Title:
surface area of full reservoir level (for new hydroelectric activities only)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr></table></td><td>See CAR8</td><td>☑</td></tr>
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<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td><table><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>See CAR8.</td><td></td><td></td></tr>
<tr><td>B.6.2.11. Parameter Title:
fraction of time with low costs /must run plant at the margin
(for simple adjusted OM only)</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N/A</td></tr><tr><td>Data unit correctly expressed?</td><td>N/A</td></tr><tr><td>Appropriate description of parameter?</td><td>N/A</td></tr><tr><td>Source clearly referenced?</td><td>N/A</td></tr><tr><td>Correct value provided?</td><td>N/A</td></tr><tr><td>Has this value been verified?</td><td>N/A</td></tr><tr><td>Choice of data correctly justified?</td><td>N/A</td></tr><tr><td>Measurement method correctly described?</td><td>N/A</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.12. Parameter Title:
electricity imports</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N/A</td></tr><tr><td>Data unit correctly expressed?</td><td>N/A</td></tr><tr><td>Appropriate description of parameter?</td><td>N/A</td></tr><tr><td>Source clearly referenced?</td><td>N/A</td></tr><tr><td>Correct value provided?</td><td>N/A</td></tr><tr><td>Has this value been verified?</td><td>N/A</td></tr><tr><td>Choice of data correctly justified?</td><td>N/A</td></tr><tr><td>Measurement method correctly described?</td><td>N/A</td></tr></table>There is no imported electricity into China Central Grid till now.</td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.13. Parameter Title:
CO_2 emission coefficient of fuels used in connected grids</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr></table></td><td>See CAR8</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			Data unit correctly expressed? No Appropriate description of parameter? No Source clearly referenced? No Correct value provided? No Has this value been verified? No Choice of data correctly justified? No Measurement method correctly described? No See CAR8.		
B.6.3.	*Ex-ante calculation of emission reductions*				
B.6.3.1.	Is the projection based on the same procedures as used for future monitoring?	1, 2	Yes.	☑	☑
B.6.3.2.	Are the GHG calculations documented in a complete and transparent manner?	1, 2	Yes. NDRC published emission factor and the relevant calculations are used.	☑	☑
B.6.3.3.	Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1, 2	Yes.	☑	☑
B.6.4.	*Summary of the ex-ante estimation of emission reductions*				
B.6.4.1.	Will the project result in fewer GHG emissions than the baseline scenario?	1, 2	Yes, emission reduction will be achieved through avoided power generation of fossil fuel electricity due to the power generated by the proposed project.	☑	☑
B.6.4.2.	Is the form/table required for the indication of projected emission reductions correctly applied?	1, 2	Yes, the form is correctly applied according to the PDD template, but see CAR6.	See CAR6	☑
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	Yes.	☑	☑

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<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td>B.6.4.4.</td><td>Is the data provided in this section in consistency with data as presented in other chapters of the PDD?</td><td>1, 2</td><td>Yes.</td><td>☑</td><td>☑</td></tr>
<tr><td colspan="6">B.7. Application of the monitoring methodology and description of the monitoring plan</td></tr>
<tr><td colspan="6">B.7.1. Data and parameters monitored</td></tr>
<tr><td>B.7.1.1.</td><td>Is the list of parameters presented by chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?</td><td>1, 2</td><td>Yes. EGy is the parameter that shall be monitored and recorded. According to the statement from the project owner, this parameter could be directly measured by the power meter, which directly deducts the captive power. But the purchased power in case of emergencies has to be monitored as well.
The parameter: surface area of full reservoir level has to be presented.
<u>Corrective Action Request 9:</u>
The same has to be revised.</td><td>CAR9</td><td>☑</td></tr>
<tr><td>B.7.1.2.</td><td>Parameter Title:
Electricity supplied to the grid</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.7.1.3.</td><td>Parameter Title:</td><td>1, 2</td><td></td><td>☑</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
Quantity of steam produced (for geothermal projects only)		Monitoring Checklist / Yes / No Title in line with methodology? N/A Data unit correctly expressed? N/A Appropriate description of parameter? N/A Source clearly referenced? N/A Correct value provided for estimation? N/A Has this value been verified? N/A Measurement method correctly described? N/A Correct reference to standards? N/A Indication of accuracy provided? N/A QA/QC procedures described? N/A QA/QC procedures appropriate? N/A		
B.7.1.4. Parameter Title: Fraction of CO_2 in steam produced (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 QA/QC procedures appropriate? N/A	☑	☑
B.7.1.5. Parameter Title: Fraction of CH_4 in steam produced	1, 2	Monitoring Checklist / Yes / No	☑	☑

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PDD in GSP</th><th>Final PDD</th></tr>
<tr><td>(for geothermal projects only)</td><td></td><td><table>
<tr><td>Title in line with methodology?</td><td>N/A</td></tr>
<tr><td>Data unit correctly expressed?</td><td>N/A</td></tr>
<tr><td>Appropriate description of parameter?</td><td>N/A</td></tr>
<tr><td>Source clearly referenced?</td><td>N/A</td></tr>
<tr><td>Correct value provided for estimation?</td><td>N/A</td></tr>
<tr><td>Has this value been verified?</td><td>N/A</td></tr>
<tr><td>Measurement method correctly described?</td><td>N/A</td></tr>
<tr><td>Correct reference to standards?</td><td>N/A</td></tr>
<tr><td>Indication of accuracy provided?</td><td>N/A</td></tr>
<tr><td>QA/QC procedures described?</td><td>N/A</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>B.7.1.6. Parameter Title:
Quantity of steam generated during well testing
(for geothermal projects only)</td><td>1, 2</td><td><table>
<tr><th>Monitoring Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>N/A</td></tr>
<tr><td>Data unit correctly expressed?</td><td>N/A</td></tr>
<tr><td>Appropriate description of parameter?</td><td>N/A</td></tr>
<tr><td>Source clearly referenced?</td><td>N/A</td></tr>
<tr><td>Correct value provided for estimation?</td><td>N/A</td></tr>
<tr><td>Has this value been verified?</td><td>N/A</td></tr>
<tr><td>Measurement method correctly described?</td><td>N/A</td></tr>
<tr><td>Correct reference to standards?</td><td>N/A</td></tr>
<tr><td>Indication of accuracy provided?</td><td>N/A</td></tr>
<tr><td>QA/QC procedures described?</td><td>N/A</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr>
</table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.7.1.7. Parameter Title:
Fraction of CO_2 in steam during well testing</td><td>1, 2</td><td><table>
<tr><th>Monitoring Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>N/A</td></tr>
</table></td><td>☑</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
(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 Correct reference to standards? N/A Indication of accuracy provided? N/A QA/QC procedures described? N/A QA/QC procedures appropriate? N/A		
B.7.1.8. Parameter Title: Fraction of CH_4 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 QA/QC procedures appropriate? N/A	☑	☑
B.7.1.9. Parameter Title: CO_2 emission coefficient of fuel used by the geothermal plant (for geothermal projects only)	1, 2	Monitoring Checklist — Yes / No Title in line with methodology? N/A Data unit correctly expressed? N/A	☑	☑

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		
B.7.2. Description of the monitoring plan				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisoned situation?	1, 2	Clarification Request 2: An organization structure detailing responsibility and authority for operation and maintenance of the plant needs to be submitted to the DOE, including monitoring, registration, compilation and reporting data.	CR2	☑
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2	See CR2.	See CR2	☑
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1, 2	Yes. According to the statement in the PDD, the measurement will in compliance with the National Guidelines and requirements of the grid company for accuracy and reliability. The calibration will be carried out according to relevant national standards and regulations by authorized organization. The measurement data could be double-checked by receipt of sales.	☑	☑
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisoned monitoring provisions?	1, 2	Yes.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)					
B.8.1.	Is there any indication of a date when the baseline was determined?	1, 2	Yes, the 01/11/2006.	☑	☑
B.8.2.	Is this consistent with the time line of the PDD history?	1, 2	Yes.	☑	☑
B.8.3.	Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1, 2	Mr. Li Qizhao, Mr. Qian Huawei, Ms Wen Qisha and Ms. Meng Jing from CDM Project Development Office of CPCEC determined the baseline and monitoring methodology.	☑	☑
B.8.4.	Is information provided whether this person / entity is also considered a project participant?	1, 2	Yes.	☑	☑
C. Duration of the project activity / crediting period					
C.1. Duration of the project activity					
C.1.1.	Are the project's starting date and operational lifetime clearly defined and reasonable?	1, 2 15	Yes. The project starting date is 10/11/2004 and the operational lifetime is expected to be 30 years.	☑	☑
C.2. Choice of the crediting period and related information					
C.2.1.	Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max.	1, 2	7 years with potential for 2 renewals is chosen as the crediting period, but the starting date of the first crediting period has to be revised according to CAR6.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
10 years)?				
D. Environmental impacts				
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts				
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1, 2, 11, 12, 28-30	Yes, the environmental impacts on air quality, noise, water lose and soil erosion, water quality, aquatic ecosystem and migration resettlement have been clearly described.	☑	☑
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1, 2 11, 12	Yes, EIA is a must in P. R. China for new hydro power projects. The EIA of the proposed project was approved by Environmental Protection Bureau of Hunan Province on April 22, 2005. The documents have been reviewed by the DOE.	☑	☑
D.1.3. Will the project create any adverse environmental effects?	1, 2 11, 12	Referred to the EIA and the approval of EIA, the project will create no negative environmental impacts.	☑	☑
D.1.4. Were transboundary environmental impacts identified in the analysis?	1, 2 11, 12	There is no trans-boundary impact described in EIA report or approval of EIA.	☑	☑
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1, 2 11, 12	Refer to the EIA and the approval of EIA, there is no adverse environmental impact from the project activity.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
D.2.2.	Does the project comply with environmental legislation in the host country?	1, 2 11, 12	Yes, the project is in conformity with the environmental legislation of P. R. China and the EIA has been approved by authorized organization.	☑	☑
E. Stakeholders' comments					
E.1. Brief description how comments by local stakeholders have been invited and compiled					
E.1.1.	Have relevant stakeholders been consulted?	1, 2 31-33	Yes, the relevant stakeholders have been consulted via questionnaires. No negative comments were given from the participants.	☑	☑
E.1.2.	Have appropriate media been used to invite comments by local stakeholders?	1, 2 31-33	Broadcasting, meeting and questionnaires were used to invite comments by local stakeholders.	☑	☑
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, 2	There are no regulations/laws in China for carrying out the stakeholder consultation process for this project activity.	☑	☑
E.1.4.	Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 2 31-33	Yes.	☑	☑
E.2. Summary of the comments received					
E.2.1.	Is a summary of the stakeholder comments received provided?	1, 2	Yes, E.2. and E.3. of the PDD give a summary of stakeholder comments received by questionnaires.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
E.3. Report on how due account was taken of any comments received					
E.3.1.	Has due account been taken of any stakeholder comments received?	1, 2 9, 10	All stakeholder comments are positive and all the recommendations and suggestions were accepted by the project owner. The corresponding plans were edited in the Preliminary Design which has been reviewed by the validator during on-site audit.	☑	☑
F. Annexes 1 - 4					
Annex 1: Contact Information					
F.1.1.	Is the information provided consistent with the one given under section A.3?	1, 2	Yes.	☑	☑
F.1.2.	Is the information on all private participants and directly involved Parties presented?	1, 2	The information about Hunan Zijiang Electric Power Development Co., Ltd is presented, but see CAR2.	See CAR2	☑
Annex 2: Information regarding public funding					
F.1.3.	Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1, 2	Yes. There is no public funding necessary; all costs are covered by bank loans and private equity.	☑	☑
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, 2	See F.1.3	☑	☑
Annex 3: Baseline information					
F.1.5.	If additional background information on baseline data is provided: Is this informa-	1, 2	Yes. The official published emission factors about OM and BM are used.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	tion consistent with data presented by other sections of the PDD?				
F.1.6.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1, 2	Yes, but see CAR7.	See CAR7	☑
F.1.7.	Does the additional information substantiate / support statements given in other sections of the PDD?	1, 2	Yes.	☑	☑
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, 2	Yes.	☑	☑
F.1.9.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1, 2	See F.1.8.	☑	☑
F.1.10.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1, 2	See F.1.8.	☑	☑

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 available PDD is indicated as version 2 dated 04/12/2006 and also indicated as the final version. Corrective Action Request 1: A revision history of the PDD should be included.	A.1.2	The revision history of the PDD is included in the revised PDD.	☑
According to Mr. Li from CDM Project Development Office of CPCEC, the project will not be considered as unilateral project, so the buyer information should be added in chapter A.3 and Annex 1 of the PDD. Corrective Action Request 2: The same has to be revised.	A.3.1	The buyer information is added in the revised PDD.	☑
The project location could be clearly identified according to the PDD. The project activity located on the middle reaches of Zishui River where is in the vicinity of Minjiawan, Dongping Town, Anhua County, Yiyang City, Hunan Province. Corrective Action Request 3: The geographical coordinates have to be given.	A.4.1.1	The geographical coordinates of the project location is added in the revised PDD.	☑
There is a small inconsistency about the rated revolution of generators between the PDD and the equipment contract. Corrective Action Request 4: The same has to be revised.	A.4.3.5	The rated revolution of generators in the equipment contract is used in the revised PDD.	☑

The planning schedule in the past and for the future was clearly described by Mr. Xia Daixiong, Vice General Manager of Hunan Zijiang Power Development Co., Ltd during the on-site audit. The plant construction has been finished and turbines are installed. The risk for delays is very low. <u>Corrective Action Request 5:</u> The time schedule of the implementation of the project should be included into the PDD.	A.4.3.10	The time schedule of the implementation of the project is included in the revised PDD.	☑
<u>Corrective Action Request 6:</u> - The crediting period will start after the registration of this project, so the starting date of the crediting period has to be revised. - According to the project implement time schedule, only part units will be put on operation before October of 2007. So the emission reduction in 2007 has to be re-calculated.	A.4.4.2	-The starting date of the crediting period is corrected to Nov. 1, 2007. -The emission reduction for the first year in 2007 is corrected to 244,235tCO2, and 254,853 tCO2 the following year, average annual emission reduction is 253,336tCO2.	☑

NDRC published emission factor of China Central Grid are used. The relevant formulae to calculate the baseline emissions are presented. Corrective Action Request 7: - The BM calculation method in the files published by NDRC is more conservative than the former one based on the approved deviation by the EB, but this is not yet approved by the EB. The relevant description on page 18 of the PDD has to be revised. - In table B-6 of the PDD, "coal consumption rate" or "supply electricity efficiency" is meant? - There is a small inconsistency regarding EF_{OM} and its calculation, $EF_{Thermal}$ and EF_{BM} between the PDD and the data published by the NDRC. - There is an inconsistency about electricity generation from Hydro power in 2004 between Table 1 of Annex 3 and the data published by the NDRC. - The calculation formula and result of the EF_{BM} calculation should be included in Annex 3 of the PDD.	B.6.1.4	-The relevant description is corrected in the revised PDD. -The "coal consumption rate" is corrected to "supply electricity efficiency". -The EF_{OM} in the calculation of NDRC is the weighted average of the EF_{OM} of the last 3 years. The EF_{OM} in the calculation of the PDD is the mathematic average of the EF_{OM} of the last 3 years, which is more conservative than the calculation of NDRC. The small inconsistency of $EF_{Thermal}$ and EF_{BM} between the PDD and the data published by the NDRC is caused by the calculation accuracy of Excel. The errors are only 0.011% for $EF_{Thermal}$ and 0.016% for EF_{BM}. The baseline emission factor of the PDD is more conservative than the calculation of NDRC. Hence, these small inconsistencies can be ignored and are kept. -This has been corrected to the data published by the NDRC. -This has been corrected.	☑ The corrected data have been checked und verified.

- Regarding foot-note 22 in the PDD, please give the detailed reference document. - A comparison between the official emission factors and ones required by the methodology (using IPCC 2006 and national values where available) has to be submitted to the DOE. The more conservative value should be used.		-The detailed reference is included in the revised PDD, see Page 18. -Two calculations are done by using the data of IPCC 2006 and the most conservative values among IPCC 2006 and IPCC 1996. The calculation by using IPCC 2006 uses the Default Carbon Content and the Default Carbon Oxidation Factor in IPCC 2006. The calculation by using the most conservation values uses values of Default Carbon Oxidation Factor in IPCC 1996 and values of Default Carbon Content in IPCC 2006. The emission factor of using IPCC 2006 is 0.963729 tCO2e/MWh while the emission factor of using the most conversation values is 0.944380 tCO2e/MWh. The official emission factor using Default Carbon Content values and Default Carbon Oxidation Factor values in IPCC 1996 is 0.94445 tCO2e/MWh. The results show that, the official emission factors are more conservative than the calculation using the data of IPCC 2006, and the calculation using the most conservative values among IPCC 2006 and IPCC 1996 is more conservative than the official emission factors. But, the emission factors by using the most conservative values among IPCC 2006 and IPCC 1996 is higher than the emission factors in the PDD which is 0.940069 tCO2e/MWh. Hence, the calculation in the PDD is most conservative and kept.	☑ The justification is reasonable and has been accepted.

Yes. A list of parameters is clearly presented. <u>Corrective Action Request 8:</u> - The parameters mentioned in the data published by the NDRC, such as the captive power rate, λ_i the proportion of emission from different fuel i power plant to the total emissions etc, as well as COEFi, CM, OM and BM have to be presented separately in the table B.6.2. If there are several values for one parameter a reference to annex 3 can be included.	B.6.2.1	-The parameters mentioned in the data published by the NDRC, such as the captive power rate, λi the proportion of emission from different fuel i power plant to the total emissions etc, as well as COEFi, CM, OM and BM are included in the revised PDD.	☑
Yes. EGy is the parameter that shall be monitored and recorded. According to the statement from the project owner, this parameter could be directly measured by the power meter, which directly deducts the captive power. But the purchased power in case of emergencies has to be monitored as well. The parameter: surface area of full reservoir level has to be presented. <u>Corrective Action Request 9:</u> The same has to be revised.	B.7.1.1	The monitoring of the achieved electricity and the surface area of full reservoir level are included in the revised PDD.	☑

Yes. The input data have been verified during the on-site audit. Clarification Request 1: The English version of the IRR calculation excel sheet has to be submitted to the DOE as Excel version and PDF for uploading together with the PDD as well as the document that shows the bench mark. Please clarify if there are additional revenues from the optimization of the hump modulation, the capability of shipping, water supply and transportation.	B.5.12	There is no additional revenue from the optimization of the hump modulation, the capability of shipping, water supply and transportation because the project owner supplies these functions as public service. This is included in the revised PDD, see Page 11. The evidences of IRR benchmark and IRR calculation have been submitted to the DOE.	☑
Clarification Request 2: An organization structure detailing responsibility and authority for operation and maintenance of the plant needs to be submitted to the DOE, including monitoring, registration, compilation and reporting data.	B.7.2.1	The organization structure detailing responsibility and authority for operation and maintenance of the plant is included in the revised PDD.	☑

Industrie Service

Annex 2: Information Reference List

Reference No.	Document or Type of Information
1.	Project Design Document for CDM project “Hunan Dongping 72MW Hydropower Project”, version 2
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 02
4.	Participant list of on-site interview, signed on January 4, 2007
5.	On-site interviews at the project site in Dongping Town, Anhua County, Yiyang City, Hunan Province, P.R.China., conducted on January 4-5, 2007 by auditing team of TÜV SÜD: Validation team: Ms. Liu Xiaoyan CDM Auditor, TUV SÜD Industrie Service GmbH Interviewed persons: Mr. Xia Daixiong Vice General Manager of Hunan Zijiang Power Development Co., Ltd Mr. Xiao Zhenbiao Engineer of Hunan Zijiang Power Development Co., Ltd Ms. Wen Qisha CDM Project Manager of China Power Complete Equipment Co., Ltd Mr. Li Qizhao Manager of CEM Project Development Office, China Power Complete Equipment Co., Ltd
6.	Work Meeting Minutes about Dongping Hydropower Project CDM development, dated October 18, 2004
7.	Feasibility Study Report for CDM project “Hunan Dongping 72MW Hydropower Project”, dated May 2004
8.	Approval of Feasibility Study Report for CDM project “Hunan Dongping 72MW Hydropower Project”, Development and Reform Committee of Hunan Province, File No. Xiang Fa Gai Jiao Neng [2004]694, dated September 24, 2004
9.	Preliminary Design Report for CDM project “Hunan Dongping 72MW Hydropower Project”, dated March 2005
10.	Approval of Preliminary Design Report for CDM project “Hunan Dongping 72MW Hydropower Project”, Water Conservation Bureau of Hunan Province, File No. Xiang Shui Nong Dian [2005]9, dated May 8, 2005
11.	EIA Report for CDM project “Hunan Dongping 72MW Hydropower Project”, dated March 2005
12.	Approval of EIA Report for CDM project “Hunan Dongping 72MW Hydropower Project”, Environmental Protection Bureau of Hunan Province, File No. Xiang Huan Ping [2005]34, dated April 22, 2005
13.	Approval of Grid Connection for CDM project “Hunan Dongping 72MW Hydropower Project” , Hunan Power Company, dated on June 21, 2004
14.	Turbines and Generators Purchase Contract, contract no: DP-C2/01, dated January 2005
15.	Dongping Hydropower Plant Civil Construction Contract, contract no: DP-C1/01, dated November 16, 2004(04 11 10)

Reference No.	Document or Type of Information
16.	Training Plan of the year of 2006 and Training Records Sample
17.	Notice on Strictly Prohibiting the Installation of Fuel-fired Generators with Capacity of 135 MW or below, the General Office of the State Council, decree no. Guo Ban Fa Ming Dian [2002]6, dated April 15, 2002.
18.	The Temporary Stipulation of the Construction Management of Small Scale Units of Fuel-fired Power Generation, dated August, 1997
19.	Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects, State Power Corporation of China. China Electric Power Press, 2003
20.	52 National Poverty Counties List, issued on the website of the Office of Poverty Alleviation and Development, The State Council Leading Group, dated August 31, 2006
21.	Electricity Transmission Engineering Constrction Contract, contract no. ZJGS/XL-01, dated July 2006 59799379
22.	The Route Compliance and Construction Contract, contract no. ZJDP0054
23.	The Notice for Adjusting the Tariff of the Central China Grid, released by NRDC. File No. FA GAI JIA GE[2006]1233, dated June 28, 2006
24.	Statistics of middle size hydropower plants from 50MW to 250MW in Hunan Province, Water Conservation and Hydro Power Survey Design Institute, dated September 2006
25.	News broadcasting about Zhuzhouhangdian project, Website of Number Zhuzhou, dated October 9, 2004; Website of News Certer, dated April 17th, 2006
26.	Investigation concerning Back-up Diesel Generator yearly usage hours in Large scale and middle scale hydropower plants, North China Power Institute Co., Ltd, dated December 2006
27.	Explanation about CO_2 Emission from the Backup Diesel Generator of Hunan Dongping 72MW Hydropower Project
28.	Approval of Plan and Design Report concerning Reservoir Submerging Settlement and Migration Resettlement during the feasibility study stage of Dongping Hydropower plant, Migration Development Bureau of Hunan Province, dated March 30, 2005
29.	Lump Agreement about Reservoir Submerging Settlement and Migration Resettlement Investment, agreement no. DP-C504010, Government of Anhua County, dated October 11th, 2004
30.	Notice concerning printing and distributing <The detailed implementation rules of Migration Resettlement and Compensations> Government of Anhua County dated August 8th, 2005
31.	Local Stakeholder Comments Questionnaire Sample, distributed in June, 2004
32.	Broadcasting Agreement about Inviting Local Stakeholder Comments, dated November 30, 2006
33.	Meeting minutes about inviting local stakeholder comments, dated December 25, 2006

Reference No.	Document or Type of Information
34.	English translation of CDM considering evidences, submitted in April 2007
35.	English translation of IRR benchmark evidence, submitted in April 2007
36.	pdf version of CO2 emission calculation from back-up diesel generator, submitted in April 2007
37.	pdf version of IRR calculation, submitted in April 2007
38.	Project Design Document for CDM project “Hunan Dongping 72MW Hydropower Project”, version 5, dated August 10th, 2007, submitted in August, 2007
39.	*http://www.hhpdi.com/article/showarticle.asp?articleid=683*, the news from the web site of Hunan hydro power research institution, the annual operating hours as 4740 was mentioned. This has been checked by the validation team during the on-site visit.
40.	Footnote No.17, the news from the site *http://www.0733zz.com/news/show1.asp?news=2089*, the original news is from the newspaper of Zhuzhou, the news content mentioned the project Zhuzhouhangdian received 1 billion US dollar as financial support.