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Validation Report

1000842

VALIDATION OF THE CDM-PROJECT:

SHABA 30MW HYDRO POWER PROJECT IN GUIZHOU PROVINCE CHINA

REPORT NO. 1000842

2008, April 21

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Industrie Service

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Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	**TÜV SÜD Contract Partner:** Jiangsu TÜV Product Service Ltd. Shenzen branch Room A01, B01 & B02, 28th Anlian Building No. 4018 Jintian Road 518026 Shenzhen, China
Client: Guizhou Zhongshui Hengyuan Project Management & Consulting Co. Ltd. 6 Floor of Fuzhong Buisiness Building 102 Xinhua Rd., Guiyang, P.R. China	**Project Site(s):** Wuchuan County Zunyi City Guizhou Province, P.R. of China
Project Title: Shaba 30MW Hydro Power Project in Guizhou Province China	
Applied Methodology / Version: **ACM0002 version 06**	**Scope(s):** 1
First PDD Version: Date of issuance: 2007-01-11 Version No.: 3.0 Starting Date of GSP 2007-04-04	**Final PDD version:** Date of issuance: 2007-10-09 Version No.: 4.0
Estimated Annual Emission Reduction: 91,396 tons CO_{2e}	
Assessment Team Leader: Dr. Sven Kolmetz	**Further Assessment Team Members:** Mr Xiong, Rencheng Mr Sebastian Randig

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:

Shaba 30MW Hydro Power Project in Guizhou Province China.

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, 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.*

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**	☑	☑	☑
Mr Tom Xiong	GHG-A	☑	☑	☑
Mr Sebastian Randig	GHG-A	☑	☑	

Dr. Sven Kolmetz is physicist and auditor 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.

Mr. Tom Xiong is an auditor for environmental management systems (according to ISO 14001) at TUV SUD China. He is based in Shenzhen. In his position he is responsible for the implementation of validation, verification and certifications audits for management systems. He has received training in the CDM validation process and participated already in several CDM project assessments.

Sebastian Randig is an 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.

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

On April 26th, 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. Ma Yajun	Guizhou Zhongshui Energy Development Co., Ltd.
Mr. Li Ning	Guizhou Zhongshui Energy Development Co., Ltd.
Mr. Wang Xinhai	Guizhou Zhongshui Energy Development Co., Ltd.
Mr. Mong Xiansheng	Guizhou Zhongshui Energy Development Co., Ltd.
Mr. Fu Qiang	Guizhou Zhongshui Energy Development 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

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 January 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

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

Shaba 30MW Hydro Power Project is located at Wuchuan County, Zunyi City, Guizhou Province, China. It comprises a barrage, water discharge construction, hydropower tunnel, power house, booster substation and electricity transmission lines. The electricity generated by the project is delivered to the 110 kV substation in Wuchuan County through a 110 kV electricity transmission line, and is finally delivered to the China Southern Grid.

Findings

In total the assessment team expressed 2 Clarification Requests and 18 Corrective Action Requests. Besides some minor corrections and formal issues these were the main findings. After closing all the open questions the PDD is in compliance with the CDM requirements.

Baseline calculation

For the BM calculation the PDD adopts modified methods agreed by the EB for the approved methodologies ACM0002. 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 emission reductions are calculated based on the IPCC2006 values and the Chinese yearbooks 2004 – 2006 as published by the Chinese DNA on August 9th 2007. These were the latest available data.

Additionality

The additionality has been evidenced by investment analysis. The benchmark used (IRR) and the IRR calculation will be uploaded together with the PDD. All the figures have been checked and they are consistent with the feasibility report that has been approved by the NDRC besides some minor inconsistencies that do not influence the final result of the investment analysis.

In particular a special focus was put on investigating the source of the IRR calculation, the Preliminary Design Report, hereafter PDR (reference 13), which had received approval of the Development and Reformation Committee of Guizhou Province (reference 14). The PDR contains an economic evaluation of the project, resulting in an IRR of 8.29%. This is an inconsistency compared to the IRR calculation presented in the CDM context amounting 7.28%. It is however considered to be not critical because: a) both IRR calculation results are well below the identified benchmark of 10% and b) two differences in the IRR approach which lead to the difference in the result were identified. At first the PDR IRR calculation does consider a two year construction period instead of three years which is the real value and also the value quoted in other places of the PDR; secondly the not considera-

tion of the VAT in the assessment of the PDR leads to the main increase of the PDR IRR. As VAT should be considered when calculating the IRR, it deems reasonable to accept the different approach.

The consideration of CDM before construction has been confirmed by the Guizhou province development and reform committee region economic office with a document dated on 08.07.04.

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.

Timeline

The Executive Board has raised a request for review in April 2008, following the submission of the project for registration. TÜV SÜD and the PP have submitted a joint response on April 21st, as below:

Issue 1:

The PDD should be revised to comply with the guidelines for completing section B.5., and incorporate a description of the evidence to support the prior consideration of the CDM.

PPs response

The reference of serious CDM consideration has been added as footnote 10 on page 12 of the revised PDD. To further substantiate this evidence we take the opportunity to describe in more detail the progress of the projects implementation.

The PDR was approved in April 2004. The IRR in PDR was low, and the project was thus not financially attractive. In order to solve the financial barrier, the project owner decided to use the CDM to overcome the financial barrier of the project on the board conference held on 1st of July 2004. The application for CDM development of the project was put forward. To accelerate CDM progress, the project owner wished to get the support of Local DRC which is the CDM administration in China and had been looking for the professional CDM consultant.

On 5th July 2004, the project owner submitted an application for CDM to the Local DRC, and on 8th July 2004 got the approval. On 17th August 2004, a consultant was found out and the consultation contract was signed. In the contract the consultant promised that the PDD would be submitted to the NDRC for application of the LoA, and the Emission Reductions Purchase Agreement (ERPA) would be signed within a year.

After serious assessment and consideration of CDM, the bank (Bank of China Zunyi city branch) agreed to provide the loan to the project in September 2004. The project owner was encouraged greatly. The construction started in October 2004 with the financial support of the bank. In December 2004, the purchase contract of the generators and turbines was signed between the project owner and Kunming Mechanical & Electric Co., Ltd.

However, on 17th August 2005 the project owner terminated the consultation contract with the CDM developer because the process of the CDM development was delayed by the consultant. Till January 2006, another consultant was found out and was entrusted to continue developing CDM project and seeking CERs buyer. A buyer was found, MOU and ERPA were signed on 17th August 2006. In January 2007, the PDD and relevant documents were submitted to NDRC. The CDM project was checked up and authorized by the NDRC on 26th April 2007. The LoA of China government was received in July 2007.

The validation on site was implemented on 4th April 2007.

In summary, CDM was seriously considered by the project owner before the decision of the investment. This is justified by negative economic prospects of the project at the time of making the investment decision (compare also to Validation Report page 10 and 11).

The time schedule

No.	Date	Event
1.	27th April 2004	The approval of PDR.
2.	1st July 2004	The board decision to carry out CDM.
3.	17th August 2004	The first consultation contract was signed.
4.	6th September 2004	The bank agreed to provide loan.
5.	28th October 2004	Construction started.
6.	29th November 2004	The first loan contract was signed.
7.	16th December 2004	The purchase contract of the generators and turbines was signed.
8.	10th January 2006	The first consultation contract was terminated by the project owner. A new consultant was found out and singed the new consultation contract with the project owner.
9.	17th August 2006	The MOU was signed and the CER buyer was confirmed.
10.	January 2007	The PDD was completed.
11.	4th April 2007	Validation on site was implemented.
12.	26th April 2007	The CDM project was authorized by NDRC.
13.	16th July 2007	The LoA of China government was received.
14.	5th January 2006	The second loan contract was signed with the amount of 50 million RMB
15.	December 2006	Commissioning date

TÜV SÜD response

The reference of serious CDM consideration has been added as footnote 9 and 10 on page 12 of the revised PDD. Both evidences have previously been checked in the validation of the project. The board decision to implement the project with CDM support had been referred to in Annex 2 of the validation report as reference No. 32 and as mentioned in Chapter 3 of validation report.

Issue 2

The DOE should provide a clear validation opinion of how it has determined that the CDM was seriously considered, and required by the project participant in the decision to proceed with this project activity.

TÜV SÜD response

We appreciate this opportunity to clarify how we have validated the CDM consideration prior to the project start.

There are three main evidences supporting the serious CDM consideration prior to the project start which were all reviewed by DOE and found to be appropriate:

- The board decision to carry out CDM, dated 1st of July 2004 (see annex 2 of validation report, reference 32)
- The application for CDM development and respective approval to and from the local Development and Reform Commission dated 5th and 8th July 2004 respectively (see page 11 of validation report).
- The first consultation contract was signed on August 17th 2004.

The project started construction on 28th of October 2004 which was evidenced by the "Permission for Starting Construction, dated in Oct. 2004" before (see validation report Annex 2, reference 37). It is considered the first real action of the project activity and thus concluded to be the project start. To substantiate this conclusion, we can confirm that two months later, on 16th December, the purchase contract of the generators and turbines was signed which could otherwise also be considered as project starting date.

The low economic projected performance of the project was assessed in detail as documented in the validation report page 10 and 11. We would like to stress that this low economic projection is dated March 2004, and is thus considered to reflect the economic situation of the project at the time when seriously considering the CDM. It is thus deemed appropriate to conclude the serious CDM consideration in summer 2004 is well justified.

PPs response

We confirm DOE's response.

TÜV SÜD concluding remarks

In conclusion to our response to issue 1 and 2 we would like to confirm that in our opinion the project participants have seriously considered the CDM prior to project implementation and hence we submitted the project for registration. Given the circumstances the project faced it is deemed reasonable that CDM validation and request for registration was delayed for several years.

We further would like to stress that our response for project 1560 does not coincidentally describe a very similar timeline. The reason for this similarity is that both projects were developed by the same potential investor, Guizhou Zhongshui Energy Development Co.Ltd. (GZZS). In case of project 1484 it was at first Guizhou Zunyi Zhongshui Hydro Power Development Co.Ltd which was one of GZZS's subsidiary companies before December 2006, and became a branch of GZZS after December 2006.

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_1.aspx?ID=2808&Ebene1_ID=26&Ebene2_ID=849&mode=1	
Starting date of the global stakeholder consultation process: 2007-04-04	
Comment submitted by: -	**Issues raised:** -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

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

Shaba 30MW Hydro Power Project in Guizhou Province China.

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, 2008-04-21

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

Munich, 2008-04-21

Assessment Team Leader

Annex 1: Validation Protocol

Industrie Service

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?		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?		The available PDD is indicated as version 3.0 dated 11/01/2007. CAR 1: A revision history of the PDD should be included.	CAR 1	☑
A.1.3.	Is this consistent with the time line of the project's history?		Yes.	☑	☑
A.2. Description of the project activity					
A.2.1.	Is the description delivering a transparent overview of the project activities?		The project is described transparently and the project activities described have been proven during on-site audit.	☑	☑
A.2.2.	What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?		The project activity is the displacement of electricity generated by coal fired power plants with electricity generated by hydro power. The following data deliver evidences for the project activity: - Feasibility study and its approval - EIA and EIA approval - Agreement of Connection to Grid - Land utilization authorization These data have been evidenced during the audit.	☑	☑
A.2.3.	Is the information provided by these proofs consistent with the information provided by the PDD?		The type of generator provided by PDD does not match with the actual data of installed components. CAR 2:	CAR 2	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Clarify the mismatch between actual data and PDD data The estimated annual grid-connected electricity generation provided by PDD is not consistent with and far low than the data presented in feasibility study report. CAR 3: The estimate annual grid-connected electricity generation should be revised and the estimated annual GHG emission reduction should be recalculated.	CAR 3	
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?		Yes, there are no contradictions in the PDD.		☑
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?		The form is correctly applied.	☑	☑
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?		For the confirmation the MoC and the LoA has to be delivered.	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)?		In annex 1, the project owner is “Guizhou Qiannan Zhongshui Hydro Power Development Co., Ltd. In this chapter it is “Guizhou Zhongshui Energy Development Co., Ltd. In annex 1, the buyer is “Energy Systems Internation, BV”. In this chapter it is “International System Energy Corporation. Under B.7.2, the proposed project owner is “ Libo Lidu Hydro power Development Co. Ltd”. CAR 4	CAR 4	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Above inconsistency should be resolved.		
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 clear identification of the site(s)?		CAR 5 The information provided on the location of the project activity should be in compliance with actual situation, and more detailed.	CAR 5	☑
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.)?		The project was approved by the local Development and Reformation Committee and the EIA of the proposed project was approved by the local Environmental Protection Bureau.	☑	☑
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?		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?		Yes, the project design reflects the current good practices based on the description in feasibility study report and investigation on site. It is a state-of-the-art hydropower station.	☑	☑
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?		Yes, the project activity comprises the use of water power for the substitution of grid supplied electricity mainly from coal fired plants. 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)?		All of elements of the power plant will be made in China, therefore no technology transfer is required.	☑	☑
A.4.3.4. Is the technology implemented by the		There are no obvious environmental issues. The dam is very ro-	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
project activity environmentally safe?		bust, with no moveable parts. There are no villagers living nearby the plant and the power house. According to the EIA there are no environmental risks.		
A.4.3.5. Is the information provided in compliance with actual situation or planning?		The turbine type provided by PDD does not match with the actual data of installed components. See CAR 2	See CAR 2	☑
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?		The common practice for electricity generation is still coal-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?		We do not expect that there will be a substitution of standard high pressure power plant within the project 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?		CAR 6: Please specify the effort to train employees initially and during operation phase.	CAR 6	☑
A.4.3.9. Is information available on the demand and requirements for training and maintenance?		See CAR 6	See CAR 6	☑
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?		The planning schedule in the past and for the future was clearly described by the project owner during the audit, but is not included in PDD. CAR 7: The time schedule of the implementation of the project should be included in the PDD.	CAR 7	☑
A.4.4. Estimated amount of emission reductions over the chosen crediting period				

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?		Yes. The form is correctly applied according to the version 3 of PDD template.	☑	☑
A.4.4.2.	Are the figures provided consistent with other data presented in the PDD?		See CAR 3	See CAR 3	☑
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?		Yes. There is no public funding. 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)?		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?		CAR 8: Version 3 of the Tool for Demonstration and Assessment of Additionality should be applied. The PDD needs to be updated with the newer version.	CAR 8	☑
B.1.2.	Is the applied version the most recent one and / or is this version still applicable?		The methodology used for the proposed project activity is the approved consolidated baseline and monitoring methodology ACM002, version 6. This is the most recent one. However reference is given to version 2 of the "Tool for demonstration and assessment of additionality", where is should be version 3 now. Please see CAR 8	See CAR 8	☑

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<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="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></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></td><td><table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>
There is an inconsistency about reservoir area between the PDD and the official approval.

CAR 9:
Above inconsistency should be resolved and power density should be recalculated based on official data.</td><td>CAR 9</td><td>☑</td></tr>
<tr><td>B.2.3.</td><td>Criterion 2:
Exclusion of fuel switching activities</td><td></td><td><table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.2.4.</td><td>Criterion 3:
Defined electricity grid boundaries</td><td></td><td><table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
</table>

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<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></td><td></td><td></td><td></td><td></td></tr>
<tr><td>B.2.5. Criterion 4:
Approved inclusion in other methodologies (if applied only)</td><td></td><td>Not applicable</td><td>☑</td><td>☑</td></tr>
<tr><td colspan="5">B.3. Description of the sources and gases included in the project boundary</td></tr>
<tr><td>B.3.1. Source:
Fugitive Emissions from non-condensable gases (geothermal activities only)
Gas(es): CO_2, CH_4
Type: Project Emissions</td><td></td><td><table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>N/A</td></tr><tr><td>Inclusion / exclusion justified?</td><td>N/A</td></tr><tr><td>Explanation / Justification sufficient?</td><td>N/A</td></tr><tr><td>Consistency with monitoring plan?</td><td>N/A</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.3.2. Source:
Emissions from combustion of fossil fuels (geothermal activities only)
Gas(es): CO_2
Type: Project Emissions</td><td></td><td><table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>N/A</td></tr><tr><td>Inclusion / exclusion justified?</td><td>N/A</td></tr><tr><td>Explanation / Justification sufficient?</td><td>N/A</td></tr><tr><td>Consistency with monitoring plan?</td><td>N/A</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.3.3. Source:
Emissions from the reservoir (new hydroelectric activities only)
Gas(es): CO_2, CH_4
Type: Project Emissions</td><td></td><td><table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
</table>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.3.4. Source: Emissions from electricity generation in fossil fuel fired power plants of the project electricity system Gas(es): CO_2 Type: Baseline Emissions		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.3.5. Source: Emissions from electricity generation in fossil fuel fired power plants of any connected electricity system Gas(es): CO_2 Type: Baseline Emissions		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		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.3.7. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?		Yes. The project boundary for the proposed project is represented by the South China Power Grid.	☑	☑
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		Yes.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	the grid the activity will be connected to?				
B.4.2.	In case of any modification or retrofit of existing facilities: Is data available to determine the historic production level?		Not applicable.	☑	☑
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?		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?		The project participants will not claim emission reductions resulting from power generation dating from before the date of registration of the CDM activity, so this question is not applicable. Despite this documentation was provided on-site proving that the project activity considered applying CDM at an early stage. It comprises a meeting minute of applying for CDM support dated on April 18, 2004 clearly describing that the decision was made to seriously consider CDM in this context of implementing this project activity by that date.	☑	☑
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?		See B.5.1.	☑	☑
B.5.3.	Have realistic and credible alternatives been identified providing comparable outputs or services? (step 1a)		The following baseline scenarios are discussed: • Construction of a thermal power plant with equivalent amount of installed capacity or annual electricity output;	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			• The proposed project activity not undertaken as a CDM project activity; • Construction of a power plant using other sources of renewable energy with equivalent amount of installed capacity; • Provision of equivalent amount of annual power output by the grid where the proposed project is connected with. Among these scenarios, only the proposed project not as a CDM project and Grid Provision might be realistic and credible alternatives.		
B.5.4.	Is the project activity without CDM included in these alternatives? (step 1a)		Yes.	☑	☑
B.5.5.	Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations? (step 1b)		Yes, only alternative 2, construction of a fossil fuel-fired power plant with equivalent amount of installed capacity or annual electricity, is not in compliance with Chinese regulations according to *Interim Rules on the Installation and Management of Small-scale Fuel-Fired Generators.*	☑	☑
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)		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)?		Yes, the benchmark analysis is applied as suitable analysis method.	☑	☑
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?		Not applicable.	☑	☑
B.5.9.	In case of Option II (investment comparison analysis): Is the most suitable finan-		Not applicable.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	cial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?				
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)?		Yes, the IRR indicator is selected as suitable financial indicator.	☑	☑
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?		The calculation of IRR and NPV is done for the project activity without the revenues from the sales of CERs and with the revenues from the sales of CERs. The calculation has been checked by the DOE.	☑	☑
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) the benchmark IRR should be 10% rather than 8% according to “Economic evaluation code for small hydropower project SL16-95” applied in PDD 2) there is an inconsistency about “annual grid-connected electricity generation” and “CERs price” between table 1 and official approval or purchase contract 3) the IRR without CERs revenues and the IRR with CERs revenues presented in PDD are not consistent with that in IRR calculation sheet, furthermore, in IRR calculation sheet, the IRR in C21 is 6.73%, but it is 6.9% in D29, D31and D33. 4) The project IRR calculation does not meet the benchmark of 10%. Evidence should be provided explaining consistently why the decision was made to invest in this project. This could include for example references to similar projects that have been implemented though the IRR was not exceeding the benchmark. CAR 10: Above inconsistency should be resolved, and updated IRR calculation sheet should be in English and delivered to DOE.	CAR 10	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
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?		Financial barriers due to higher risks and lower return of investment and construction barriers due to the difficult geological conditions are claimed.	☑	☑
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?		Yes, it is.	☑	☑
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?		Barriers analyzed above don't prevent the baseline alternative (Provision of equivalent amount of annual power output by the grid where the proposed project is connected with) from implementation.	☑	☑
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)?		The common practice analysis is not sufficient and related proofs are not available. CAR 11: Please describe in detail how many hydropower plants are installed in project region and whether these plants are economically feasible without CDM. What is the difference of the proposed project and these plants without CDM? Reference documents and data sources must be delivered to DOE. Please revise "Step 4. Comment practice analysis" to "Step 4. Common practice analysis".	CAR 11	☑
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)?		See CAR 11.	See CAR 11	☑
B.5.18. Is it appropriately explained how the ap-		It is explained that the CDM registration will make the project	See	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	proval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?		more financial attractive, but the real impact is not proven. Refer to CAR 10.	CAR 10	
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?		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 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?		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?		Not applicable	☑	☑
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?		Yes, formulae to calculate the baseline emissions are correctly presented.	☑	☑
B.6.1.5.	Is the choice of options to determine the emissions factor (OM, BM) justified in a		Yes. BM calculation method is based on Request for deviation submitted by DNV for projects in China, which was approved by	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	suitable and transparent manner?		EB.		
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?		Not applicable. The default weights for hydropower 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?		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?		The methodology AMS.I.D is applied for calculation of the project mission and leakage, however, the methodology applied for the proposed project given under section B.1 is ACM002. CAR 12: Above contradiction should be resolved.	CAR 12	☑
B.6.1.9.	Are formulae required for the determination of emission reductions correctly presented?		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?		Yes. A list of parameters is clearly presented according to ACM0002.	☑	☑
B.6.2.2.	Is the choice of ex-ante or ex-post vintage of OM and BM factors clearly specified in the PDD?		Yes, the ex-ante calculation of emission factors is chosen.	☑	☑
B.6.2.3.	Parameter Title:			☑	☑

<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>Annual electricity supplied to the grid prior to retrofit
(applicable only for retrofit and modification activities)</td><td></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></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>Yes</td></tr></table></td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.5. Parameter Title:
Operating margin (OM) emission factor of the grid</td><td></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?</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></table></td><td>☑</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.2.6. Parameter Title: Build margin (BM) emission factor of the grid		Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.6.2.7. Parameter Title: fuel consumption of each power source		Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? No Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes CAR 13: The data unit should be correctly expressed.	CAR 13	☑
B.6.2.8. Parameter Title: emission coefficient of each fuel		Data Checklist / Yes / No	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Title in line with methodology? N/A Data unit correctly expressed? N/A Appropriate description of parameter? N/A Source clearly referenced? N/A Correct value provided? N/A Has this value been verified? N/A Choice of data correctly justified? N/A Measurement method correctly described? N/A		
B.6.2.9. Parameter Title: electricity generation of each power source		Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.6.2.10. Parameter Title: surface area of full reservoir level (for new hydroelectric activities only)		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	CAR 14	☑

<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></td><td></td><td>CAR 14:
The surface area of full reservoir level should be included in PDD.</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></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></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>Yes</td></tr></table></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></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></table></td><td>☑</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
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?		Yes.	☑	☑
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?		Yes, but see CAR 3. CAR 15: A mistake in the Calculation of EHy, page 22. The resulting emission factor based on the above presented EFom,y and EFbm,y should be 0.7784 instead of 0.7794. The following calculations should be revised accordingly (and also revised in remaining PDD). The annual emission reduction ERy (85,624tCO2e/MWh) is not equal to the one presented in table B.6.4 (85,642tCO2e/MWh). Please clarify. Where applicable the parameter should be updated using as a source of data also the “China Electric Power Yearbook 2006” and China Energy Statistical Yearbok 2006” that has been already published.	See CAR 3 CAR 15	☑
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?		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?		Yes, emission reduction will be achieved through avoided power generation of fossil fuel electricity due to the power generated by	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		the proposed project.		
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?		Yes, the form is correctly applied according to the PDD template.	☑	☑
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?		Yes.	☑	☑
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?		Yes, but see CAR 3 and CAR 15	See CAR 3 and CAR 15	☑
B.7. Application of the monitoring methodology and description of the monitoring plan				
B.7.1. Data and parameters monitored				
B.7.1.1. Is the list of parameters presented by chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?		CAR 16: The brief statement about the monitoring of the surface area of the reservoir should be included in PDD.	CAR 16	☑
B.7.1.2. Parameter Title: Electricity supplied to the grid		<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>No</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>No</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></table>	CAR 17	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Indication of accuracy provided? — No QA/QC procedures described? — Yes QA/QC procedures appropriate? — Yes CAR 17: The indication of accuracy of the meter should be provided, and the value provided for estimation should be correct. Please explain whether this is the net energy or the gross energy.		
B.7.1.3. Parameter Title: 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)		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	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		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 (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.7.1.6. Parameter Title: Quantity of steam generated during well testing (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	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		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.7.1.7. Parameter Title: Fraction of CO_2 in steam during well testing (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.7.1.8. Parameter Title: Fraction of CH_4 in steam during well testing (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	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		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)		Monitoring Checklist / Yes / No Title in line with methodology? N/A Data unit correctly expressed? N/A Appropriate description of parameter? N/A Source clearly referenced? N/A Correct value provided for estimation? N/A Has this value been verified? N/A Measurement method correctly described? N/A Correct reference to standards? N/A Indication of accuracy provided? N/A QA/QC procedures described? N/A QA/QC procedures appropriate? N/A	☑	☑
B.7.2. Description of the monitoring plan				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisoned situation?		Yes, the operational and management structure clearly described and in compliance with the envisioned situation. A full monitoring plan is not yet available and should be presented at the latest at the time of the initial verification audit.	☑	☑
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?		Yes.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.2.3. Does the monitoring plan provide current good monitoring practice?		Yes.	☑	☑
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisoned monitoring provisions?		No, annex 4 didn't provide any useful information enabling a better understanding of the envisioned monitoring provisions. CAR 18: A diagram of the location of the power meters should be included. It should be transparent that for the calculation of the emission reduction only the net electricity generation will be used.	CAR 18	☑
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?		Yes, the 11/01/2007.	☑	☑
B.8.2. Is this consistent with the time line of the PDD history?		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?		Mr. He junyuan and Mr. Ma Yajun from Guizhou Hengyuan Project Management and Consulting Co. Ltd determined the baseline and monitoring methodology.	☑	☑
B.8.4. Is information provided whether this person / entity is also considered a project participant?		The mentioned persons are no project participants.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
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?		The project starting date is given as 01/02/2007 and the operational lifetime is expected to be 50 years. CR 1: Please clarify what activity is linked with the starting date.	CR 1	☑
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. 10 years)?		Renewable crediting period (7 years) with potential for 2 renewals is chosen as the crediting period.	☑	☑
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?		Yes, the environmental impacts of the project activity during construction and operation period 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?		Yes, EIA is a must in P. R. China for new hydro power projects. The EIA of the proposed project was approved by the relevant authorities. The documents have been reviewed by the DOE.	☑	☑
D.1.3. Will the project create any adverse environmental effects?		Referring to the EIA and the approval of EIA, the project will create no significant negative environmental impacts.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
D.1.4. Were transboundary environmental impacts identified in the analysis?		The proposed hydropower plant is located within China, and it has no transboundary environmental impacts; hence this section is not applicable.	☑	☑
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?		Referring to the EIA and the approval of EIA, there is no adverse environmental impact from the project activity. The impact on irrigation water for farmer will be taken care of by a separate agreement between the affected villagers and project owner. This agreement has not yet been signed.	☑	☑
D.2.2. Does the project comply with environmental legislation in the host country?		Yes, the project is in conformity with the environmental legislation of P. R. China and the EIA has been approved by the 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?		The relevant stakeholders in the two affected villages have been informed rather late. They had no opportunities to bring in their views and concerns. Questionnaires were handed over only to selected people. However, the village leader and interviewed villagers agreed that the hydropower plant will bring (or already has brought) many advantages and that therefore everybody supports its construction. Everybody has improved his living environment. The audit team therefore considers the aspects of stakeholder consultation as still acceptable.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
E.1.2. Have appropriate media been used to invite comments by local stakeholders?		In the PDD a short term information in newspaper and internet information have been mentioned. There are certainly no appropriate media to invite comments from two distant villages. However, as mentioned in section E.1.1, the impact of project can be largely neglected due to the overwhelming advantages of the project for local villagers.	☑	☑
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?		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?		See E.1.1 / E.1.2 CR 2: According to the description in section E.2., 30 questionnaires were distributed to the local people, and all questionnaires had been return. Please explain why only 10 person's comments on the item 4 "the environment factors that may restrict the construction of the proposed project" were collected and summarized.	CR 2	☑
E.2. Summary of the comments received				
E.2.1. Is a summary of the stakeholder comments received provided?		E.2. and E.3. of the PDD give a summary of those stakeholders comments received by questionnaires.	☑	☑
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?		All stakeholder comments are positive, no action has been taken.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
F. Annexes 1 – 4					
Annex 1: Contact Information					
F.1.1.	Is the information provided consistent with the one given under section A.3?		See CAR 4	See CAR 4	☑
F.1.2.	Is the information on all private participants and directly involved Parties presented?		Yes.	☑	☑
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?		Yes. There was no public funding.	☑	☑
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?		See F.1.3	☑	☑
Annex 3: Baseline information					
F.1.5.	If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?		There is no background information given in Annex 3. CAR 19: The background information on baseline data should be presented in PDD, and the data should can be verifiable and support statements given in other section of the PDD.	CAR 19	☑
F.1.6.	Is the data provided verifiable? Has sufficient evidence been provided to the vali-		See F.1.5	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	dation team?				
F.1.7.	Does the additional information substantiate / support statements given in other sections of the PDD?		See F.1.5	☑	☑
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?		There is no background information given in Annex 4. Please see CAR 18	CAR 18	☑
F.1.9.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?		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?		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 3.0 dated 11/01/2007. **CAR 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.	☑
The type of generator provided by PDD does not match with the actual data of installed components. **CAR 2:** Clarify the mismatch between actual data and PDD data	A.2.3 A.4.3.5	The data of the generators are corrected in the table 1 of the revised PDD.	☑
The estimated annual grid-connected electricity generation provided by PDD is not consistent with and far lower than the data presented in feasibility study report. **CAR 3:** The estimate annual grid-connected electricity generation should be revised and the estimated annual GHG emission reduction should be recalculated.	A.2.3 A.4.4.2 B.6.4.4 B.6.3.2	The expected annual grid-connected electricity generation of the proposed project is 121,320 MWh. The data is corrected in the revised PDD, and the estimated annual GHG emission reduction is corrected too.	☑

In annex 1, the project owner is "Guizhou Qiannan Zhongshui Hydro Power Development Co., Ltd. In this chapter it is "Guizhou Zhongshui Energy Development Co., Ltd. In annex 1, the buyer is "Energy Systems International, BV". In this chapter it is "International System Energy Corporation. Under B.7.2, the proposed project owner is " Libo Lidu Hydro power Development Co. Ltd". **CAR 4** Above inconsistency should be resolved.	A.3.3 F.1.1	The correct name of the project owner is Guizhou Zhongshui Energy Development Co., Ltd, and the correct name of the buyer is Eco Asset Inc. The names of project owner and buyer are corrected in the revised PDD.	☑
CAR 5 The information provided on the location of the project activity should be in compliance with actual situation, and more detailed.	A.4.1.1	The proposed project is located in Wuchuan County, Zunyi City which is in the northeastern of Guizhou Province. The proposed project is 9 km away from Wuchuan County and 191 km away from Zunyi City. The geographical coordinates of the proposed project are 107°54′39″E and 28°28′49″N. The location of the proposed project is marked clearly in map in the revised PDD.	☑
CAR 6: Please specify the effort to train employees initially and during operation phase.	A.4.3.8. A.4.3.9.	The professional technicians and engineers will train the hydropower plant staffs about the monitoring procedures, operation regulation, maintenance procedures and other required knowledge regarding the hydropower plant before the start of operation of the project. Furthermore, there will be regular training courses regarding monitoring and operation for plant staffs during operation period. The training is specified in the revised PDD.	☑

The planning schedule in the past and for the future was clearly described by the project owner during the audit, but is not included in PDD. **CAR 7:** The time schedule of the implementation of the project should be included in the PDD.	A.4.3.10.	The time schedule of the implementation of the project is included into the table 2 of the revised PDD.	☑
CAR 8: Version 3 of the Tool for Demonstration and Assessment of Additionality should be applied. The PDD needs to be updated with the newer version.	B.1.1 B.1.2	The version 3 of "Tool for the demonstration and Assessment of Additionality" is updated in the revised PDD.	☑
There is an inconsistency about reservoir area between the PDD and the official approval. **CAR 9:** Above inconsistency should be resolved and power density should be recalculated based on official data.	B.2.2	The surface area at the full reservoir level of the project will be 4.12 km^2, which is quoted from Preliminary Design Report of Shaba Hydropower Plant. The power density of the project is 7.28 W/m^2.	☑

1) the benchmark IRR should be 10% rather than 8% according to "Economic evaluation code for small hydropower project SL16-95" applied in PDD 2) there is an inconsistency about "annual grid-connected electricity generation" and "CERs price" between table 1 and official approval or purchase contract 3) the IRR without CERs revenues and the IRR with CERs revenues presented in PDD are not consistent with that in IRR calculation sheet, furthermore, in IRR calculation sheet, the IRR in C21 is 6.73%, but it is 6.9% in D29, D31and D33. 4) the project IRR calculation does not meet the benchmark of 10%. Evidence should be provided explaining consistently why the decision was made to invest in this project. This could include for example references to similar projects that have been implemented though the IRR was not exceeding the benchmark. **CAR 10:** Above inconsistency should be resolved, and updated IRR calculation sheet should be in English and delivered to DOE.	B.5.12 B.5.18	**PPs Response:** According to *Economic Evaluation Code for Small Hydropower Projects* (SL16-95) approved by Water Resources Ministry of P. R. China, the financial benchmark internal rate of return (after tax) of total investment for Chinese small hydropower projects (with installed capacity below 50 MW) is 10%. The expected annual grid-connected electricity generation of the proposed project is 121,320MWh. The data is corrected in the revised PDD. The correct CERs price is used for IRR calculation in the revised PDD. The recalculated IRR excel document is provided to DOE and the IRR data is corrected in the revised PDD. The proof documents of CDM consideration is provided to DOE together with the revised PDD. **DOEs first response:** The above was found to be correct. However another issue was clarified: The Preliminary Design Report, dated in March, 2004 (Reference 13) is listing the relevant data which is applied by the PPs to demonstrate the economically weakness of the project. Later in the same document it is demonstrated that the economic assessment of the Preliminary Design Report lead to a higher IRR (8.29). This is an inconsistency compared to the IRR calculation presented in the CDM context amounting 7.28%. It is however considered to be not critical. For detailed discussion please refer to Chapter 3 of the report.	☑

The common practice analysis is not sufficient and related proofs are not available. **CAR 11:** Please describe in detail how many hydropower plants are installed in project region and whether these plants are economically feasible without CDM. What is the difference of the proposed project and these plants without CDM? Reference documents and data sources must be delivered to DOE. Please revise "Step 4. Comment practice analysis" to "Step 4. Common practice analysis".	B.5.16. B.5.17	The common practice is updated in the revised PDD. The data in the common practice is referred to the public information about the hydropower plant in Guizhou Province.	☑
The methodology AMS.I.D is applied for calculation of the project mission and leakage, however, the methodology applied for the proposed project given under section B.1 is ACM0002. **CAR 12:** Above contradiction should be resolved.	B.6.1.8	The ACM0002 is used for emission reductions calculation in the revised PDD.	☑
CAR 13: The data unit should be correctly expressed.	B.6.2.7	The data units are corrected in the revised PDD.	☑
CAR 14: The surface area of full reservoir level should be included in PDD.	B.6.2.10	The surface area of full reservoir level is included in the revised PDD.	☑

CAR 15: A mistake in the Calculation of EHy, page 22. The resulting emission factor based on the above presented EFom,y and EFbm,y should be 0.7784 instead of 0.7794. The following calculations should be revised accordingly (and also revised in remaining PDD). The annual emission reduction ERy (85,624tCO2e/MWh) is not equal to the one presented in table B.6.4 (85,642tCO2e/MWh). Please clarify. Where applicable the parameter should be updated using as a source of data also the "China Electric Power Yearbook 2006" and China Energy Statistical Yearbok 2006" that has been already published.	B.6.3.2 B.6.4.4	The emission factor of China Southern Power Grid is recalculated in the revised PDD by using the latest NDRC' data.	☑ The revised data are the latest available one as published by the Chinese DNA
CAR 16: The brief statement about the monitoring of the surface area of the reservoir should be included in PDD	B.7.1.1	According to ACM0002, the data is needed to be monitored only one time before the operation. The surface area of the reservoir is quoted from the *Preliminary Design Report*,	☑
CAR 17: The indication of accuracy of the meter should be provided, and the value provided for estimation should be correct. Please explain whether this is the net energy or the gross energy.	B.7.1.2	The accuracy of the meters is included in the revised PDD, and the value for estimation is corrected in the revised PDD. The value of electricity generated is net energy.	☑

No, annex 4 didn't provide any useful information enabling a better understanding of the envisioned monitoring provisions. **CAR 18:** A diagram of the location of the power meters should be included. It should be transparent that for the calculation of the emission reduction only the net electricity generation will be used.	B.7.2.4 F.1.8	The diagram of the location of the meters is included in the revised PDD and only the net electricity generation will be used for emission reductions calculation.	☑
There is no background information given in Annex 3. **CAR 19:** The background information on baseline data should be presented in PDD, and the data should can be verifiable and support statements given in other section of the PDD.	F.1.5	The basic data about baseline and power grid emission factor calculation is included in Annex 3. All these data are quoted from the latest data.	☑
The project starting date is given as 01/02/2007 and the operational lifetime is expected to be 50 years. **CR 1:** Please clarify what activity is linked with the starting date.	C.1.1	The construction starting date of the proposed project is 28/10/2004 and the lifetime of the proposed project is 30 years.	☑

CR 2: According to the description in section E.2., 30 questionnaires were distributed to the local people, and all questionnaires had been return. Please explain why only 10 person's comments on the item 4 "the environment factors that may restrict the construction of the proposed project" were collected and summarized.	E.1.4	There are totally 31 questionnaires were distributed to the local people. The answers to the item "the environment factors that may restrict the construction of the proposed project" are corrected in the revised PDD.	☑

Annex 2: Information Reference List

Reference No.	Document or Type of Information
1	Project Design Document for CDM project "Shaba 30MW Hydro Power Project in Guizhou Province China", version 3.0, submitted in Jan., 2007
2	Consolidated baseline methodology for grid-connected electricity generation from renewable sources, version 06.
3	Tool for the demonstration and assessment of additionality, version 03.
4	Participant list of on-site interview, signed on April 3, 2007
5	On-site interviews and inspection conducted on April 3, 2007 by validator of TUV-SUD. Validation team: Mr. Tom Xiong TUV-SUD Shenzhen Interviewed persons: Mr. Ma Yajun Guizhou Zhongshui Energy Development Co., Ltd. Mr. Li Ning Guizhou Zhongshui Energy Development Co., Ltd. Mr. Wang Xinhai Guizhou Zhongshui Energy Development Co., Ltd. Mr. Mong Xiansheng Guizhou Zhongshui Energy Development Co., Ltd. Mr. Fu Qiang Guizhou Zhongshui Energy Development Co., Ltd.
6	Approval of Shaba 30MW Hydro Power Project, dated on Dec. 4, 2003, Development and Reformation Committee of Guizhou Province, file number: No.1304 Qan Ji Long Jing [2003].
7	Feasibility Study Report, dated in Feb. 2004.
8	Approval of Feasibility Study Report, dated on April 19, 2004, Development and Reformation Committee of Guizhou Province, file number: No.343 Qan Ji Long Jing [2004].
9	EIA, dated in March, 2004.
10	Approval of EIA, dated on May 20, 2004, Environmental Protection Bureau of Guizhou Province, file number: No.93 Qian Huan Hai [2004].
11	Water & Soil Conservation Program, dated in March, 2004.

Reference No.	Document or Type of Information
12	Approval of Water & Soil Conservation Program, dated on April 13, 2004, Water Conservancy Department of Guizhou Province, file number: No.10, Qian Shui Bao [2004].
13	Preliminary Design Report, dated in March, 2004.
14	Approval of Preliminary Design Report, dated on April 27, 2004, Development and Reformation Committee of Guizhou Province, file number: No.413 Qian Ji Jian She [2004].
15	Migration Approval, dated on March 1, 2007, Muguan Government of Guizhou Province, file number: No. 16 Ma Pi Zi [2007]
16	Agreement on connection to grid, signed on Jan.27, 2005, signed by Zhongshui Energy Development Co., Ltd. and Power Supply Company of Zunyi City.
17	River Basin Development Plan, dated on July 30, 2003.
18	Approval of River Basin Programming, dated in 2001, Water Conservancy Department of Wenshan City.
19	The Pre-view Report of Land expropriation, dated on Jul.12, 2007, Land Management Department of Guizhou Province, file number: No.85 Qian Guo Tou Zi Gui Hua Han [2004].
20	Loan Contract, dated on Nov.29, 2004, signed by Zhongshui Energy Development Co., Ltd. and Zunyi Branch of China Bank.
21	Loan Contract, dated on Jan.5, 2006, signed by Zhongshui Energy Development Co., Ltd. and Wuchuan Branch of Agricultural Bank of China.
22	Agreement on Compensation for Land Expropriation and Resettlement, dated on Dec.28, 2006, signed with Government of Dejiang County, file number: SB-YM-200614.
23	Agreement on Compensation for Land Expropriation and Resettlement, dated on Feb.6, 2007, signed with Government of Wuchuang County, file number: SB-YM-2007-01
24	Emission Reduction Purchase Contract, dated in July, 2007, signed with Eco Asset Inc.
25	Interim Rules on the Installation and Management of Small-scale Fuel-fired Generator, dated in August 1997.
26	The Revision of Economic Evaluation Code for Small Hydropower Project (SL16-95)
27	IRR calculation sheet
28	Bank Credit Policy Direction in 2005

Reference No.	Document or Type of Information
29	China Energy Statistical Yearbook (2002/2003/2004/2005/2006)
30	China Electric Power Yearbook(2002/2003/2004/2005/2006)
31	Questionnaire of local stakeholder comments.
32	Meeting Minute of Decision to Apply for CDM Support, dated on July 5, 2004
33	National Statistics Express of Power Industry in 2006.
34	Notice on Strictly Prohibiting the Construction of Thermal Power Plants with Installed Capacity of 135 MW or below.
35	Almanac of Chinese Water Power
36	China Water Resources Year Book 2006
37	Permission for Starting Construction, dated in Oct. 2004
38	Project Design Document for CDM project "Shaba 30MW Hydro Power Project in Guizhou Province China", version 4.0, submitted in December, 2007.