



VALIDATION REPORT

For the CDM Project Activity

**Yunnan Province Luxi City Wanma River 2nd
Level Hydropower Station**

**in
P.R. China**

Report No. 01 997 9105049757
Version No. 03.1, 2009-11-08

TÜV Rheinland Guangdong Ltd.

I. Project description:

Project title:	Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station
Host Country:	China
Methodology:	"Consolidated baseline methodology for grid-connected electricity generation from renewable sources" ACM0002, version 7 <input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale
Annual average emission reductions (estimate):	72,824tCO ₂ e /yr
GHG reducing measure/technology:	Displacing fuel-fired based grid power generation with renewable hydro energy.

Party	Project Participants	Party considered a project participant
P.R. China (Host)	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	No
Japan (Annex 1 party)	Electric Power Development Co., Ltd.	No

II. Validation:

Contract party: Electric Power Development Co., Ltd.

Validation Team:

Role	Full name	Appointed for Sectoral Scopes	Affiliation
Team Leader	Zhou Kai	1, 5	TÜV Rheinland (Guangdong) Ltd.
Technical Reviewer	Dr. Manfred Brinkmann	1, 3, 4, 5, 6, 10, 11, 12, 13	TÜV Rheinland Japan Ltd.

Validation Phases:

- ☒ Desk Review
☒ Follow up interviews
☒ Resolution of outstanding issues

Validation Status:

- ☒ Corrective Actions / Clarifications Requested
☒ Full Approval and Submission for Registration
☐ Rejected

III. Validation Report:

Report No.: 01 997 9105049757	Current revision No.: 03.1	Date of current revision: Nov. 8, 2009	Date of first issue: Dec 16, 2008
Distribution:			
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Final approval:	Released on:	Designated Operational Entity (DOE):
<input checked="" type="checkbox"/>	Nov. 8 2009	TÜV Rheinland Japan Ltd. Shin Yokohama Daini Center Bldg., 3-19-5, Shin Yokohama Kohoku-ku, Yokohama, JAPAN 222-0033 Tel.: +81 45 470 1850, Fax: +81 45 470-2361 E-mail: cdm@tuv.com

EXECUTIVE SUMMARY – VALIDATION OPINION

The DOE (TÜV Rheinland Japan Ltd.) has performed a validation of the “Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station” in China. The validation was performed on the basis of UNFCCC criteria for the Clean Development Mechanism and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation and the subsequent follow-up interviews have provided the DOE with sufficient evidence to determine the fulfilment of the stated criteria.

The host country of the proposed project is P.R China and the Annex I country is Japan. Both countries fulfil the participation criteria and have approved the project and authorized the project participants. The DNA from P.R China, i.e. NDRC, confirmed that the project assists in achieving sustainable development.

The validation was executed in the following steps so far:

- Public stakeholder comment process (from Oct. 8 2008 to Nov. 6 2008)
- Desk review of preliminary PDD (Sep. 25 2008)
- On-site visit with stakeholder interviews (Nov. 18-19 2008)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report & protocol (Dec. 16 2009)
- Desk review of revised PDD (July 7 2009)
- Review of proposed corrections and clarifications (August 03 2009)
- Issue of the final validation report & protocol

The validation did not reveal any information that indicates that the project can be seen as a diversion of ODA funding towards China. It is also reflected from the company's business license /13/, articles of association /14/ and the financial audit report /34/ in which it is showed that the capital structure only comprises of own funds and bank loan.

The project correctly applies the methodology ACM0002/Version 07/2/ – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”.

This report summarizes the results of the document review, background investigation, follow-up interviews with local stakeholders and the staff at the project site during the visit to the project. This process enabled the team to conduct a risk-based review of material issues with impact on future claims of the emission reduction from the project activity.

The concerns thereof, in the form of validation findings have been registered in the Validation Protocol.

Through to generate renewable energy from clean hydro resource, which displaces grid electricity, the project results in reductions of CO₂ emissions which are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project 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.

The total emission reductions from the project are estimated to be on the average 72,824tCO₂e per year over the selected 7-year renewable crediting period. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

Adequate monitoring and training procedures are described in the PDD/10/. As the project is not operated yet when auditing on site, the detailed training plan and records are not available. But the project manager claimed that the training records and the qualification certificates will be available for DOE during verification stage.

The project proponent has resolved all Corrective Action Requests and Clarification Requests as stated in the Validation Protocol, which has resulted in a revision of the PDD. In the opinion of the DOE (TÜV Rheinland Japan Ltd.), the revised PDD/10/meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology. Therefore, the DOE TÜV Rheinland Japan Ltd. recommends the proposed project “Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station” to be registered as a CDM project activity with UNFCCC.

Abbreviations

Explain any abbreviations that have been used in the report here.

BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CCPG	Central China Power Grid.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CM	Combined Margin
CO2	Carbon Dioxide
CPI	Consumer Price Index
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
DRC	Development and Reform Commission
EB	Executive Board
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
ER	Emission Reduction
ERPA	Emission Reduction Purchase Agreement
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse Gas
GWh	Giga Watt Hours
I	Interview
IM	Interim Measures for Operation and Management of CDM projects
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
kW	Kilo Watt
kWh	Kilo Watt Hours

L	Leakage
LoA	Letter of Approval
LoI	Letter of Intent
MoV	Means of Verification
MW	Mega Watt
MWh	Mega Watt Hours
NC4	National Coordination Committee on Climate Change
NDRC	National Development and Reform Commission
NGO	Non Government Organisation
NOx	Nitrogen Oxides
O&M	Operation & Maintenance
ODA	Official Development Assistance
OM	Operating Margin
OSV	On Site Visit
PDD	Project Design Document
PDR	Preliminary Design Report
PE	Project Emission
RPI	Retail Price Index
SA	Sensitivity Analysis
SCPG	South China Power Grid
SlitC	Supplier Information to Client
SO2	Sulphur Dioxide
SthS	Stakeholder Survey
t	Tonne
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added Tax

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Appendix A: Validation Protocol

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1 INTRODUCTION

The organization “Electric Power Development Co., Ltd” in Japan has commissioned the DOE TÜV Rheinland Japan Ltd. to perform a validation of the CDM Project Activity “Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station” in P.R China (hereafter called “the project”). This report summarises the findings of the validation of the project, performed on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. The term “UNFCCC criteria” refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures or the simplified modalities and the subsequent decisions by the CDM Executive Board.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board, including the approved baseline and monitoring methodology. The validation team has, based on the recommendations in the Validation and Verification Manual /1/ employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs.

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

2 METHODOLOGY

The validation consists of the following three phases:

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

The following sections outline each step in more detail.

2.1 Desk Review of the Project Design Documentation

The following table outlines the documentation reviewed during the validation:

No	Title of the reviewed documentation/ document number or version	Date of issuance	Editor/issuer
1	Validation and Verification Manual.	28-Nov-08	International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF)
2	ACM0002,Version 7	Valid from 14 Dec 07 to 04 Dec 08	EB 36
3	Methodological Tool "Tool for the demonstration and assessment of additionality" (Version 5.2)	26-Aug-08	EB 39 Report Annex 10
4	Methodological tool "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" (Version 02)	2-Aug-08	EB 41, Annex 11
5	Methodological tool (Version 1.1) "Tool to calculate the emission factor for an electricity system"	29-Jul-08	EB35 Annex 12
6	the GUIDANCE ON THE DEMONSTRATION AND ASSESSMENT OF PRIOR CONSIDERATION OF THE CDM	2-Aug-08	EB 41, Annex 46, page 1
7	The Glossary of CDM terms (version 04)	2-Aug-08	EB41, Annex Para.67
8	The Guidance on the Assessment of Investment Analysis version 02	26-Aug-08	EB39,Annex 10,page 12
9	GSP Version: 2.0	19-Sep-08	Beijing Tianqing Power International CDM Consulting Co., Lt
10	Final PDD/Version: 4.0	06-Nov.-09	Beijing Tianqing Power International CDM Consulting Co., Lt

11	Letter of Approval (China) (Document no.: 1461),	Oct-2008	The National Development and Reform Commission of The People's Republic of China (i.e. China DNA)
12	Letter of Approval (Japan)	8-Dec-08	Minister of Economy, Trade and Industry
13	BUSINESS LICENSE OF THE ENTERPRISE JURIDICAL PERSON	4-Apr-07	The Bureau of Luxi Industrial and Commercial Administration
14	articles of association	Nov. 5 -08	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.
15	River Basin Planning Report Of Exploring Water Resource Of Wanma River	10-May-04	Water Resources and Electric Institute, Dehong Branch
16	Feasibility Study Report Of Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	May-2007	Water Resources and Electric Institute, Dehong Branch
17	Approval Of Feasibility Study Report Of Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	27-Jul-07	Development and Reform Commission, Dehong Branch
18	Environmental Impact Assessment Of Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	18-Dec-04	Environmental Science Research Institute, Dehong Branch
19	Qualification of EIA writer	26-Nov-01	Ministry of Environmental Protection of the People's Republic of China
20	Approval Of EIA	6-Mar-08	Environmental Protect Bureau, Dehong Branch
21	Construction Approval Of Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	21-Jan-08	Development and Reform Commission, Dehong Branch
22	The meeting of Directorate	7-Jun-07	Directorate
23	Certified Emission Reductions Purchase And Sale Agreement	Aug-2008	Luxi City Qinrui Wanma River Power Exploring Co., Ltd. & Electric Power Development Co., Ltd.
24	Construction Commencement Order Of Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	20-Jan-08	Yunnan Kunming Haidian Water Resources and Hydropower Project Construction and Management Consulting Co., Ltd
25	Grid connection agreement	20-Sep-07	Yunnan Dehong Power Co. LTD & Luxi Qinrui Wanma River Power exploiting Co.LTD
26	Notice Of The Local Tariff	17-Dec-03	Dehong Prefecture Government
27	Purchasing Agreement For Generation Units	8-Oct-07	Chongqing Yunhe Hydropower Equipments Co., Ltd.
28	Purchasing Agreement For Main Transformer	16-Feb-08	Tongbian Electric Apparatus Co., LTD

29	Plant Construction Contract	7-Dec-07	Luxi City Qinrui Wanma River Power Exploring Co., Ltd. & Yunnan Beishui Engineering and Construction Co.,Ltd
30	Approval of Water Resources Assessment	4-Feb-05	Ministry of Water Resources in Dehong
31	Land Survey Report	21-Nov-07	The ministry of Land and Resources Of Dehong Prefecture
32	Resettlement planning	4-Feb-08	Dehong Resettlement Development Bureau
33	Bank Loan Approval Contract	5-May-08	Bank Of China,Dehong Branch
34	Financial audit report	8-July -08	Provided by the project owner
35	Request for Government support	12-Jun-07	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.
36	Government support	2-Jul-07	Government of Luxi
37	CDM Project Commission Letter	22-Jun-07	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.
38	Wanma river LOI	15-Jan-08	Sumie Nakayama
39	CDM cooperation contract	12-Mar-08	Luxi City Qinrui Wanma River Power Exploring Co., Ltd. & Beijing Tianqing Power International CDM Consulting Co., Lt
40	PDD development agreement	10-Sep-07	Luxi City Qinrui Wanma River Power Exploring Co., Ltd. & Beijing Tianqing Power International CDM Consulting Co., Lt
41	Stakeholder Consulting Meeting evidences	1-Jan-08	Government of Luxi
41	Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station Finance Analysis	14-Oct-08	Beijing Tianqing Power International CDM Consulting Co., Lt
42	Economic Evaluation Code for Small Hydropower Projects (Ref no.: SL16-95),	2-Jun-95	Ministry of Water Resources in P. R. China,
43	SCPG-EF Calculation	6-Nov-08	Beijing Tianqing Power International CDM Consulting Co., Lt
44	SL22-92 (Regulation of Development Programming of Electrical Power in the Region Mainly Supplied by Rural Hydropower)	18-Apr-92	Ministry of Water Resources of China
45	Technical Specification Of Generation Units And Accessories	6-Oct-07	Chongqing Yunhe Hydropower Equipments Co., Ltd.
46	IRR calculation worksheet	31-Jul-09	Beijing Tianqing Power International CDM Consulting Co., Lt

47	Electric Power System Reform Blue Print	10-Feb-02	State Council
48	Economical Assessment Temporary Regulation on Electrical Technology Improvement Project	02-Aug-92	China Electric Power Press
49	Yearbook of China Water Resources	2006-2007	China Water Power Press
50	China Electric Power yearbook	2003-2007	China Electric Power Publishing House Co., Ltd
51	China Energy Statistical Yearbook	2005-2007	China Statistics Press

Remark: Throughout the validation report if the contents of the above documentation list are quoted, the code of the quoted contents will be used.

2.2 Follow-up Interviews with Project Stakeholders

Identify any personnel who have been interviewed and/or provided additional information to the presented documentation.

No.	Name	Organization	Title
I	Mr.Li zihuan	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	Chairman
II	Ms.Tan wenbin	Beijing Tianqing Power International CDM Consulting Co., Ltd.	Consultant
III	Ms.Jiang dongkui	Beijing Tianqing Power International CDM Consulting Co., Ltd.	Consultant
IV	Mr.Wang liang	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	secretary of the board
V	Mr.Yang chonghe	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	Cheif Financial Officer
VI	Mr.Yang xingjie	Ministry of Land and Resources Of Luxi city	Deputy Section Chief
VII	Mr. Xu Yong	Bank of China DeHong Branch	client manager
VIII	Mr. Tian Zirong	Power Supply Company of Luci city	Deputy Manager
IX	Mr. Bao Kongkan	Environmental Protection Bureau of Luxi	deputy director
X	Mr. Fan Jie	Environmental Protection Bureau of Luxi	section chief
XI	Mr. Liu Zhaogang	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	Chief Engineer
XII	Mr. Huang Guoda	Luxi City Qinrui Wanma River power station Engineering Department	Senior engineer
XIII	Mr. Qiao Yuxiang	Development & Reform Bureau of Luxi	Section Chief

Interview topics:

Date/ Time	Organizational Unit and/or Processes	Auditor (short name) Contact Person	Topics
Nov.5 8:00- 11:00	Travel from Mangshi to the plant site		
11:00- 12:30	Project site tour and assessment	DOE/ MR/ Technical Manager/Consultant	Determinate of project environmental impacts Overview of the area and plant, existing and planned installations especially turbines, weir, reservoir, tunnel Project Design and Technology used at the project site Main control buildings, operating personal Monitoring procedures and the responsible persons, installed measuring meters
12:30- 13:30	Lunch break		
13:30- 15:30	Visit the local villagers		Stakeholders' comments
15:30- 18:30	Travel back to Mangshi city		
Nov. 6/9:00- 12:00	Management Representative, Managers and Topmanagement as Needed/Chapter A and C	DOE/ Management Representative (MR)/ Consultant	Opening meeting/ Debriefing on the proposed project operation (including Project Planning, investors, time schedule, permissions, risks for delays, location, technical information, service and maintenance, technology transfer/ assembling socio economic aspects) Project financial condition -Additionality -management decisions -agreements, feasibility reports project barriers and risks Project Monitoring Document Requisition
12:00- 13:00	Lunch break		
13:00- 16:00	Local Stakeholder Interview/ Chapter D and Chapter E	DOE/ MR/ Consultant/Local stakeholders	Local Government, I.e. local DRC, EPA; loaned bank(s); power company, Villagers. (please refer to Stakeholder Interview List) Monitoring of Sustainable Development Indicators environmental impacts WCD Audit Stakeholder Comments - results/record - invitation to the meeting -participant list -summary of the meeting Further Document Requisition

16:00-17:30	GHG Reduction Calculation Monitoring Plan assessment PDD Desktop Discussion / Chapter B / Annex 3 and Annex 4	DOE/ Consultant	Calculation table check-up confirmation of baseline emissions emission reduction amount Q&A of PDD Monitoring plan assessment (including monitoring equipment, plan and data logging system) Monitoring methodology and plan Realistic and envisioned implementation Quality assurance procedures Calibration, data recording and storage
17:30-18:00	Management Post-interview	DOE/ MR/ Consultant	Q&A about plant visit Project Monitoring Further Document Requisition
18:00-18:30		DOE/ MR/ Consultant	Closing session (summary of the achieved findings and results / conclusions / next steps) Document & Reference Check
18:30-	End of the Assessment		

2.3 Resolution of Outstanding Issues

The objective of this phase of the validation is to resolve any outstanding issues which need be clarified prior to TÜV Rheinland's positive conclusion on the project design. In order to ensure transparency a validation protocol is customised for the project. The protocol shows in transparent manner criteria (requirements), means of verification 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 two tables. The different columns in these tables are described in the figure below. The completed validation protocol for this project is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfilment of CDM criteria or where a risk to the fulfilment of project objectives is identified.

Corrective action requests (CAR) are issued, where:

- mistakes have been made with a direct influence on project results;
- CDM and/or methodology specific requirements have not been met; or
- There is a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

A request for clarification (CL) may be used where additional information is needed to fully clarify an issue.

Validation Protocol Table 1: Requirement checklist				
Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
<i>The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organised in different sections, following the logic of the large-scale PDD template, version 03 - in effect as of: 28 July 2006. Each section is then further sub-divided.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found.</i>	<i>Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.</i>	<i>This is either acceptable based on evidence provided (OK), or a corrective action request (CAR) due to non-compliance with the checklist question (See below). A request for clarification (CL) is used when the validation team has identified a need for further clarification.</i>

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Validation conclusion
<i>If the conclusions from the draft Validation are either a CAR or a CL, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the CAR or CL is explained.</i>	<i>The responses given by the project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".</i>

Figure1. Validation protocol tables

2.4 Internal Quality Control

The final validation report underwent another technical review before requesting registration of the project activity. The technical review was performed by a technical reviewer qualified in accordance with TÜV Rheinland's qualification scheme for CDM validation and verification.

Validation TeamRole	FuName	Appointed for Sectoral Scopes	Affiliation
Team Leader	Zhou Kai	1, 5	TÜV Rheinland (Guangdong) Ltd.

Technical Reviewer	Dr. Manfred Brinkmann	1, 3, 4, 5, 6, 10, 11, 12, 13	TÜV Rheinland Japan Ltd.
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3 VALIDATION FINDINGS

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

The final validation findings relate to the project design as documented and described in the revised and resubmitted project design documentation.

3.1 Approval and Participation

The below table summarizes the project participants and parties involved. The authenticity of the letters of approval has been validated through the official website of the NDRC and buyer's DNA.

These LoA(s) are therefore regarded as valid and meeting the requirements.

Project participant	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	Electric Power Development Co., Ltd
Parties involved	P.R. China (host)	Japan (Annex I party)
APPROVAL		
LoA received	Yes	Yes
Date of LoA	28th Oct 2008	8th Dec, 2008
Reference to document	FaGaiQiHou [2008] (2794)	Pingcheng 20.12.08 Number 28
LoA received from	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.	Luxi City Qinrui Wanma River Power Exploring Co., Ltd.
Validation of authenticity	Document Review and the announcement from NDRC's webpage	Document Review
Validity of LoA	Valid	Valid
PARTICIPATION		
Party is party to Kyoto Protocol	Yes. P. R. China ratified the Kyoto Protocol on 30th August 2002. http://unfccc.int/files/kyoto_protocol/status_of_ratification/application/pdf/kp_ratification.pdf	Yes. The Japan ratified the Kyoto Protocol 4 Jun 2002. http://unfccc.int/files/kyoto_protocol/status_of_ratification/application/pdf/kp_ratification.pdf
Voluntary participation	Yes. Approved by the NDA of China	Yes. Approved by the DNA of Japan
Diversion of official development aid	No	No

towards host country		
Project contribution to SD	Yes. Approved by the DNA of China	Yes. Noted by the DNA of Japan

3.2 Project Document

The Project Design Document is based on the currently valid PDD template version 3.2 (http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html) and is completed in accordance with the applicable guidance document 'Guidelines for completing the PDD' version 07 issued in EB 41 Annex 12 on 02 August 2008, (<http://cdm.unfccc.int/Reference/Guidclarif/pdd/index.html>)

3.3 Project Description

The audit team carried out the desk reviews for the FSR/16/, EIA/18/ and their approvals/20/, and the PDD/9/ provided by the PPs before auditing on site according to the CDM Validation and Verification Manual version 01/1/, Guideline for Completing PDD version 07. The audit team can confirm that the information described in the PDD sufficiently covers all relevant elements

During audit on site, the audit team visited the project site, including the dam, the plant and the transformer station of the project, confirmed the description in the PDD/10/. Through interviewing the local stakeholders, including the local residents, the local officials and the technical experts the audit team also cross-checked the real and actual situation of the project,

According to the audit findings, the audit team can confirm the following project information:

1. The scenario existing prior to the start of the implementation of the project activity.

Before the implementation of the project activity, the electricity supply due to the project activity would be generated by the electricity generation in the area of SCPG, which the project activity is connected to. The electricity generation from SCPG is mainly based on the fuel-fired power plant. Please refer to the data source in the Annex 3 BASELINE INFORMATION Table 1–Power Supply data for the South China Power Grid, 2002-2006

According to the methodology ACM0002 version 07/2/ and the project situation, the baseline scenario of the project activity is the same as the scenario existing prior to the start of the implementation of the project activity.

2. Information related to the project activity

The following information can be confirmed by the audit team through documents review and the site visit.

No.	Sub-item	Description	Reference
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1	Project title	Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station	LOA from China and Japan /11/ /12/
2	Project location	Zhongshan Town, Luxi City, Dehong Prefecture, Yunnan Province, China	FSR
3	Geographic coordinates of dam/plant	dam: 98°39'18"E, 24°08'21"N; power house: 98°39'40"E, 24°11'35"N	FSR-p56;PDD-p04
4	Installed capacity	18.9MW	FSR, Approval of FSR-p01
5	Annual operating hour	5,080 hours	FSR, Approval of FSR-p02
6	Electricity generation	96,012MWh	FSR, Approval of FSR-p02
7	Electricity consumption by self	480MWh (Note:0.5% will be employed)	PDD-p34, SL22-92/44/
8	loss of line and transformer	NA	NA
9	Electricity supplied to the grid	83,590MWh	FSR-p198, PDD-p34
10	Water surface area of reservoir	0.02km ²	FSR-p30
11	Power density	945W/m ²	PDD-p22
12	The type and the maximum height and width of Dam	Type: Masonry Gravity Dam 15.38m x 48m	FSR-p31
13	The size of tunnel (Length and section diameter)	length 5667.26 m , Diameter :2.2m*2.6m	FSR-p140
14	The size of the plant(length*width*height)	55.5m x 13.1m x 10.93m	FSR-p32
15	amount of generation units	3	Equipment Technological Agreement/45/
16	age and average lifetime of generation units	20years	FSR and Equipment Technological Agreement/ 45/
17	type of generator	SFW6300-10/2150	Equipment Technological Agreement/ 45/
19	type of turbine	CJA475-W-130/2×13.5	Equipment Technological Agreement/ 45/
20	Coefficient of effective electricity	87.5%	FSR-p198
21	Load factor	NA	NA
22	type of transformer	SFS9-31500/110	Purchasing Agreement For Main Transformer/28/
23	Description of output line(Voltage, length, title of terminal)	Voltage: 110kV, Length: 10km ,Zhongshan Transformer Substation	FSR-p20

24	Monitoring information(amount, accuracy, location)	Amount:10 meters, Accuracy:0.5 or more accurate, location: refer to Figure B.3 in PDD	PDD-p39
25	amount of meters	10	PDD-p39
26	starting date for construction	2008-01-21	Licence of starting construction/21/
27	starting date for project activity	2007-10-08	Purchase contract of turbines and generators/27/
28	construction period	2years	FSR-p26
29	estimated starting operation date	Jul, 2009	PDD-p12
30	expected operational lifetime of the project activity	20years	FSR-p198
31	The crediting time.	(7 years×3)	PDD-p07
32	The annual average over the crediting period of estimated reductions	72824tCO ₂ e	PDD-(p32-33)
33	the total estimated reductions of the first crediting period over 7 years	509,768tCO ₂ e	PDD-(p32-33)
34	About training	Monitoring staff training will be conducted by Beijing Tianqing Power International CDM Consulting Co., Ltd. before the project is registered. The monitoring staff training will include monitoring equipment, monitoring program, monitoring data, monitoring report, etc	PDD-p36

Based on the above mentioned auditing process and the confirmed information, the audit team can confirm that the information described in the PDD/10/ reflects the real and actual situation of the proposed project, which is accurate and that it provides the reader with a clear understanding of the nature of the proposed project.

3.4 Baseline and Monitoring Methodology

3.4.1 Applicability of the selected methodology to the project activity

The selection of the approved baseline methodology:

The project applies the approved consolidated baseline methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", Version 7 /2/, the valid date is from 14 Dec. 2007 to 4 Dec.

2008. As the GSP period of the project is from Oct. 8 to Nov. 6 2008, hence the audit team can confirm the version of the applied methodology is suitable and valid according to requirements of the footnote 16 of VVM version 1/1/ so long as the proposed project can be submitted for request for registration until August 4 2009.

Applicability criteria for the baseline methodology are assessed by the audit team by means of document review and interview. i.e

1. The business license/13/, the FSR/16/, the project approval/17/, the evidence of the surface area of the reservoir and the construction situation on site can show the proposed project is a new hydropower station with the installed capacity 18.9 MW, which will result in a new reservoir with surface area of 0.02 Km² at the full water level, therefore the power density of the project is 945 W/m², greater than 4W/m²;

2. The approval of the hydropower station connected to the grid/25/ can show that the power generated by the project will be connected to the Dehong Prefecture Grid via the Zhongshan Transformer Substation, then to the Yunnan Grid, finally to the South China Power Grid. As illustrated clearly in "Figure B.1 Project Boundary" in the PDD /10/, the project boundary is defined as within SCPG of which information on the characteristics are available; China DNA releases onto a relevant website the basic data on each Grid and they are updated every year.

(<http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/2008/20081230102527637.pdf>)

3. According to the confirmed during audit onsite and River basin planning /15/, the project does not involve switching from fossil fuels to a renewable energy at the site of the project activity.

Hence the audit team confirms that the project meets the conditions of the applicability of the methodology ACM0002 version 07 /2/ and it is applicable for the project to apply the methodology ACM0002 version 07/2/.

The selected methodology ACM0002 version 07 /2/ had been correctly applied in the section B.1 and B.2 of the PDD/10/.

3.4.2 Project Boundary

The identified boundary:

According to the methodology ACM0002 version 07/2/ the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to.

During on-site visit the location of the project is on Zhongshan Town, Luxi City, Dehong Prefecture, Yunnan Province, China. The dam is 160m downstream from

the conjunction of Wanma River and Gantanxiang River, a tributary of Wanma River, and the geographical coordinates of the dam is longitude of 98°39'18"E and the latitude of 24°08'21"N. The power house, which is 7,071m downstream from the dam, is located on the right bank of the Wanma River and the geographical coordinates of the power house is longitude of 98°39'40"E and the latitude of 24°11'35"N. And the project is finally connected to the South China Power Grid.

The above mentioned data has been reviewed and verified via FSR/16/ and the local map by the audit team.

The South China Power Grid is a larger regional grid, which consists of four sub-grids: Guangdong, Guangxi, Yunnan and Guizhou. According to the Tool to calculate the emission factor/5/ for an electricity system, it is justifiable to determine the South China Power Grid as the correct project boundary for this specific project, considering the substantial inter-grid power exchange among the South China Power Grid.

As there is net import power from the Central China Power Grid, CCPG will be included into the project boundary, and the information on the characteristics of the grid is available on the CDM website of NDRC in China.

The selected sinks and sources of greenhouse gases

According to the electric power yearbook in China 2007, the SCPG is dominated by coal-fired power plants (The thermal power generation accounts for 70.25% of the total power generation in 2006), and it is considered likely that coal-fired power plants will continue to dominate the power sector due to the local availability of low-cost coal. It is expected that renewable capacity additions will not have significant effects on the mix of the SCPG during the crediting period.

Hence the emission sources included in or excluded from the Project Boundary is justified as below:

System Boundary and Emissions

Emissions	GHGs involved	Description
Baseline emissions	CO ₂	Emissions from power generation of SCPG estimated

Project emissions	None	Emissions from the reservoir can be neglected as the power density of the project activity is 945W/m ² , greater than the threshold of 10W/m ²
Leakage	None	As the project is newly built, and all energy generating equipment is new. Therefore, no leakage estimated

As shown in the above Table, the audit team confirmed that the project activity dose not discharge emissions within the project boundary as a result of implementation of the project activity.

3.4.3 Baseline Identification

The validation team has checked the following according to the latest version of Approved CDM Validation and Verification Manual/1/, and the results are tabulated as follows. The details can be referred in Appendix A.

<i>The approved baseline methodology applicable to the project</i> <i>explicit criteria</i> <i>implicit criteria (e.g. available scenarios, applicability of formulas for BE/PE/LE calculations)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Details in Section 3.4.1
<i>PDD includes all assumptions and data used by project participants</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>All the references and documents used are relevant for establishing the baseline scenario</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>All the references and documents used are correctly quoted and conservatively interpreted in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>All relevant policies / regulations considered are listed in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>Identified potential baseline scenarios reasonably represent what would/could occur in the absence of the proposed project activity</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>The baseline scenario selection is appropriate and determined according to the methodology</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>The approved methodology used is applicable to the identified baseline scenario</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07

According to the paragraph 81 of the VVM version 01/1/, the DOE shall confirm that any procedure contained in the methodology to identify the most reasonable baseline scenario, has been correctly applied.

According to the description in the section of II BASELINE METHODOLOGY PROCEDURE Identification of the baseline scenario of the methodology ACM0002 version 7/2/, as the project activity is the installation of a new grid-connected renewable power plant, the baseline scenario is the following:

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system" i.e. the weighted average of the operating margin (OM) emission factor and the build margin (BM) emission factor, 50% OM and 50% BM have been selected for the first credit period according to ACM0002/ Version 07/2/. The calculation of baseline emission factors of the SCPG is based on the publication of the Office of National Coordination Committee on Climate Change (NC4), which is the subordinate of NDRC. Details will be further discussed in Section 4.6 – Calculation of GHG Emission,

In the section B.4 of the PDD/10/ the identification of the baseline scenario had been correctly described.

3.4.4 GHG Emission Reductions

The ex-ante estimation of emission reductions is based on the most recent data available at the time of submission of the PDD/10/ to the DOE for validation, i.e. the time for global stakeholder consultation (Oct.8 to Nov.6 2008), for the net electricity generation and the relevant baseline emissions and project emissions of the project, which is reasonably and transparently carried out.

<i>All assumptions made for estimating GHG are listed in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Section B.6. Emission Reductions
<i>All data used by project participants are listed in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Annex 3 Baseline Information
<i>Their references and sources are also listed in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Annex 3 Baseline Information
<i>Formulas, parameters, values are complete, accurate, transparent and conservative</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Annex 3 Baseline Information
<i>All the references and documents used are correctly quoted and conservatively interpreted in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per PDD Annex 3 Baseline Information

<i>Methodology has been applied correctly to calculate project emissions, baseline emissions, leakage emissions and emission reductions</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	As per ACM0002/Version 07
<i>All the emissions of baseline emissions can be replicated using information provided in the PDD</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Emission reduction calculation sheet

The detailed validation process and conclusion are described as below:

1. Application of baseline and monitoring methodology

According to the ACM0002 version 07 /2/ the emission reductions (ER_y) of the project activity during the crediting period are the difference between baseline emission (BE_y), the project emission (PE_y), and leakage (L_y). (i.e. $ER_y = BE_y - PE_y - LE_y$)

The audit team reviewed the calculation process and results of emission reduction which are described in the B.6 of the PDD/10/ and confirmed that the emission reduction of the project is fully complies with the methodology ACM0002 version 07 /2/ and the relevant tool /5/ based on the baseline scenario selected.

Through reviewing the emission reduction calculation sheet provided by the PP and the relevant data sources the audit team can confirmed that the calculations can be replicated based on equations in the PDD /10/ and data listed in the Table of Annex 3 of the PDD/10/ with appropriate data sources.

2. Baseline emission (BE_y)

As prescribed in baseline methodology, the baseline emission will be the KWh Produced / displaced by the renewable generating unit multiplied by an emission factor of the associated grid (measured in kg CO₂e/kWh). For this project activity the emission reductions will be the amount of electricity (kWh) supplied to the grid multiplied with the emission factor of the SCPG.

The grid emission factor of the project is calculated by “combined margin Method (CM)” consisting of the combination of “operating margin (OM)” and “build margin (BM)” according to the procedures prescribed in the approved methodology ACM0002 version 07 /2/.and on the basis of Bulletin on Baseline Emission Factors of China Regional Grid renewed by the Director Office of National Climate Change Coordination of NDRC (Chinese DNA) on July 18, 2008,

For BM calculation one deviation of the baseline methodology of AM0005 (later replaced by ACM0002) approved by the EB (as detailed in the PDD/10/) is adopted for using relevant emission data recently published by the DNA of the P.R.

China on 18th July 2008, in which the data of installed capacities of power plants in 2004, 2005 and 2006 were used for the recent increment of 20% installed capacities in the SCPG.

Compared with the original data published in the China Energy Statistical Yearbook and China Electric Power Yearbook (see details in Annex 3 of the PDD/10/) and through cross-checks the data of the website of CDM China, the audit team confirmed that the correct original data are adopted to calculate the emission factors in the PDD/10/ and the value published by the NDRC is adopted. Based on the ACM0002 version 07/2/, the operating margin as well as the built margin are determined ex-ante and thus remain fixed throughout the crediting period. This approach does not call for reviewing the grid emission factor every year.

As a result, the OM emission factor is calculated to be 1.0608tCO₂e/MWh and BM is 0.6816tCO₂e/MWh, as shown in Annex 3 of the PDD /10/. Hence the CM emission factor is calculated to be 0.8712tCO₂e/MWh, using the Equation B.13 in the PDD /10/ which correctly follows the equation (13) of the relevant tool /5/. The default weight of 50% is applied to both OM and BM emission factors for calculation of CM emission factor.

About the amount of electricity (kWh) supplied to the grid generated by the project, please also refer to evaluation of Annual electricity sales in the investment analysis of the validation report.

3. Project emissions (PE_y)

- 1) The PDD /10/ calculates the power density (PD) of the project activity, according to the equation specified in the ACM0002 version 07 /2/, and therefore considered effective.
- 2) The data necessary for the calculation of the PD are derived from the FSR /16/ which is approved by the local government and considered appropriate.
- 3) As the PD has been worked out to be 945 W/m², the PE_y is regarded as zero, according to the definition by ACM0002 version 07 /2/. Hence the PE_y calculation is correctly applied.

4. Leakage

According to the methodology ACM0002 version 07 /2/ leakage must not be considered.

Hence leakage LE_y=0. It is clearly indicated in the B.6.1 of the PDD/10/.

5. Emission reductions

The PDD /10/ calculates both the project emissions and leakage to be zero as shown in the above, and then concludes that with Equations from B.14 through B.16 in the PDD /10/, the emission reductions are equal to the baseline emissions.

The emission reductions of the project activity are calculated to be 72,824 tCO₂e/year. The audit team confirmed the calculations are appropriate and correct. In conclusion, the audit team can confirm that the emission reductions are appropriately worked out complying with relevant methodology ACM0002 version 07/2/ and tool /5/, and parameters and data for the calculations are sourced from public data sources.

3.5 Additionality of project activity

The audit team assessed the additionality of the project activity with the following steps as below, complying with VVM/1/:

3.5.1 CDM consideration

1. Prior consideration of CDM

Below summarizes how the project participant explains the prior consideration of CDM and TÜV Rheinland validates in accordance with the GUIDANCE ON THE DEMONSTRATION AND ASSESSMENT OF PRIOR CONSIDERATION OF THE CDM/6/ and VVM/1/.

Since the project activity started on 31 October 2007 as CDM project, before the date of publication of the PDD for global stakeholder consultation on 8 October 2008, the validation of the prior consideration of CDM is requested by of EB41 annex 46.

1.1. Project start date definition

To comply with the definition in Glossary of CDM terms (version 04)/7/, the project starting date is the Signature date of equipment purchasing contract/27/, i.e. on Oct. 8 2007.

For confirming this point, The audit team issued the finding of CL-16, and then closed as being resolved. With the equipment purchasing contract /27/, the Construction Agreement/29/, and the license of construction start/21/ as the evidences, The audit team can confirm the earliest start date of project activity has been correctly indicated and fully complies with the new definition of Glossary of CDM terms (version 04)/7/.

1.2. Prior consideration of CDM

Timeline of major milestones relevant to the prior consideration of CDM are tabulated below, according to the relevant guidance/6/.

Timeline of major key milestones relevant to prior consideration of CDM

Date	Milestone	Evidences/Remarks
May 2007	The FSR of the project was completed,	FSR report/16/

	and in the FSR, the IRR is lower than the benchmark, therefore, the Institute suggested the project owner to apply for CDM to improve financial attraction of the project.	
7 June 2007	The project owner seriously considered CDM revenue, and the Directorate Decision was made to apply for CDM project.	Board decision/22/
12 June 2007	The project owner submitted the support request letter to the local government on CDM application.	Letter to local government on CDM application/35/
22 June 2007	The project owner sent Commission Letter on CDM application to Beijing Tianqing.	Commission letter to Beijing Tianqing about CDM application/37/
2 July 2007	The project owner received the local government supporting letter.	Supporting letter from local government on CDM application/36/
27 July 2007	The FSR of the project was approved by local Development and Reform Committee	Approval of FSR/17/
10 September 2007	The project owner and Beijing Tianqing signed the PDD Development Agreement.	PDD development agreement/40/
8 October 2007	The Purchase Contract of Turbines and Generators was signed.(the earliest starting date of the project activity)	Purchase contract of turbines and generators/27/

The audit team confirmed that all the milestones listed in the above table are evidenced with documents provided by the project participants.

According to the above milestones, the serious CDM consideration prior to the starting date of project activity is depicted as follows:

The Feasibility Study Report (FSR) was completed in May 2007 by Dehong Prefecture Water Conservancy and Electric Power Survey and Design Institute (hereinafter referred to as “the Institute”). It substantiates that the IRR of the project was lower than the benchmark of 10% and the project lacks financial attraction. However, based on the suggestion from the Institute and CDM information from the website (<http://cdm.ccchina.gov.cn/web/index.asp>), the project owner knew the CDM revenues can improve the IRR of the project. Therefore the project owner made Directorate Decision and decided to apply for CDM project on June 7, 2007, and submitted the support request letter to the local government on CDM application on June 12, 2007. During this period, the project started to look for CDM consulting companies to assist the CDM application, and sent the Commission Letter on CDM application to Beijing Tianqing Power International CDM Consulting Co., Ltd. (hereinafter referred to as “Beijing Tianqing”) on June 22, 2007. Subsequently, the project owner received supporting letter from the local government on July 2, 2007. The project owner and Beijing

Tianqing signed the PDD Development Agreement on September 10, 2007 and Beijing Tianqing started the document collecting for PIN and draft PDD writing. Afterwards, the project owner finally signed the Purchase Contract of Turbines and Generators on October 8, 2007 (the earliest starting date of the project activity). Therefore, it is obvious that the project owner was aware about CDM revenues before the investment decision of the project and CDM has played a decisive role in the successful implementation of the project.

Accordingly, after the review of the relevant evidences, The audit team judged that the project owner conducted seriously prior consideration of CDM and Oct. 8 2007 is defined appropriately as the project starting date according to the “Glossary of CDM Terms”.

1.3. Activities/events to achieve CDM

Key activities and events taken by the project participant to achieve CDM are tabulated in the below timeline:

Timeline of milestones of key activities/events to achieve CDM

Date	Milestone	Evidences/Remarks
8 October 2007	The Purchase Contract of Turbines and Generators was signed.(the earliest starting date of the project activity)	Purchase contract of turbines ad generators/27/
24 December 2007	The construction contract was signed.	Construction contract/29/
9 January 2008	Stakeholders Consulting Meeting was held for CDM application.	Summary of consulting meeting/41/
15 January 2008	LoI with Electric Power Development Co., Ltd. was signed.	LoI with Electric Power Development Co., Ltd/38/
21 January 2008	The project started construction.	Licence of starting construction/21/
12 March 2008	The project owner and Beijing Tianqing signed the CDM Cooperation Contract.	CDM cooperation contract/39/
August 2008	The project was submitted to China DNA for CDM application approval	Notification of Chinese DNA/11/
14 August 2008	ERPA with Electric Power Development Co., Ltd. was signed.	ERPA/23/
2 September 2008	China DNA approved the project as a CDM project on the China DNA website.	Chinese DNA's website.
28 October 2008	Paper pattern China LoA	Chinese LoA/11/
8 October, 2008	The GSP was started from 08/10/2008 to 06/11/2008	
05/11/2008~06/11/2008	Onsite validation	
30 april 2009	The project will start commissioning.	
July 2009	The project will start Operation.	

As shown in the above timeline table, the real and concrete actions to secure registration as a CDM project activity have been continuously taken in parallel with

its implementation. Considering the important role of CDM revenues on the implementation of the project, the project owner required the Beijing Tianqing to submit the PIN and draft PDD for guaranteeing the project registration in time. The project owner and Beijing Tianqing signed the PDD Development Agreement on September 10, 2007. Then based on the requirement of the project owner, Beijing Tianqing started to write PIN and PDD and then submitted them to the project owner several months later. During this period, in order to meet the requirement of CDM application, the Stakeholders Consulting Meeting was held on January 9, 2008. At the same time, Beijing Tianqing introduced the project to Electric Power Development Co., Ltd. and after simple due diligence, the Letter of Intent (LoI) /38/with Electric Power Development Co., Ltd. was signed on January 15, 2008. Considering the efficiency and quality of the PIN and draft PDD, and the LoI signed with the buyer, the project owner signed the CDM Cooperation Contract with the project owner on March 12, 2008.

After the negotiation, the buyer and the project owner signed the ERPA on August 14, 2008. At the same period, in August 2008, the project was submitted to China DNA for CDM application approval, and China DNA approved the project as a CDM project, which has been announced on the China DNA website. On October 8, 2008, the project was submitted for GSP. On November 5 and 6 2008, the project was on-site validated. Since then, the CDM application work was going on smoothly.

The audit team has confirmed the credibility and appropriateness of the above timeline through cross-checks of all the listed evidence.

In conclusion, the audit team judges that the above timeline sufficiently explains the actions/events taken by the project participants to achieve CDM. Though it took almost 2 years and 3 months to reach the publication of the PDD/9/ after the serious CDM consideration (project decision), The audit team considers that the period taken by the project participant is not unusual when considered nature and difficulties of the tasks required to the project participant in parallel with implementation of the project activity.

3.5.2 Identification of alternative

The audit team verified that as described in the above section “5.3 Baseline identification”, the baseline scenario is clearly prescribed in the methodology ACM0002 version 07/2/, thus it is enough to depict the identification of the baseline scenario which is prescribed in the methodology selected, and no need to identify the baseline scenario.

The audit team also deems that according to the paragraph 103 of the VVM /1/, no further analysis about the identification of alternative is required for the reason that the selected methodology ACM0002 version 07 /2/ has contained an identified baseline scenario.

3.5.3 Investment analysis

The assessment of investment analysis is conducted by the audit team as per the Guidance on the Assessment of Investment Analysis version 02/8/.

Benchmark Analysis

Benchmark analysis is applied and the project IRR after tax (hereafter IRR) was calculated to be 7.46% without CERs revenue, and 12.56% with CERs revenue. It is, therefore, concluded that the project activity is not financially attractive, of which processes are validated with below steps:

Application of benchmark analysis

The PDD/10/ selected the benchmark analysis method for investment analysis of the project activity with the following justifications:

4 A) The selection of analytical method.

Tool for the demonstration and assessment of additionality (Version 05.2) /3/ provides 3 Options for the methods of investment analysis. Option I is not applicable since the project activity aims to obtain revenue from electricity sale in addition to revenue from CERs. Option II is also not applicable for the reason that the identified baseline is not an investment project, but the electricity grid system. Therefore based on the same reason of option II, only Option III, benchmark analysis, can be applied to the project activity.

5 B) The selection of Benchmark.

In China there is the benchmark IRR publically available, specified in the rule named with “Economic Evaluation Code for Small Hydropower Projects (SL16-95)”/43/, which is applicable to hydropower stations with an installed capacity below 50MW in rural area. The “Rule” states that the hydropower project with an installed capacity below 50MW in rural area in China can apply 10% (project IRR, post-tax) as the benchmark to evaluate the financial attractiveness of the hydropower projects. The audit team has validated that this rule is applicable to the project activity and still valid by now. Thus the audit team can confirm this Benchmark is appropriate and in accord with the requirement of paragraph 11 of the Guidance on Assessment of Investment analysis/8/.

6 C) The selection of the IRR's type

The PPs choose the calculation approach of project IRR to perform the IRR calculation because the selected benchmark is prescribed as project IRR. The cost of financing expenditures (i.e. loan repayments and interest) has been excluded in the calculation spreadsheet of project IRR. The audit team can confirm it is in accordance with the requirement of paragraph 9 of the Guidance on Assessment of Investment analysis/8/.

7 D) The assessment period of the project

The PPs choose 22 years of the period of assessment (2 years of construction and 20 years of operation) considered as the technical lifetime to perform the investment analysis. Having validated this period, The audit team deems the 2 years of construction and 20 years of operation are all quoted from FSR/16/, and 20 years of operation is consistent with the SL16-95/43/ and the guidance on assessment of investment analysis/8/. Thus the appropriateness of the period of assessment was confirmed as per paragraph 3 of the Guidance on Assessment of Investment analysis/8/.

8 E) Evaluation for fair value

The audit team confirms that in the IRR calculation spreadsheet, the fair value of the project activity assets at the end of the assessment period have been included as a cash inflow in the final year. It is in accordance with the requirement of paragraph 4 of the Guidance on Assessment of Investment analysis/8/.

9 F) Evaluation for validity of input values

The audit team confirms all the Input values used in the investment analysis are valid and applicable at the time of the investment decision taken by the project participant. All the input values are estimated to be reasonable and conservative in the FSR/16/ which was issued in May 2007, and the investment decision is made on 7 June 2007. Thus It is in accordance with the requirement of paragraph 6 of the Guidance on Assessment of Investment analysis/8/.

10 G) Fixed input values

Though the IRR calculations in the investment analysis use only fixed input values, it is in accordance with the requirement of Economic Evaluation Code for Small Hydropower Projects (SL16-95)/43/ and considered as an appropriate approach and common practice in China.

The audit team reviews the baseline scenario of the PDD/10/, cross-checked the "Rule", and confirms that the selection of benchmark analysis for investment analysis is appropriate and fully complies with the Tool for the demonstration and assessment of additionality /3/ and VVM/1/.

Conformance with EB 38 paragraph 54

Considering *paragraph 54* of EB 38 report:

“54. The Board clarified that in cases where project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities, DOEs are required to ensure that:

- (a) The FSR has been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed.
- (b) The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE should validate the appropriateness of the values.
- (c) On the basis of its specific local and sectoral expertise, confirmation is provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision.”

The audit team evaluated the conformance with the above mentioned requirement as the following 3 point:

(a). As shown in the section of the prior consideration of CDM application, the FSR/16/ was issued by an independent third party, Ministry of Water Resources Rural Electric Institute in May 2007 , and the board decision (investment decision) was set out to apply CDM on 7 June 2007. As the FSR/16/ has been completed by an independent and certified institute and approved by local government, and the interval between the FSR finalization and the investment decision is sufficiently short (at most one month), therefore The audit team confirms it is unlikely in the context of the project activity that the input values would have materially changed.

(b). The audit team can confirm that there is no inconsistency of the input values used in the investment analysis of the PDD/10/, after comparing with those in the FSR/16/ except the O&M cost. The comparison is tabulated below.

Comparison of input value of investment analysis between FSR and PDD

Parameters	Unit	FSR/16/	PDD/10/
Installed capacity	MW	18.9	18.9
Investment (fixed asset)	million CNY	98.1269	98.1269
Annual O&M cost	million CNY	48.7461	2.3459
Annual electricity delivered to grid	MWh	83590	83590
Tariff (inc. VAT)	CNY/kWh	0.171	0.171
Operational period	Years	20	20
Construction period	Years	2	2
Value added tax	%	6	6
Corporation Income tax	%	25	25

City construction and maintenance tax	%	3	3
Educational surcharge	%	3	3

The inconsistency of the O&M cost between the FSR /16/ and the PDD/10/ is caused by the cost of *financing* expenditures (i.e. loan repayments and interest). In the FSR/16/ it was included but in the PDD the PPs has excluded it based on the Guidance on assessment of investment analysis/8/. The audit team confirms this variation is reasonable and accurate and in compliance with the additionality tool/3/.

(c). Through the following cross-checks, Investment cost (fixed assets), Electricity Tariff, O&M cost and annual electricity supplied to the grid, estimated in the PDD and used in the investment analysis were validated:

1) Investment cost (fixed assets) and annual electricity sales

The Investment cost (fixed assets) and the annual electricity sales are cross-checked with comparison with the Investment per kilowatt-hour* (CNY/kWh) index of other similar registered projects activities, in Yunnan Province as shown in Table below (from CDM pipeline). The Investment per kilowatt-hour of the proposed project, 1.1739 CNY/kWh is almost equal to the average of the 29 similar registered projects, 1.1707 CNY/kWh. Thus The audit team confirms the investment per kilowatt-hour falls into the reasonable range and the investment of the proposed project are suitable for the corresponding annual electricity sales, and then the investment cost and the electricity sales are cross-checked. Besides the calculation of Electricity sales based on the electricity generation is also confirmed as follows:

Firstly the annual theoretical power generation = Total installed capacity * Annual theoretical utilization hours = 18.9MW * 5,080h = 96,012MWh, which is confirmed by the audit team.

Secondly the annual electricity sales are calculated as: Annual net power supplied to the grid = Annual theoretical power generation * Coefficient of effective electricity * (1 – Rate of power consumption by plant). Rate of power consumption by plant = 0.5%, which is determined based on the Regulation of Development Programming of Electrical Power in the Region Mainly Supplied by Rural Hydropower (SL22-92, published by the Ministry of Water Resources of China). Considering the grid load characteristics, the coefficient of effective electricity of 87.5% is employed by the project, because: based on the Economic Evaluation Code for Small Hydropower Projects/43/ (Document No. SL16-95, published by the Ministry of Water Resources of China), for run-of-river without regulation

* The index, investment per kilowatt-hour is one of unit financial index of hydropower project. It is the proportion of the investment cost (fixed assets) accounting for the annual electricity generation. Considering the electricity generation may be unavailable and the electricity sales can be available from the PDD on the UNFCCC's website, TÜV Rheinland displaces the electricity generation with the electricity sales in the index to ensure the analysis in a feasible and comparable level.

abilities (the grid will only take part of the electricity generated in rainy season and night), the coefficient of effective electricity should be 70%-80%, the 87.5% used by the project is conservative; in addition, the project connected to the Dehong Prefecture Grid where hydropower generation consists of nearly 100%, and due to the limited absorption ability, the Grid Company is not able to buy all of the electricity that could potentially be generated by the plants during the rainy season and valley power consumption load periods, so during these periods, the projects have to stop operation, and about 19.02%~28.3% of total potential annual power generation cannot be generated (Feasibility Study Report, page No. 4-19). Hence, the coefficient of effective electricity of 87.5% is conservative. Even if a coefficient of effective electricity of 100% is applied in the project, the post-tax project IRR 9.47% would be lower than the benchmark of 10%.

Therefore annual net power supplied to the grid = $96,012\text{MWh} \times 87.5\% \times (1-0.5\%)$
= 83,590MWh.

Thus the audit team confirms all the calculation and parameters are evidenced and the electricity sales are calculated as per the rationale of accuracy and conservativeness in the VVM/1/.

2) Electricity Tariff

As shown in the Table below the average electricity tariff of the 29 registered similar projects are 0.17 CNY/kWh (Inc. VAT), which are almost equivalent with the estimated tariff 0.171 CNY/kWh (Inc. VAT) of the proposed project applied in the PDD/10/. Furthermore the official electricity tariff document (DZF [2003] 367)/26/ which is come from the government of Dehong Autonomous Prefecture of Yunnan province prescribes the average electricity tariff is 0.171 CNY/kWh, which is in accordance with the estimated one in the FSR/16/ and PDD/10/. Thus the electricity tariff is confirmed by the audit team through cross-checking the above mentioned evidences derived from UNFCCC's website, and local government.

3) O&M cost

As shown in the following Table, the index, O&M cost per electricity sales* of the proposed project activity is 0.0281 CNY/kWh, which falls into the reasonable range between the maximum, 0.0803 CNY/kWh and the minimum, even lower than the average, 0.0316 CNY/kWh. Thus TUV Rheinland confirms the O&M cost per kilowatt-hour falls into the reasonable range and the O&M cost of the proposed project are suitable for the corresponding annual electricity sales, and the lower

* The index, the O&M cost per kilowatt-hour is also one of unit financial index of hydropower project. It is the proportion of annual O&M cost accounting for the annual electricity generation. Considering the electricity generation may be unavailable and the electricity sales can be available from the PDD on the UNFCCC's website, The validation team displaces the electricity generation with the electricity sales in the index to ensure the analysis in a feasible and comparable level.

the O&M cost is, the conservative IRR will be worked out. Then the investment cost and the electricity sales are cross-checked..

Comparison of the Project activity with other similar Registered Projects in Yunnan Province

Reg. No.	Name	Installed Capacity	Investment	Electricity Sales	Tariff (Inc. VAT)	O&M Cost	Investment per Kilowatt-hour	O&M Cost per Kilowatt-hour
		MW	Mil. CNY	MWh	CNY/kWh	Mil. CNY	CNY/kWh	CNY/kWh
1074	Yingjiang Nandihe	20.0	131.93	91,000	0.2028	2.59	1.4498	0.0285
791	Maguan Daliangzi	32.0	187.8	156000	0.16854	3.83	1.2038	0.0246
1102	Yunnan Heier	25.0	115.007	124075	0.208	9.962163	0.9269	0.0803
2063	Longchuan Nanwanhe 2nd Level	20.0	109.664	106400	0.17	2.6879	1.0307	0.0253
2045	Mujiajia Yiji	18.9	86.319	72350	0.18	2.9327	1.1931	0.0405
2048	Lufeng	36.0	198.020	135820	0.215	5.3082	1.458	0.0391
2030	Fugong Mukeji	31.5	194.85	143630	0.18	2.74	1.3566	0.0191
2016	Yingjiang Xiangbai River Zhina	21.0	85.760	95928	0.152	2.5082	0.894	0.0261
2015	Dayao County Yupao River 3rd Level	20.0	114.772	74880	0.215	1.3154	1.5327	0.0176
2080	Binglang River Tucang	35.0	124.172	156009.9	0.146174	4.0565	0.7959	0.026
1605	Shaba	24.0	126.6	118510	0.16	2.7108	1.0683	0.0229
1995	Guangnan Shangshilong	20.0	80.644	68470	0.2	2.046179	1.1778	0.0299
2003	Guangnan Duimen River	20.0	111.557	93380	0.165	2.1396	1.1947	0.0229
1983	Yingjiang Songpo	20.0	87.408	86849	0.1509515	2.2847841	1.0064	0.0263
2055	Shangri-La Langdu River 3rd Level	18.0	93.365	66537.2	0.14	2.2268	1.4032	0.0335
2057	Shangri-La Langdu River 4th Level	24.0	95.622	88764.5	0.14	2.4216	1.0773	0.0273
2059	Shangri-La Langtayong	18.0	84.534	72301.9	0.14	2.064	1.1692	0.0285
2050	Shangri-La Langdu River 1st Level	21.6	88.002	86456.6	0.14	2.0324	1.0179	0.0235
2054	Shangri-La Langdu River 2nd Level	22.5	93.409	81875.7	0.14	2.1276	1.1409	0.026
1862	Yunnan Lushui County Laowohe	25.0	120.871	117110	0.14045	3.02	1.0321	0.0258
2116	Yingjiang Mangya River 1st	24.9	150.653	133713.99	0.161	3.7562	1.1267	0.0281
2114	Lijiang Wulanghe Secondary	32.0	151.421	140000	0.176	5.36	1.0816	0.0383
2106	Lianghe Hulukou	20.0	94.89	95830	0.1375	2.9618	0.9902	0.0309

2064	Jinping Miao-Yao-Dai Autonomous County Kesikou	17.0	113.569	76360	0.215	1.9486	1.4873	0.0255
2376	Yunnan Tengchong Longchuan River Stage I	24.0	154.03	112615	0.205	3.47	1.3678	0.0308
841	Yunnan Whitewaters	25.0	115.007	124075		9.962163	0.9269	0.0803
2199	Duduluo River	48.0	198.57	197288	0.1513	5.9	1.0065	0.0299
1388	Dali Yang'er	49.8	360.85	180838	0.215	6.0051	1.9954	0.0332
2150	Langwaihe	45.0	163.49	194766	0.145	5.0973	0.8394	0.0262
	Maximum				0.215		1.9954	0.0803
	Average				0.17		1.1707	0.0316
	Minimum				0.1375		0.7959	0.0176
	the proposed project	18.9	98.1269	83590	0.171	2.3459	1.1739	0.0281

Therefore the audit team confirms the investment cost (fixed assets), annual electricity sales, electricity tariff and annual O&M cost have been estimated appropriately and conservatively via cross-check as per paragraph 54 of the EB 38 meeting report.

In conclusion, the audit team confirms that the IRRs are calculated appropriately in a conservative manner complying with the guidance on assessment of investment analysis/8/ and tool for demonstration and assessment of additionality/3/; and the project activity cannot be considered financially attractive.

3.5.4 Sensitivity analysis

A sensitivity analysis has been conducted with variations of the 4 parameters: 1) investment cost (fixed assets), 2) O&M cost, 3) electricity sales, 4) electricity tariff complying with Guidance on Assessment of Investment analysis/8/, tool/3/. Though the O&M cost does not constitute more than 20% of total project cost, they are also applied respectively as one of the 4 parameters for reference.

The result shows that within (+) / (-) 10% variation ranges, the IRRs do not exceed the benchmark 10%: at (-) 10% of O&M cost, and investment cost, the IRRs calculated are 7.76% and 8.80% respectively, and at (+) 10% of electricity sales and electricity tariff, the IRR calculated is 7.048.85%, which do not exceed the benchmark yet.

Moreover a further interpretation about the variation of the above mentioned four parameters is presented as follows:

With an increase of annual electricity sales by 19%, the IRR of the project can reach benchmark of 10%. But in FSR/16/, based on the water resource of the river in past 35 years, the power generation, as well as the installed capacity and the annual utilization hours of the project has been calculated, and will not impose significant changes in normal situations. As explained above, the average annual operation hours are estimated appropriately, the point of questions is how much it would fluctuate in 20 years to come. The annual operation hours may largely fluctuate in a certain year; however, when divided by 20 years to calculate the average, its change gives only a little variation as a whole. And it may fluctuate between (+) and (-). Therefore, it is unlikely that the variation of electricity sales can thoroughly change the realistic financial aspects.

With an increase of electricity tariff by 19%, the IRR of the project can reach benchmark of 10%. According to description of grid price in FSR/16/, the applied grid price 0.36 Yuan RMB/kWh is the highest grid price in Yunnan Province. In addition, the government of China has to make the grid price steady since the grid price is related tightly to the national economy and livelihood of people. Therefore, it is unlikely that the grid price will increase and as a result and it is not possible to improve the post-tax Project IRR through an increase in the grid price.

With a decrease of investment cost by 17%, the IRR of the project can reach benchmark of 10%. However, the possibility that this assumption occurs is zero because the actual static total investment till February 2009 is 106,920,000 Yuan RMB which has already exceeded the expected value of 98,126,900 Yuan RMB in

FSR/16/. Therefore it is impossible to improve the economic attraction due to the increase in static total investment.

Even if the annual O&M cost decreases to zero, the IRR of the project can't reach benchmark of 10%. Therefore, it is impossible to adjust annual O&M cost to raise the IRR significantly.

Furthermore a complementary investment analysis was conducted to check the likelihood that the IRR of the project activity reach the selected benchmark with possible variations of the electricity tariff and O&M cost as follows:

A) Electricity tariff:

An official data source should be < Yunnan provincial statistical yearbook> and so on, but in <Yunnan provincial statistical yearbook> there is no such an index of the electricity price index, thus the <China statistical yearbook> should be adopted. And a historical data should be the latest at least 5 years during validation.

Based on the <China statistical yearbook 2008> from year 2001~2007, the factory price of electricity generation increase with 2.2% annually on average. The audit team validates this data source and calculation, thus the electricity tariff is assumed to increase by this rate 2.2% in the operational period.

B) O&M cost

The annual increase rate of O&M cost is calculated with annual increasing rate of payroll, annual increase rate of material purchase price, and annual increase rate of fixed assets investment price. According to the data from the year 2001 to 2007 of 'Statistical Yearbook of China 2008', the annual increasing rate of payroll was about 15.8%, annual increase rate of material purchase price was about 4.5%, and annual increase rate of fixed assets investment price was about 2.2%. Based on these data, the annual increase rate of the O&M cost is about 5.9% (Weighted Mean Value). The audit team validates this data source and calculation, thus the O&M cost is assumed to increase by this rate 5.9% in the operational period.

Given that the electricity tariff and O&M cost increase by the respective rate shown above, and other parameters are assumed not to change in the operational period, the net cash flow decreases annually which cause the result of IRR is 8.36%, still lower than the selected benchmark. The audit team has validated the above supplementary analysis and deems in China when the electricity tariff is increasing, the O&M cost is also increasing, much more quickly. The increase of O&M cost affects on IRR much more than the increase of electricity tariff. Therefore the audit team can confirm it is highly unlikely the variation of electricity tariff will change the essential financial aspects of the project activity thoroughly.

The audit team validates that the above sensitivity analysis clearly demonstrate that it is unlikely that the IRR may exceed the benchmark within reasonable variations of financial parameters.

In conclusion the result of the above investment analysis with use of the benchmark analysis and sensitivity analysis are appropriate and in accordance with the requirement of additionality, which is confirmed by the audit team, hence the project activity is financially unattractive.

3.5.5 Barrier analysis

With the above arguments, it is concluded that the proposed CDM project activity is unlikely financially attractive, the Barrier Analysis has been skipped according to "Tool for the demonstration and assessment of additionality (Version 05.2)" /3/.

3.5.6 Common practice analysis

Common practice analysis has been validated with below three steps: 1. Criteria for identification, 2. Identification of similar activities, and 3. Analysis of identified similar activities.

1. Criteria for identification

For identification of similar activities, the additionality tool/5/ requires considering criteria: 1) location, 2) investment circumstance, 3) scale, 4) technologies, and 5) financing condition.

To comply with these requirements, the PDD/10/ applied the following conditions for identification of similar activities: 1) located in Yunnan province, 2) construction started in and after 2002, 3) new-built hydropower project, 4) grid-connected project, 5) with installed capacity from 15MW to 50MW, 6) not applied for CDM and 7) with similar financing condition, which are considered appropriate.

A) located in Yunnan province

In PRC tariff, project site conditions and investment circumstances differ province by province. Each province has their own tariff policy and set the standard tariff effective within the province published by the Price Bureau of the province. The physical condition of a project site is determined largely by the river water flow condition, which is affected by weather conditions which vary province by province. And general conditions for investment differ province by province, as each province has their own policy on hydropower project investments.

Therefore application of the criteria, located in Yunnan province is reasonable and appropriate.

B) Construction started in and after 2002

Application of this condition is appropriate and complies with the additional tool/5/. On 10th February 2002, the State Council published the notice on Issuing Electric Power Sector Reform Program which has largely affected the investment scheme for hydropower projects. Especially small-scale private investors were affected, as with the reform some financial supports by the government were cancelled, and instead financial competitions were introduced for cost saving, while state-owned investors still can keep enjoying some financial benefits provided by the government. These were confirmed with relevant information provided by the project participant. As such, investment circumstances for hydropower projects were fundamentally changed after the reform, it is considered appropriate to include only hydropower projects of which construction started in and after 2002.

C) New-built hydropower project

As shown in the PDD/10/, the project activity is a new-built hydropower project, the PPs chose new-built project to perform this analysis, for the reason that a new-built project has different investment parameter with the expansion and retrofit project.

D) Grid-connected project

As shown in the PDD/10/, the project activity is a grid-connected hydropower project, the PPs chose grid-connected project to perform this analysis, for the reason that only grid-connected project can be applicable for the chosen methodology ACM0002.

E) With installed capacity from 15MW to 50MW

Application of these criteria is considered appropriate. The PDD/10/ specifies the criteria of installed capacity from 15MW to 50MW is considered as the similar scale to perform the common practice.

The hydropower project with the installed capacity below 50MW is defined as small scale hydropower project in terms of the <Yearbook 2005 of China Water power>. According to UNFCCC, the project with installed capacity below 15MW is defined as the small-scale project. Considering “Tool for the demonstration and assessment of additionality”, If necessary data/information of some similar projects are not accessible for PPs to conduct this analysis, such projects can be excluded from this analysis” (Additionality tool version 5.2/3/). In the Yearbook of China Water Resources 2006 and 2007, the official authority statistics, there are no any hydropower project with installed capacity below 15MW, thus projects with installed capacity lower than 15MW were not considered in the common practice.

Therefore this criteria “with the installed capacity from 15MW to 50MW” is considered reasonable and complies with the additional tool/3/ and national regulation.

F) Not applied for CDM

It is obvious that only the project which is not applied for CDM can be comparable with the proposed project.

G) With similar financing condition

It is obvious that only under similar financing condition the benchmark can be used to compare them.

The audit team judges that the criteria above have been specified appropriately with conformance with the tool for demonstration and assessment of additionality/3/.

2. Identification of similar activities

New-built grid-connected hydropower projects which are located in Yunan province, with installed capacity from 15MW to 50MW and similar financing condition, construction started in and after 2002 and not applied for CDM were identified with the following steps:

Referring to Yearbook of China Water Resources 2006 and 2007 as the data source, the PDD/10/ identified 18 hydropower stations located in Yunnan province as shown in Table B.6 of the PDD/10/.

The audit team validates the above mentioned 18 projects as follows:

1) Of these projects, 6 projects, Luoze River Hydropower Project, Supa River Sanjiangkou Hydropower Project, Yisa River Hydropower Project, Laohushan II Hydropower Project, Hongshiyan Hydropower Station and Jiren River Hydropower Station started operation before the year 2002. Thus these 6 projects have been excluded and are not similar with the proposed project activity.

2) In the remainder 12 projects, Xima Xingyun Aluminium Factory Hydropower Station is the captive station of Yunnan Yingjiang Xingyun Co., Ltd, and Chongjianghe II Phase (Expansion) Hydropower Station is an expansion project in an existing power plant. Therefore the two projects have been excluded and are not similar with the project activity.

3) Having been put into grid-connected operation on 28 December 2005, Dongping In the remainder 10 projects, two projects are applying for CDM: Yunnan Mengjiahe Kachang Muwen Hydro Power Station
<http://cdm.unfccc.int/Projects/Validation/DB/8QGLWZ8TP3ZOPPROVKQ2MNLWFO8EVT/view.html>

And Yunnan Lamenga 2nd Level Hydropower Station

<http://cdm.ccchina.gov.cn/website/cdm/pdf/Item/Item293.pdf>

Therefore the two projects have been excluded and are not similar with the project activity.

The audit team judges the residual 8 projects are considered as the similar projects and this identification of similar projects has been appropriately conducted after screening with the specified criteria.

3. Analysis of identified similar activities

As shown above, 8 similar project activities are observed, thus the PPs adopt the following method to identify the essential distinction between the similar projects and the project activity:

- (1) The investment per kilowatt of Nanting River Hydropower Station, Mengdianhe II Hydropower Station, Maomaotiao Hydropower Station and Xiashilong Hydropower Station are compared with that of the project 5,192Yuan RMB/kW49.

The investment per kilowatt of the 4 similar projects listed in the Table B.7 can show that they are significantly lower than that of the project, which causes the similar projects to be more financially attractive.

The annual theoretical utilization hours of Yanziya Hydropower Station is compared with that of the project 5,080h. According to the table B.8 of the PDD it is significantly higher than that of the project, which causes the similar project to be more financially attractive

The grid price of Laodukou Hydropower Station, Wuni River Hydropower Station and Houqiao Hydropower Station are compared with that of the project 0.171Yuan/kWh. According to the results of the table B.9 of the PDD the grid price of the 3 similar projects is significantly higher than that of the project, which allows the causes projects to be more financially attractive.

To confirm the distinctions between the similar projects and the project, the benchmark analysis can be used in the common practice analysis. Considering that the post-tax project IRR is used in the benchmark analysis, the post-tax project IRRs of the similar projects are estimated. The parameters of the similar projects are determined as follows: (1) The key parameters, i.e. installed capacity, annual utilization hours, investment per kilowatt, and grid price, are the actual parameters of the similar projects. (2) The other parameters could be extrapolated with those of the project, i.e. the annual operational cost of the similar projects can be estimated by that of the project multiply the times of the installed capacity. (3) The VAT rate, additional urban construction tax rate, education surcharges rate, corporate income tax rate, annual depreciation rate, construction period, and operational period are the same as those of the project. Furthermore, the IRR calculation method is the same as that of the project. Because of data availability, there are five project which satisfies the

post-tax project IRR estimation:

As demonstrated above, the post-tax project IRR is the threshold, which determines whether the project is financially attractive or unattractive. The estimated post-tax project IRRs of the similar projects are all higher than the benchmark (10%) based on the results in the table B.10 of the PDD. These similar projects are financially attractive. Because the post-tax project IRR of the project is lower than the benchmark, the project is financially unattractive. Therefore, the project is additional.

The audit team confirms the main financial parameters adopted to do the investment analysis are reasonable and conservative.

The audit team confirms the above common practice analysis is demonstrated appropriately and in accordance with the requirement of Tool for demonstration and assessment of additionality/3/.

3.5.7 Conclusion of assessment of additionality

In summary, serious consideration of CDM prior to the project investment decision by the project participant is clearly and sufficiently explained; appropriate actions were taken and events were held by the project participant to achieve CDM, which well justify the interval after the project investment decision up to the publication of the PDD/10/ on the UNFCCC's website and onsite validation; and investment and sensitivity analyses clearly show the project activity is not financially viable without CDM revenue; and common practice clearly presents the similar projects have better financial viability (IRR higher than the selected benchmark) than the proposed project and it is not regarded as business-as-usual project in Yunnan province. The audit team concludes that the PDD/10/ clearly demonstrate as shown in the above that the project activity is additional, not financially attractive and therefore, would not occur without CDM revenue provision

3.6 Monitoring

The monitoring plan is included in PDD/10/Section B.7 based on the approved monitoring methodology ACM0002/Version 07/2/ "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", and was correctly applied to the proposed CDM project activity. Monitoring of GHG emission reductions is based on measuring the net quantity of electricity supplied to the SCPG which is transparently presented in Section B.7 of the PDD/10/.

3.6.1 Parameters determined ex-ante

The project adopts the ex-ante calculation of the emission factor of the grid. The parameters applied in the calculation were validated by the validation team. Please refer to Section 3.4.4 for the detailed discussion.

3.6.2 Parameters monitored ex-post

According to the document review and on-site interview with representatives from the project participant and the grid company, the following parameters were required to be monitored,

- (1) The electricity supplied to the grid (EGs,y)
- (2) The electricity use of power plant supplied by the grid (PRg,y)
- (3) Installed capacity (Cappj)
- (4) Surface area of the reservoir at the full water level (Apj) and
- (5) The total electricity produced by the project (TEGy)

These parameters have been described in the monitoring plan, in which EGs,y ,PRg,y and TEGy will be directly measured by metering equipment. The readings of the electricity will be measured hourly and recorded monthly.

The surface area Apj will be calculated using the design schematics and area maps when the project is operated.

The capacity of the project Cappj will be recorded according to the installed units.

The validation team considers that the monitoring plan has complied with requirement in the approved methodology.

3.6.3 Management system and quality assurance

Monitoring of sustainable development indicators is not required by the DNA of China. The environmental impacts are considered minor and will be monitored by the local environmental authority during the project lifetime. According to the PDD/10/, the project's monitoring plan outlines the following:

Monitoring Object:

Ensure the complete, consistent, clear, and accurate monitoring and calculation of the emissions reductions during the whole crediting period.

Electricity data:

The electric energy metering will be properly configured in accordance with Technical Administrative Code of Electric Energy Metering (DL/T448-2000), and the metering equipment will be checked by both the project owner and the grid company before operation.

According to the electrical grid connection diagram, total 10 meters are required and their detailed parameters information like location, accuracy, record frequency, etc are shown in the table B.13 of the PDD/10/.

About the emergency, calibration, documents archive it is also appropriately discussed in the PDD.

Data of installed capacity and surface area of the reservoir at the full water level:

The detailed measurement method and period are indicated in the PDD/10/. For monitoring responsibility one organization chart for different roles in CDM monitoring plan is provided.

The Monitoring Report will be prepared by the project developer.

The Training Program is defined: training of staffs in CDM knowledge, operational regulations, quality control, data monitoring requirements and data management regulations.

Steps undertaken to assess the monitoring plan

According to document review in the PDD and the on-site interview with representatives from the PP; the monitoring arrangements described in the monitoring plan were assessed. It is reasonably believed that the monitoring plan would be feasible within the project operation period.

Detailed procedures will be developed in accordance with the monitoring plan. The management team for the monitoring of the project is identified in the PDD/10/. As reported by the project proponent, appropriate training was provided by the CDM consultant to the management team and operation team for ensuring that they are suitable and competent in carrying out the work.

Thus the validation team considers that the project participant is capable to implement the monitoring plan as the relevant training programs will be arranged for the monitoring team.

3.7 Sustainable Development

The host party P.R. China has ratified the Kyoto Protocol on 30/08/2002 as a party not included in Annex I and has appointed National Development and Reform Commission of the People's Republic of China as its DNA.

The audit team confirmed that the LOA from DNA in China /11/ is valid based on the document review and the cross check on the website of the CDM in China.

In the LoA from China DNA it is clearly indicated that the project Yunnan Province Luxi City Wanma River 2nd Level Hydropower Station contributes to the sustainable development of China, which has also been already described in the section A.2 of the PDD, version 3.3.

3.8 Environmental Impacts

Environmental Impact Assessment (EIA/18/) was required by the China regulation. The EIA /18/ of the project activity was conducted by Environmental Science Research Institute, Dehong Branch, which is accredited by the State Environmental Protection Administration of the People's Republic of China /19/ (now known as the

ministry of Environmental Protection of the People's Republic of China) and approved by the Environmental Protect Bureau, Dehong Branch/20/.

It is described in the EIA report /18/ about the anticipated environmental impacts by the project activity both during the construction period of and after the operation start

It is indicated that the suggestion of mitigation measures against Air environment quality/ Water environment/ Noise / Solid waste / Soil and Water Loss / Ecosystem. Little negative ecological impact on the local area was anticipated, which has been accurately reflected in section D of the PDD, version 3.3.

As stated in the EIA /18/ and its approval /20/, and the interview with the local residents and the official of the local EPB, the audit team confirmed that the EIA /18/has been conducted in accordance with local regulations and the project creates no adverse impact on the environment.

3.9 Local Stakeholder Consultation

The detailed steps taken to assess the adequacy of the local stakeholder consultation are as bellows:

1. Identification of the local stakeholders;
2. How comments by the identified local stakeholders have been invited and compiled;
3. If summarized the comments received in the PDD/10/ and if they are complete;
4. How due account was taken of any comments received and if the process has been described in the PDD/10/.

The local stakeholders of the proposed project include the local government departments and the local residents directly or indirectly affected due to the project, i.e. development and reform bureau, land resources bureau, water resources bureau, finance bureau, environment protection bureau, project owner, Beijing Tianqing Power International CDM Consulting Co., Ltd, Local water resources expert..

During audit onsite, the audit team reviewed and verified the questionnaires and the summary of the comments received /41/, the bulletin on the newspaper and the minutes of the stakeholders meeting /41/. The interviewees from the local government officials and the local residents /LoP/ also confirmed that they have been invited for the comments and they agree with and support the construction of the project.

The officials from the local DRC and EPB also claimed that they did not receive any complaints from the local residents concerning about the project activity. Hence No extra action will be taken to solve the comments received.

As it will not cause any emigrants due to the construction of the project /32/, No extra action need to be taken.

The local resident representative claimed that the construction of reservoir will make best use of local resource, and mitigate the electricity supplying shortage, bring more employment opportunities. In addition, the project will reduce the usage of firewood which in a way could help the environment protection.

In a conclusion, the local stakeholders have been consulted in an appropriate manner, and they are satisfied with and support the project construction. The affected people whose lands are occupied satisfied their compensation and thought their living conditions have been improved due to the project construction.

3.10 Comments by Parties, Stakeholders and NGOs

The DOE TÜV Rheinland Japan Ltd has decided to make the Project Design Document (PDD), version 2.0, dated on Sept.19, 2008, publicly available directly on the UNFCCC CDM website from Oct. 8 2008 to Nov. 6 2008 in order to invite comments from public stakeholders.

No public comments have been received during the comment period.

Appendix A

CDM VALIDATION PROTOCOL

YUNNAN PROVINCE LUXI CITY WANMA RIVER 2ND LEVEL HYDROPOWER STATION

REPORT NO. 01 997 9105049757

Table 1: Validation requirements					
(based on § 37 of the CDM Modalities and Procedures and on CDM Validation and Verification Manual, Annex 3 of EB44)					
Checklist question	Ref.	Mo V[1]	Findings, comments, references, data sources	Draft conclusion	Final conclusion
1. Approval					
<p>1.1 Have Letters of Approval been provided from all involved Parties?</p> <p>If yes, indicate:</p> <ul style="list-style-type: none"> — when and by which Party the LoA has been issued, with a clear reference to the LoA itself and any supporting documentation; — whether the LoA was provided to the DOE by the project participants or directly by the DNA; — the means of validation employed to assess the authenticity of the document; and — by a clear statement, that the DOE considers the LoA to be valid. 	LoA	DR,I WW W	LoAs from DNAs and MoC are still missing. Please submit them to the DOE before requesting for registration to EB.	CAR1	OK
<p>1.2 Are all Parties, who issued the LoA, Parties to the Kyoto Protocol <u>and</u> is this stated in the LoA?</p>	LoA	DR,I WW W	China is a party to Kyoto protocol since 16/02/2005 (UNFCCC website). Japan is a party to Kyoto protocol since 16/02/2005 (UNFCCC website). The both LoA are missing.	See 1.1	OK
<p>1.3 Is every LoA from the Parties involved issued by an organisation listed as Designated National Authority (DNA) on the UNFCCC web site?</p> <p>Indicate the official name of the DNA and contact person name.</p>	LoA	DR,I WW W	The both LoA are missing.	See 1.1	OK
<p>1.4 Is the participation in the CDM project activity voluntary <u>and</u> is this stated in all LoAs?</p> <p>Indicate the source of proof.</p>	LoA	DR	The both LoA are missing.	See 1.3	OK
1.5 Is the LoA unconditional with respect to 1.2 to 1.4?	LoA	DR	The both LoA are missing.	See 1.3	OK

<p>1.6 Is the title of the CDM project activity as given in the PDD identical with the title given in all LoAs and Modalities of Communication?</p> <p>Provide Yes/No answer, and include details into Tables 2, 3 and 4 accordingly.</p>	LoA, MoC	DR, I	The both LoA are missing.	See 1.1	OK
<p>1.7 If any of provided LoAs contains additional specification of the CDM project activity (PDD version number, validation report version number, amount of ER, etc.) are those specifications valid and consistent with other documents?</p>	LoA, PDD	DR, I	The both LoA are missing.	See 1.1	OK
<p>1.8 Does the project activity involve any public funding from Annex I Parties? If yes, has Annex I Party provided a written confirmation that the use of such funding does not lead to the diversion of the official development assistance.</p>	PDD	DR, I	In A.4.5 please indicate the financial investment structure to demonstrate that no official funding from Annex I parties are available to the proposed project with supporting evidences.	CAR2	OK
2. Participation (VVM E.2)					
<p>2.1 Are the Parties and project participants (PP) listed in the section A.3 of the PDD correctly <u>and</u> is this information consistent with the contact details provided in Annex 1 of the PDD?</p>	PDD	DR, I	Yes. Through checking the PDD, they are correctly listed. And the information is consistent with the contact details provided in Annex 1 of the PDD. For the specific project, P.R China is as host country. Luxi City Qinrui Wanma River Power Exploring Co., Ltd. is as the project owner. Japan is as Annex 1 party. Electric Power Development Co., Ltd. is as the CERs buyer.	OK.	OK
<p>2.2 Has every Party involved approved the participation of each corresponding PP, either by means of a LoA or by a separate written document?</p> <p>Indicate Yes / No answer and describe all inconsistencies in the Tables 2, 3 and 4 accordingly.</p>	LoA	DR, I	The both LoA are missing.	See 1.1 and 1.3	OK
3. Project Design Document (VVM E.3)					
<p>3.1 Is the PDD presented for validation based on the latest template available at the UNFCCC website?</p> <p>Indicate Yes / No answer and describe all inconsistencies in the Tables 2, 3 and 4 accordingly.</p>	PDD	DR	Yes. The PDD template employed is version 03.2, which is the latest at the time of validation according to the website below: http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html	OK.	OK

3.2 Has the PDD been established in accordance with the CDM requirements for completing PDDs issued by the CDM EB?	PDD	DR	Corrective action is needed. Refer to 4.1.	See 4.1	OK
4. Project Description (VVM E.4)					
4.1 Does the PDD contain a description, which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	PDD	DR	No. Based on the requirements of A.4.3 description of the project activity in the specific guidelines for completing the PDD version 07, the description of the project activity is not enough. Please revise the section A.4.3 in the PDD according to the requirements of the guidelines one by one.	CAR3	OK
4.2 In the case of greenfield project activity, is the project design described sufficiently by means of specifications, drawings and manuals? Provide Yes/No answer and indicate the documents which have been reviewed in relation to the issue.	PDD, FSR, EIA and their approval, river basin plan	DR	Yes, The project is a hydro power station, which is fallen into the scope 1, renewable energy. After reviewed and verified the river basin plan, the FSR and its approval, EIA and its approval provided by the PP during audit onsite, the audit team can confirm that the project design is described by means of the above mentioned documents and it is sufficient.	OK.	OK
4.3 Does the project activity reflects current good practices, uses state of the art technology or would the technology result in a significantly better performance, than any commonly used technologies in the host country? Provide the description of how validation has been carried out and what comparisons have been made.	PDD, FSR	DR, I	Yes. The audit team reviewed the electricity power yearbook (2003 to 2007), in which it is showed that at present the electricity supply in China is dominating from the fossil fuel-fired thermal plants. While the proposed project utilizes renewable energy, i.e. hydro power. It can mitigate the anthropogenic emission. Hence the project activity reflects current good practices. On the other hand the FSR of the proposed project has been completed by the qualified research institute and has been approved by the authorized government. The technology used in the project is considered as the state of the art in China.	OK.	OK

<p>4.4 In cases where the project activity involves the alteration of an existing installation or process, does the PDD provide a clear description of the differences between the project and the pre-project scenario?</p> <p>Please, provide Yes/Now answer and update Tables 2, 3 and 4 accordingly, if there is anything unclear in the provided description.</p>	PDD	DR, I	N/A. As it is a newly-built hydro power project, no existing installation or process.	OK.	OK
<p>4.5 Has physical location of the project been described sufficiently and do presented coordinates allow for unambiguous identification of the project site(s).</p>	PDD	DR, I	Yes, the central geographic coordinate of the power plant is at the longitude of 98°37'07"E and the latitude of 24°11'13"N. But not enough.	CAR4	OK
5. Baseline and Monitoring methodology					
5.1 General requirements					
<p>5.1.1 Is the methodology used in the project activity approved by the CDM EB <u>and</u> is the selected version still valid?</p>	UNF CCC, PDD	DR, I WW W	<p>Yes. The project applies the Approved consolidated baseline and monitoring methodology ACM0002 "Consolidated baseline methodology for grid connected electricity generation from renewable sources", Version 7. It is valid from 14 Dec 07 to 04 Dec 08, and requests for registration can be submitted until 04 Aug 09 23:59 GMT.</p> <p>As the GSP period of the proposed project activity is from 08 Oct. 08 to 06 Nov. 08, the project can apply version 07 of ACM0002.</p> <p>As long as the project can be submitted for requesting for registration to EB before 04 Aug 09 23:59 GMT, the selected version is valid.</p>	OK.	OK
5.2 Applicability of the selected methodology					
<p>5.2.1 Does the project activity qualify under the criteria for small-scale CDM project activities set out in § 6 (c) of decision 17/CP.7 and Annex II of the Modalities and Procedures for the CDM?</p> <p>Please provide Yes/No response and description of how this was validated.</p>	PDD	DR I	No, According to the FSR and the purchasing contract of the generation units, it is shown that the installed capacity is 26MW, which is higher than the limitation threshold 15MW of small-scale hydro power project. Hence it is a large scale hydro power project.	OK.	OK

<p>5.2.1.1 If yes, does the PDD extensively demonstrates and confirms that the small-scale project activity is not a debundled component of a larger project?</p> <p>Please indicate Yes/No answer. In case of positive conclusion provide details of the validation measures taken and data found during the procedure. Otherwise amend the Tables 2, 3 and 4 accordingly.</p>	PDD	DR	N/A. please see 5.2.1.	OK.	OK
<p>5.2.2 Are all applicability conditions of the selected baseline and monitoring methodology and all tools involved satisfied by the project activity?</p> <p>Please indicate Yes/No answer. In case of positive conclusion provide details of the validation measures. Otherwise amend the Tables 2, 3 and 4 accordingly.</p>	PDD, Tools	DR	<p>Yes. All the applicability conditions of the selected methodology and tools are satisfied by the project activity according to the applicability of methodology. The details are as follows:</p> <p>A. The project activity is the installation of a new hydro power plant;</p> <p>B. – According to the FSR, the surface area of the new reservoir resulted by the project activity is 0.02Km², as the installed capacity is 18.9MW, the power density of the power plant is 945 W/m², which is greater than 4 W/m².</p> <p>C. The geographic and system boundaries for the relevant electricity grid can be clearly identified according to the project's location and the Chinese area grid definition defined by the NDRC. The geographic and system boundaries of the project is Northwest grid, and the information on the characteristics of the grid is available.</p> <p>D. The project dose not involve fuel switching from fossil fuels according to the approval of the FSR and the site visiting.</p>	OK.	OK
<p>5.2.3 Is the selection of the applied baseline and monitoring methodology justified?</p>	PDD	DR	Yes, the selection was sufficiently justified in Section B.2 of PDD.	OK.	OK
<p>5.2.4 Is the selected methodology correctly quoted in all related documents?</p>	PDD	DR	Yes, the selected methodology, ACM0002 is quoted correctly in the PDD. Other documents have not been presented for the validation.	OK.	OK

<p>5.2.5 Does the PDD sufficiently describe all the GHG emission sources or sinks occurring as a result of project activity, which have not been accounted for under the selected methodology and are expected to contribute more than 1% of the overall expected average annual emission reductions?</p> <p>Provide Yes/No answer. Indicate the sources or sinks of GHG, which were proved to be negligible. Otherwise amend the Tables 2, 3 and 4 accordingly.</p>	PDD	DR, I	Yes, the project activity has no any emission sources, which would need to be considered in the methodology.	OK.	OK.
5.3 Project boundary					
<p>5.3.1 Does the PDD correctly describe the project boundary?</p> <p>Provide Yes/No answer. And amend the Tables 2, 3 and 4, if needed.</p>	PDD	DR	<p>In B.3 the project boundary should be clearly described according to the definition of the methodology ACM0002.</p> <p>In figure B.1 the indication of the project boundary is wrong according to the definition of the methodology ACM0002, please revise it.</p>	CAR5	OK.
<p>5.3.2 Does the PDD correctly indicate and describe the emission sources and sinks of GHG gases that are included in the project boundary?</p>	PDD	DR	<p>Yes, it is clearly described in the table B.1 of the PDD. According to the approved methodology ACM0002 version 07 the CO2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity is the main emission source.</p> <p>As the power density of the project is 945W/m2, which is greater than 10W/m2, in line with the methodology, CH4 emissions due to the new reservoir are not considered.</p>	OK.	OK.
<p>5.3.3 In cases where the methodology allows project participants to choose whether a source or gas is to be included in the project boundary, is the choice explained and justified by PPs?</p>	-	-	Inapplicability.	N/A	OK.
5.4 Baseline identification					

5.4.1 Has the procedure contained in the selected methodology to identify the most reasonable baseline scenario been applied correctly and documented in the PDD?	PDD, ACM 0002	DR	<p>No. According to the methodology ACM0002 version 07, the baseline scenario is indicated clearly i.e. if the project activity is the installation of a new grid-connected renewable power plant, the baseline scenario is the following:</p> <p>Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”.</p> <p>In this specific case, the project is a new hydro power plant, hence the identified baseline scenario of the project activity is that the equivalent annual power is supplied by the Northwest Grid.</p> <p>Hence, no procedure is contained in the ACM0002 version 07.</p>	OK.	OK.
5.4.1.1 Is the identified baseline scenario plausible?	PDD	DR	Inapplicability. Refer to 5.4.1.	N/A	N/A
5.4.1.2 Are all assumptions stated in a transparent and conservative manner?	PDD	DR, I	Inapplicability. Refer to 5.4.1.	N/A	N/A
5.4.2 Does the selected methodology require the use of tools <u>and</u> does PDD reflect that correctly?	PDD, ACM 0002	DR	Inapplicability. Refer to 5.4.1.	N/A	N/A
5.4.2.1 Were all the tools applied correctly?	PDD, Tool	DR, I	Inapplicability. Refer to 5.4.1.	N/A	N/A
5.4.3 In case the methodology requires several alternative scenarios to be considered in the identification of the most reasonable baseline scenario, have all scenarios been considered <u>and</u> have no reasonable alternative scenario been excluded?	PDD	DR	Inapplicability. Refer to 5.4.1.	N/A	N/A
5.4.3.1 Has the choice of the baseline scenario been done using conservative assumptions?	PDD	DR	N/A. refer to 5.4.1.	N/A	N/A
5.4.4 Is the identified baseline scenario reasonable according to the assumptions, calculations and rationales used in the PDD and other reference sources?	PDD	DR	The data sources footnote 6, 7, 23, 25 mentioned in the PDD are unavailable in the internet website. Please provide the correct links to the DOE and revise the PDD accordingly.	CI6	OK

5.4.5 Does the PDD describe how the national and sectoral policies relevant to the baseline scenario have been identified and considered in the PDD?	PDD	DR	N/A. refer to 5.4.1.	N/A	N/A
5.4.6 Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the project activity?	PDD	DR,I	Yes. The identified baseline scenario of the project activity is that the equivalent annual power is supplied by the South China Power Grid, which can be clearly verified according to the chinese area grid definition issued by the NDRC in China.	OK.	OK.
5.5 Algorithm and/or formulae used to determine emission reductions					
5.5.1 Are all calculations applied and documented according to the selected methodology and in a complete and transparent manner?	PDD	DR	No, clarification is needed.	CI7	OK
5.5.2 In case the methodology allows a selection between different options for equations or parameters, has adequate justification been given and have the correct equations and parameters been used, in accordance with the methodology selected?	PDD, ACM 0002	DR	Yes, the adequate justification has been given and the correct equations and parameters have been used according to the ACM0002 version 07. It is referred to the detailed validation means and process in the validation report.	OK.	OK.
5.5.3 In case some data and parameters will not be monitored throughout the crediting period, but have already been determined and fixed, are all data sources, assumptions and calculations correct, applicable to the proposed CDM project activity and conservative?	PDD	DR	Refer to 5.5.1.	See 5.5.1	OK
5.5.4 In case data and parameters will be monitored on implementation and hence become available only after validation of the project activity, are the estimates provided in the PDD for these data and parameters reasonable?	PDD, FSR	DR	Yes, according to the methodology ACM0002 version 07, the electricity generation, the net electricity supplied to the grid, the installed capacity and the surface area of the reservoir should be monitored on the implementation after the validation. Reviewed the FSR, EIA and its approval separately, the audit team can confirm all the estimates provided in PDD are appropriated.	OK.	OK.
5.5.5 Have the major risks and uncertainties, which can influence the emission reduction estimates, been identified and addressed in the PDD?	PDD	DR	No, in the PDD, there is no any risk or uncertainty have been mentioned. Clarification is requested.	CL8	OK
5.6 Leakage					
5.6.1 Has the leakage been identified and calculated according to the approved methodology?	PDD	DR	N/A.No leakages need to be considered for hydro power project according to the ACM0002 version 07.	N/A.	N/A.
5.6.2 Have the leakage been addressed in complete, conservative and substantiated manner?	PDD	DR	N/A. please refer to 5.6.1.	N/A.	N/A.

5.6.3 Are uncertainties in the leakage emission estimates properly addressed?	PDD	DR	N/A. please refer to 5.6.1.	N/A.	N/A.
6. Methodology-related issues for afforestation or reforestation CDM project activities					
Add specific A/R requirements – if applicable!			Not applicable for this CDM project activity	N/A.	N/A.
7. Additionality					
7.1 Prior consideration of the CDM (VVM E.6.III.a)					
7.1.1 Is there documented evidence provided by the project participants on how and when the decision to proceed with the project activity was taken?	PDD	DR	Yes, the PPs have provided the board decision which was issued on 07/06/2007, that the project owner decided to proceed with the project activity after CDM consideration. The audit team can confirm that the document of the board decision is valid.	OK.	OK.
7.1.2 Is the starting date of the project activity, reported in the PDD, in accordance with the “Glossary of CDM terms” and CDM VVM (§97)?	PDD	DR	Yes. The starting date of the project activity is defined as the earliest date of the project activity, which is in the specific project the date of purchase of generators on 08/10/2007. However the construction started on 21/01/2008, thus the starting date of the project activity is in accordance with the “Glossary of CDM terms” and CDM VVM (§97).	OK.	OK.
7.1.3 Is the date stated in the provided evidence consistent with other available evidence (e.g. dates of construction, purchase orders for equipment)?	PDD	DR	Yes, the starting date of the project activity in the PDD is consistent with the purchase contract of generators.	OK.	OK.
7.1.4 If the project was not published and the starting date is on or after 2 nd August 2008, was it possible to receive from UNFCCC secretariat and/or DNA a written confirmation that PPs previously informed the above entities on commencement of the project activity and of their intention to seek CDM status?	PDD	DR	N/A. As the starting date of the project activity is before August 2 nd 2008.	OK.	OK.
7.1.5 For the project activities with a starting date before 2 nd August 2008 and before the actual publication, was there enough evidence presented to prove that PPs were previously aware of CDM?	PDD	DR	Yes, after reviewed PDD and some other documents e.g. FSR and board decision etc., support letter from Luxi city government, the audit team can confirm that PPs were previously aware of CDM.	OK.	OK.

7.1.6 For the project activities with a starting date before 2 nd August 2008 and before the actual publication, was there enough evidence presented to prove that CDM benefits have been a decisive factor in the decision to proceed with the project activity?	PDD	DR	Yes, the audit team have reviewed the PDD and other corresponding evidences, e.g. FSR, Board decision and authorization letter of CDM project development, and can confirm that before the commencement of the project activity, the IRR in the FSR presented a real bad economic situation, and the project have no attractiveness for investor. After considering the benefit from CDM, the IRR will satisfy the benchmark 10%, which is required in SL16-95. The audit team hereby confirm that there are enough evidences to prove CDM benefit is the only decisive factor in the decision to proceed with the project activity.	OK.	OK.
7.1.7 Does the individual or body that took the decision to proceed with the project activity have/had the authority to do so?	PDD, Approval of FSR	DR	Mainly it's not clear. Please clarify and document whether the eight people who signed the board decision have the corresponding authority to do so.	CL9	OK
7.1.8 For the project activities with a starting date before 2 nd August 2008 and before the actual publication, was there enough evidence presented to prove that PPs were taking continuing and real actions to secure CDM status for the project in parallel with its implementation?	PDD	DR	Yes, the PPs have provided some evidence to prove that the project owner made some real actions to apply for CDM of the project activity while implementing construction. These documents are: Minutes of Stakeholders Consulting Meeting for CDM application on 09/01/2008; LOI signed with Electric Power Development Co. Ltd. on 15/01/2008; ERPA signed with Electric Power Development Co. Ltd. on 14/08/2008. After reviewed these documents the audit team can confirm they are enough to prove the continuous real action about CDM of PPs.	OK.	OK.
7.1.9 In case there is a significant gap between the start date of the project activity and the commencement of validation, how was it possible for the project participant to commit funds to the project in advance of receiving a positive validation opinion?	PDD	DR	Not clear. The starting date of project activity is 08/10/2007, but the starting date of validation is 06/11/2008. Clarification Request is needed.	CL10	OK
7.1.10 Is the starting date and length of the crediting period reported in the PDD correctly?	PDD	DR	Yes, they are reported correctly.	OK.	OK.
7.2 Identification of alternatives					

7.2.1 Does the PDD identify and list credible alternatives to the CDM project activity in order to determine the most realistic baseline scenario, unless selected approved methodology prescribes/identifies the baseline scenario and no further analysis is required?	PDD	DR	N/A. The ACM0002 version 07 applied by the project prescribes the baseline scenario and no further analysis is required. (refer to 5.4.1 of the protocol), hence the question is not applicable. Refer to 5.4.1	N/A.	N/A.
7.2.2 Does the list of alternatives include as one of the options that the project activity is undertaken without being registered as a CDM project activity?	PDD	DR	Inapplicability. Refer to 7.2.1.	N/A.	N/A.
7.2.3 Does the list contain all realistic/credible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the project activity? Note: All alternatives listed in the selected methodology should be included, as well as those not covered by the methodology.	PDD	DR	Inapplicability. Refer to 7.2.1.	N/A.	N/A.
7.2.4 Is the exclusion of the alternatives for legal reasons justified? Note: Some alternatives might be illegal, according to the local regulations, but still widely practiced due to lack of enforcement. It should be verified.	PDD	DR	Inapplicability. Refer to 7.2.1.	N/A.	N/A.
7.3 Investment Analysis					
7.3.1 Are all sources of revenues (including savings) have been considered in the PDD and all calculations?	PDD, IRR	DR, I	Yes, the audit team reviewed the FSR, loan contract, financial audit report and other documents, and can confirm that all sources of revenues have been considered in the PDD and all calculations.	OK.	OK.
7.3.2 Is the type of investment analysis selected correctly in the PDD?	PDD, IRR	DR	Yes, the correct investment analysis (option III, benchmark analysis according to the tool) was selected, based on the facts, that the project activity will have revenues and that the baseline scenario (grid consumption) would not be a similar investment project.	OK.	OK.
7.3.3 Is the selected financial indicator chosen and applied correctly?	PDD, IRR	DR	Not enough, clarification is needed.	CL11	OK
7.3.4 Is the guidance on the Assessment of Investment Analysis correctly applied? Note: Means of validation should be recorded.	PDD, IRR	DR	Not enough, clarification is needed.	CL12	OK

7.3.5 In case project participants use values from Feasibility Study Reports (FSR) is it possible to verify that the period between the FSR date and investment decision was reasonably short and FSR values did not change materially?	PDD, FSR	DR	Clarification is needed.	CL13	OK
7.3.6 Are all the values consistent between FSR and PDD <u>and</u> are inconsistencies properly justified?	PDD, FSR	DR	Yes, the audit team have reviewed the FSR, electricity tariff document and other document, all the parameters are quoted from FSR and confirmed.	OK.	OK.
7.3.7 Were all the values from FSR applicable and valid at the time of the investment decision?	PDD, FSR	DR	Not enough, clarification is needed.	CL14	OK
7.3.8 Is it reasonable to assume that no investment would be made at a rate of return lower than the benchmark by, for example, assessing previous investment decisions by the project participants or some verifiable circumstances that have lead to a change in the benchmark?	PDD	DR	Unclear. Clarification Request is needed.	CL15	OK
7.3.9 Is the Investment Analysis prepared in compliance with the latest version of the "Guidance on the Assessment of Investment Analysis" as provided by the CDM EB?	PDD, IRR	DR	Unclear. Clarification Request is needed. Refer to 7.3.4.	See 7.3.4.	OK
7.4 Barrier analysis					
7.4.1 Are there any issues addressed in the barrier analysis that have a clear impact on the financial viability of the project activity and that shall be assessed by an investment analysis?	-	-	PPs do not use the barrier analysis.	N/A	N/A
7.4.2 Do the listed barriers exist <u>and</u> is their existence substantiated? Note: (a) by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics and/or (b) by interviews with relevant individuals: including members of industry associations, government officials or local experts if necessary?	-	-	PPs do not use the barrier analysis.	N/A	N/A
7.4.3 Would any of the identified barriers prevent the implementation of the project activity but not equally prevent the implementation of the possible alternatives, in particular the implementation of the identified baseline scenario?	-	-	PPs do not use the barrier analysis.	N/A	N/A
7.5 Common practice analysis					

7.5.1 If the PPs claim in the PDD that CDM project activity is the “first of its kind”, is it justified?	PDD, Tool	DR	No. The PPs do not claim the project activity is the “first of its kind”. This question is not applicable because it is a hydropower project.	OK.	OK.
7.5.2 Are the geographical boundaries of the project activity identified correctly?	PDD, Tool	DR	Yes, the audit team can confirm the PPs have identified the boundaries" South China grid area", and then excluded Guangdong, Guangxi and Guizhou province in a credible and transparent manner. Thus the reasonable geographical boundaries is considered as Yunnan province.	OK.	OK.
7.5.3 Does the PDD provide an explanation why this region was selected and deemed more appropriate <u>and</u> is this explanation traceable and reliable?	PDD, Tool	DR	Yes, the audit team can confirm the PPs have identified the boundaries" South China grid area", and then excluded Guangdong, Guangxi and Guizhou province in a credible and transparent manner. Thus the reasonable geographical boundaries is considered as Yunnan province.	OK.	OK.
7.5.4 Are there similar operational project activities, other than CDM activities, “widely observed and commonly carried out” in the defined region? Note: Use official sources and local and industry expertise.	PDD, Tool	DR	Yes, in the PDD, the PPs have listed the similar operational project activities in Yunnan province, all the sources of similar project is from China water resource yearbook and internet website. The audit team has reviewed this data sources and description, and can confirm that the similar operational project activities have been widely observed and commonly carried out in the identified region.	OK.	OK.
7.5.5 In case there are similar commercially operated project activities, other than CDM activities, already “widely observed and commonly carried out” in the defined region, are there essential distinctions between the CDM project activity and the other similar activities?	PDD, Tool	DR	clarification is needed.	CL16	OK
8. Monitoring					
8.1. Monitoring plan					
8.1.1 Are all parameters required by the selected approved methodology or tool identified <u>and</u> listed in the PDD?	PDD	DR	Not all. Clarification Request is needed.	CL17	OK
8.1.2 Is the measurement method clearly stated for each value to be monitored and deemed appropriate?	PDD	DR	Not all. Clarification is needed. Refer to 8.1.1.	CL18	OK
8.1.3 Are values of the ex-ante parameters / monitoring parameters selected correctly and conservative in accordance to methodology or tools?	PDD	DR	Not enough.Refer to 5.5.1 and 8.1.1	Refer to 5.5.1 and 8.1.1	OK

8.1.4 Is the measurement equipment for each parameter described and deemed appropriate?	PDD	DR	Yes. In the PDD it is indicated that the electric energy metering equipment will be properly configured according to Technical Administrative Code of Electric Energy Metering (DL/T448- 2000), and the metering equipment will be checked by both the project owner and the grid company before the project start to operation. The detailed information has been described in the table B.8 of PDD. Moreover the measurement approach of other parameters such as the water surface of the reservoir etc., has also been prescribed in the PDD, they are all deemed appropriately. But refer to 8.1.1.	Refer to 8.1.1	OK
8.1.5 Is the measurement accuracy addressed and deemed appropriate?	PDD	DR	Yes, the audit team have reviewed the technical administrative code of electric energy metering, DL/T448-2000 and can confirm that the measurement accuracy addressed in the PDD is deemed appropriate.	OK.	OK.
8.1.6 Are procedures in place on how to deal with erroneous measurements <u>and</u> are the corrective actions identified?	PDD	DR	No, clarification is requested.	CL19	OK
8.1.7 Is the frequency of measurement identified and deemed appropriate?	PDD	DR	Yes, in the PDD it is stated that "Meter measured continuously and recorded on a monthly basis.", which is in compliance with the requirement indicated in the methodology. Hence the frequency of measurement is identified and deemed appropriately.	OK.	OK.
8.1.8 Is the monitoring plan documented according to the approved methodology and in a complete and transparent manner?	PDD	DR	Yes. They are described in the section B.7.2 transparently and clearly.	OK.	OK.
8.1.9 Are the sampling, measurement methods and procedures defined?	PDD	DR	Yes. It is defined in the monitoring plan.	OK.	OK.
8.1.10 Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	No, clarification is requested.	CL20	OK
8.1.11 Are the equipment calibration intervals identified and justified?	PDD	DR	No, clarification is requested.	CL21	OK
8.1.12 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	PDD	DR	Yes. The procedures are clearly identified and defined in the PDD.	OK.	OK.

8.1.13 Are the monitoring arrangements described in the monitoring plan feasible within the project design?	PDD, FSR	DR	Yes. According to the FSR and the grid-connected agreement with the local power supply company, the monitoring arrangements described in the monitoring plan is feasible.	OK.	OK.
8.1.14 Are the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, sufficient to ensure that the emission reductions achieved by / resulting from the project activity can be reported ex post and verified?	PDD	DR	Not all.	refer to 8.1.1	OK
8.1.15 Do the PPs make provisions for personnel training needs?	PDD	DR	No, clarification is requested.	CL22	OK
8.1.16 Is the authority and responsibility of overall project management clearly described?	PDD	DR	Yes. It is clearly indicated in the monitoring plan and the PDD.	OK.	OK.
8.1.17 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	There are no possible emergencies, related to the project activity, which would be able to cause direct unintended emissions because the project activity is a hydropower project in renewable energy source category.	OK.	OK.
8.1.18 Are procedures identified for review of reported results/data?	PDD	DR	Yes.	OK.	OK.
8.1.19 Is the data archiving period for this project activity stated in the PDD and appropriate? Note: All archived monitoring data, required for verification and issuance, should be kept for at least two years after the end of the crediting period or the last issuance of CER.	PDD	DR	No. clarification is needed.	CL23	OK
8.2 Monitoring of the leakage					
8.2.1 Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	ACM 0002 Ver. 07	DR	N/A. As no leakage has to be considered according to the methodology ACM0002 version 07, no monitoring shall be required.	N/A	N/A
8.2.2 Is the choice of project leakage indicators made according to selected methodology in a reasonable and conservative manner? Note: local knowledge and sectoral expertise shall also be considered.	-	-	N/A	N/A	N/A
8.2.3 Is the measurement method clearly stated and deemed	-	-	N/A	N/A	N/A

appropriate for each leakage value?					
9. Sustainable development					
9.1 Does the LoA from the Host country DNA contain the confirmation that the proposed CDM project activity contributes to the sustainable development of the host Party?	LoA	DR	No, refer to 1.1.	see 1.1	OK
9.2 If PDD indicates any additional environmental benefits of the project, other than GHG emission reductions, were those benefits properly substantiated?	PDD	DR	Additional environmental benefits have not been indicated.	OK.	OK.
10. Stakeholders' consultation and comments					
10.1 Were the stakeholders identified in appropriate and complete manner?	PDD	DR	There is no list of stakeholders and it is not clear how to identify the stakeholders.	CL24	OK
10.2 Are the identified stakeholders plausible?	PDD	DR	Unclear.	See 10.1	OK
10.3 Does PDD describe the means being used to invite local stakeholder's comments?	PDD	DR	Yes. The means being used to invite local stakeholder's comments include newspapers, consulting meeting and paper questionnaires	OK.	OK.
10.4 Were those means appropriate?	PDD	DR	Yes. Those means were appropriate.	OK.	OK.
10.5 Was the project presented to the stakeholders in unbiased manner?	PDD	DR	Unclear.	CL25	
10.6 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?	PDD	DR	During EIA process, such a stakeholder's consultation process is required by the EIA legal. And the process and results have been described in the EIA which has been provided by the PP and verified by the audit team. It is in accordance with the regulation. But for CDM application, such a stakeholder's consultation process is not required by the Chinese legal.	OK.	OK.
10.7 Is a summary of the stakeholder comments provided in the PDD?	PDD	DR	Yes.	OK.	OK.
10.8 Has due account of any stakeholder comments been taken by PPs and reflected in the PDD?	PDD	DR	Unclear, clarification is needed.	CL26	OK
11. Environmental impacts					
11.1 Is the documentation supplied by the PPs regarding environmental impacts relevant and accurately reflected in the PDD?	PDD, EIA and its approval	DR	Yes.	OK.	OK.

11.2 Is an environmental impact assessment (EIA) required for the CDM project activity? Note: determine by using a review of relevant legislation and local expertise.	PDD, EIA and its approval	DR	Yes. It is required for the project activity according to the chinese legal.	OK.	OK.
11.3 In case an EIA is required, has the EIA has been approved by local authorities and is the outcome accurately reflected in the PDD?	PDD, EIA and its approval	DR	Yes.	OK.	OK.
11.4 Does the PDD include a brief description of the environmental effects of the project, including transboundary?	PDD	DR	Yes.	OK.	OK.
11.5 Are those effects properly addressed in the design of the project activity?	PDD	DR	The PDD should indicate if PPs are required to implement any further actions related to the environmental effects of project activity.	CL27	OK
11.6 Does the project comply with environmental legislation in the host country?	PDD	DR	Yes.	OK.	OK.

[1] MoV = Means of Verification, DR = Document Review, I = Interview, www = internet search

Table 2: List of Requests for Corrective Action (CAR) and Clarification (CL)					
No.	CAR /CL	Observation (CAR/CL)	Reference	Summary of project owner response	Validation team conclusion
1	CAR	LoAs from DNAs and MoC are still missing. Please submit them to the DOE before requesting for registration to EB.	1.1	LoAs will be submitted to the DOE with this table, and MoC will be submitted to the DOE before the final validation report.	Pls see second comments.
		<p>The second comments:</p> <p>(1). Please clarify why the authority name in the Japanese LoA is not the same as the DNA presented on the UNFCCC-CDM's website.</p> <p>(2). Please justify the MoC as per the annex 59 of EB45 report and revise the MoC or PDD accordingly if possible.</p>		<p>The response to the second comments:</p> <p>Issue 1:</p> <p>(1) The DNA of Japan presented on the UNFCCC-CDM's website is "The Liaison Committee for the Utilization of the Kyoto Mechanisms".</p> <p>(2) Ministry of Economy, Trade and Industry, which issued the LoA of the project, was designated as a competent project supporting authority through the Liaison Committee for the Utilization of the Kyoto Mechanisms, along with the Ministry of the Environment. Japanese buyers request Japan LoAs from the Ministry of Economy, Trade and Industry.</p> <p>References:</p> <p>http://www.env.go.jp/en/earth/cc/021016.html</p> <p>http://www.env.go.jp/en/earth/cc/020719.html</p> <p>(3) Most projects registered on the website of UNFCCC which attained Japan LoA from the Ministry of Economy, Trade and Industry.</p> <p>Therefore, the Japan LoA of the Wanma River 2nd Level project is valid.</p> <p>Issue 2:</p> <p>MoC has been justified according to the Annex 59 of EB45 report. It complies with the requirements specified in the Annex 59 of EB45 report.</p>	<p>Issue 1: The certification body of TUV Rheinland Japan Ltd. has communicated with the DNA of Japan, and the audit team has visited the web address provided by the PPs. Thus the audit team can confirm that the Ministry of Economy Trade and Industry of Japan was accredited to issue the LoA, and this issue has been closed.</p> <p>Issue 2: Pls see third comments.</p>
		<p>The Third comments:</p> <p>(2). Please justify the MoC as per the paragraph 19 of annex 59 of EB45 report and revise the MoC or PDD accordingly.</p>		The PDD has been revised according to the paragraph 19 of annex 59 of EB45 report: the details of each authorised signatory for all project participants shall correspond to the representatives designated to the project in Annex I of the Project Design Document.	Having reviewed the revised PDD, the audit team can confirm that this issue has been closed.

2	C A R	In A.4.5 please indicate the financial investment structure to demonstrate that no official funding from Annex I parties are available to the proposed project with supporting evidences.	1.8	The Section A.4.5 has been revised to employ financing structure to demonstrate that no official funding from Annex I parties are available to the proposed project.	Pls see second comments
		<p>The second comments:</p> <p>Please indicate here all the capital source of total investment clearly and directly, with footnote of evidence.</p>		<p>The response to the second comments:</p> <p>The registered capital of the project owner is 60,000,000Yuan RMB, with reference to the business license of the project owner. The project and the Bank of China have signed the loan contract on May 5, 2008, and the project would attain 60,000,000Yuan RMB of long term loan from the Bank of China. The capital raised will be increased if the investment of the project increases. The relevant evidences business license and loan contract have been provided to DOE.</p> <p>PDD has been revised with footnote of evidence.</p>	After reviewing the business licence and the loan contract, the audit team can confirm that all the capital source of the project has been identified clearly and no any fund is from the annex I party. Thus this issue has been closed.
3	C A R	<p>No.</p> <p>(1). It is difficult to understand the statement described in the project scenario of the page 5 of the PDD for DOE, Please clearly indicate the definition of the parameters mentioned and the consecution between the different data provided in the table A.1 with the supporting data sources.</p> <p>(2). Based on the requirements of A.4.3 description of the project activity in the specific guidelines for completing the PDD version 07, the description of the project activity is not enough. Please revise the section A.4.3 in the PDD according to the requirements of</p>	4.1	<p>(1).</p> <p>The revised PDD employs the data in Table A.1 to demonstrate that in the project scenario the project chooses a total installed capacity of 18.9MW by methods of water power analysis and incremental internal rate of return.</p> <p>Definition of the parameters:</p> <ul style="list-style-type: none"> Incremental investment - incremental investment from choosing 18.9MW instead of 16MW. The incremental investment from choosing 18.9MW instead of 16MW is 5,800,000Yuan referring to the Feasibility Study Report, page 4-17. 	(1). Pls see second comments

the guidelines one by one.

(2).The actual project development history should be clearly described in section A.2 of the PDD according to the FSR and the actual situation.

- Incremental annual revenue - incremental annual electricity sales revenue from choosing 18.9MW instead of 16MW. The incremental annual revenue is 959,000Yuan referring to the Feasibility Study Report, page 4-17.

- Incremental internal rate of return - internal rate of return on the incremental investment. It is calculated with the net cash flow resulting from choosing 18.9MW instead of 16MW. The incremental internal rate of return is 15.63% referring to the Feasibility Study Report, page 4-17, which indicates that choosing 18.9MW instead of 16MW is more reasonable.

In the revised PDD, Table A.1 has been abridged, because it is unnecessary.

(2).The actual project development history is described as follows:

The Feasibility Study Report (FSR) is completed in May 2007 by Dehong Prefecture Water Conservancy and Electric Power Survey and Design Institute (hereinafter referred to as "the Institute"). It substantiates that the IRR of the project was lower than the benchmark of 10% and the project lacks financial attraction. However, based on the suggestion from the Institute and CDM information from the website

(<http://cdm.ccchina.gov.cn/web/index.asp>), the project owner knew the CDM revenues can improve the IRR of the project. Therefore the project owner made Directorate Decision and decided to apply for CDM project on June 7, 2007, and submitted the support request letter to the local government on CDM application on June 12, 2007.

(2). Pls see second comments

During this period, the project started to look for CDM consulting companies to assist the CDM application, and sent the Commission Letter on CDM application to Beijing Tianqing Power International CDM Consulting Co., Ltd. (hereinafter referred to as "Beijing Tianqing") on June 22, 2007.

Subsequently, the project owner received supporting letter from the local government on July 2, 2007. Afterwards, the project owner finally signed the Purchase Contract of Turbines and Generators on October 8, 2007 (the earliest starting date of the project activity). Therefore, it is obvious that the project owner was aware about CDM revenues before the investment decision of the project and CDM has played a decisive role in the successful implementation of the project.

The project owner and Beijing Tianqing signed the PDD Development Agreement on September 10, 2007 and Beijing Tianqing started the document collecting for PIN and draft PDD writing. But considering the important role of CDM revenues on the implementation of the project, the project owner required the Beijing Tianqing to submit the PIN and draft PDD for guaranteeing the project registration in time. Based on the requirement of the project owner, Beijing Tianqing started to write PIN and PDD and then submitted them to the project owner several months later. During this period, in order to meet the requirement of CDM application, the Stakeholders Consulting Meeting was held on January 9, 2008. At the same time, Beijing Tianqing introduced the project to Electric Power Development Co., Ltd. and after simple due diligence, the Letter of Intent (LoI) with Electric Power Development Co., Ltd. was signed on January 15, 2008.

Considering the efficiency and quality of the PIN and draft PDD, and the LOI signed with the buyer, the project owner signed the CDM Cooperation

			<p>Contract with the project owner on March 12, 2008. During this period, the due diligence and negotiation on ERPA was completed and the buyer signed the ERPA with the project owner on August 14, 2008. At the same time, in August 2008, the project was submitted to China DNA for CDM application approval, and China DNA approved the project as a CDM project, which has been announced on the China DNA website. On October 8, 2008, the project was submitted for GSP. On November 5 and 6 2008, the project was on-site validated. Since then, the CDM application work was going on smoothly.</p> <p>Therefore, the real and concrete actions to secure registration as a CDM project activity have been continuously taken in parallel with its implementation. It is obvious that CDM has played a decisive role in the implementation of the project.</p>	
		<p>(3). In the page 3 of the PDD the PP claimed that the proposed project will Provide 40 employment opportunities, increasing incomes and improving quality of life. Please indicate the data sources about the 40 employment opportunities, i.e. where man can find the regulation about the operational positions and staffs, or provide the detailed operation organization chart to the DOE.</p> <p>(4). In A.4.4 there is a wrong typo, i.e. in table A.2 should be in table A.3, please revise it.</p>	<p>(3). In the Economic Evaluation Code for Small Hydropower Projects (document No. SL16-95), hydropower stations which install 3 sets of turbine generators with each capacity more than 6MW need 54~89 employees, including: 16~39 management employees, 14~18 maintenance employees, and 28~32 operation employees. The project owner will adopt advanced management, which needs fewer employees than that required by the document SL16-95, as described in the Feasibility Study Report (page 13-1): 6 management employees, 12 maintenance employees, and 22 operation employees. 40 employees in total.</p> <p>(4). In the GSP PDD, "Table A.2" should be "Table A.3", while in the revised PDD it is "Table A.2" after Table A.1 has been abridged.</p>	<p>(3). After reviewing the code SL16-95, the audit team can confirm that the amount of the employees of the project is less than stipulated in this code, thus this issue has been closed.</p> <p>(4). The wrong typo has been corrected and this issue has been closed.</p>
		The second comments:	The response to the second comments:	(1). After reviewing

	<p>(1). (a). The scenario existing prior to the start of the implementation of the project activity, is not clear enough that why the fossil-fuel fired power generation is dominating in South China Power grid. (b). The project scenario is still unclear enough based on the guidance for completing PDD. Please revise the PDD as per the guidance for completing PDD.</p> <p>(2). Further clarification is still needed because this interpreting causes confusion based on the guidance for completing PDD, the FSR and the actual situation.</p>	<p>Issue 1: (a). In the scenario existing prior to the start of the implementation of the project activity, electricity generated by thermal power plants constitutes for 70.25% of the total electricity generated in the South China Power Grid with reference to the Table 1 of Annex 3 of the PDD. Section A.4.3 of the PDD has been revised. (b). The Section A.4.3 of the PDD has been revised according to the Guidelines for Completing the Project Design Document (CDM-PDD) and the Proposed New Baseline and Monitoring Methodologies (CDM-NM) (Version 07) (hereinafter refers to "the Guidelines for Completing PDD"). The efficiency and lifetime of the main equipments has been added into the description of the project scenario. Response: (2). The project development history has been described according to the Guidelines for Completing PDD as follows: Requirements in the Guidelines for Completing PDD If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity. Description in the PDD The starting date of the project activity is before the date of validation, and evidence is provided that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, including: (1) Suggestion from the Institute (2) Directorate Decision to apply for CDM</p>	<p>the revised section A.4.3, the audit team can confirm that the scenario existing prior to the start of the implementation and the project scenario is clear enough. Thus this issue has been closed.</p> <p>(2). Pls see third comments</p>
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	<p>(3) Commission Letter to the consulting company, Beijing Tianqing</p> <p>(4) Supporting letter from the local government on CDM application</p> <p>(5) PDD Development Agreement with Beijing Tianqing</p>
	<p>Requirements in the Guidelines for Completing PDD Project proponents shall provide an implementation timeline of the proposed CDM project activity. The timeline should include, where applicable,</p> <p>(1) the date when the investment decision was made,</p> <p>(2) the date when construction works started,</p> <p>(3) the date when commissioning started and</p> <p>(4) the date of start-up (e.g. the date when commercial production started).</p> <p>Description in the PDD</p> <p>An implementation timeline of the CDM project activity is provided in the Section B.5 of the PDD. The timeline includes</p> <p>(1) The project made Directorate Decision to apply CDM on June 7, 2007, and signed the Purchase Contract of Turbines and Generators on October 8, 2007 (the earliest starting date of the project activity).</p> <p>(2) The construction works started on January 21, 2008.</p> <p>(3) The project is expected to start commissioning in April, 2009.</p> <p>(4) The project is expected to start operation in May, 2009.</p> <p>Requirements in the Guidelines for Completing PDD Project participants shall provide a timeline of events and actions which have been taken to achieve CDM registration, with description of the evidence used to support these actions.</p> <p>Description in the PDD</p> <p>A timeline of events and actions which have been taken to achieve CDM registration is provided in the Section B.5 of the PDD, with description of the evidence used to support these actions.</p>

				The interpretation which causes confusion has been revised.	
		<p>The third comments:</p> <p>Issue 2: The PPs should seriously consider the A.2 of the guideline for completing PDD, and paragraph 58 of VVM, to provide the reader clear understanding and precise nature of the project activity, thus the background information of the project activity is necessary.</p>		<p>The PDD has been revised in accordance with the A.2 of the guidelines for completing the Project Design Document.</p> <p>The project owner acquired the development right through the local government approval (document No. DZF[2007]81) on April 26, 2007. The Wanma River is the first grade branch on the right bank of the Nujiang River, and the project is the second level hydropower station on the Wanma River. The dam is about 160m downstream from the conjunction of Wanma River and Gantanxiang River, a tributary of Wanma River, and the power house is 7,071m downstream from the dam, is located on the right bank of the Wanma River.</p>	Pls see fourth comments
		<p>The Fourth comments:</p> <p>The document Number: DZF[2007]81 in the PDD is not in compliance with that in the evidence document. Please correct it.</p>		The document Number is DZF[2007]58. PDD has been revised.	After reviewing the revised PDD, the audit team can confirm this issue has been closed.
4	C A R	Yes, the central geographic coordinates of the power plant is at the longitude of 98°37'07"E and the latitude of 24°11'13"N. But not enough. In order to more transparently describe the project location for global stakeholders, please supplement the geographic coordinates of the dam of the project in the PDD.	4.5	<p>The geographical coordinates of the project</p> <p>The power house 24°08'21''N 98°39'18''E</p> <p>The dam 24°11'35''N 98°39'40''E</p> <p>The coordinates are listed in the Section A.4.1.4. of the PDD.</p>	Having Reviewed the revised PDD and the evidence document, the audit team can confirm that the geographical coordinates of both the dam and the power plant have been described correctly. Thus this issue has been closed.

5	C A R	<p>In B.3 the project boundary should be clearly described according to the definition of the methodology ACM0002.</p> <p>In figure B.1 the indication of the project boundary is wrong according to the definition of the methodology ACM0002, please revise it.</p>	<p>5.3.1 According to the definition of project boundary by ACM0002, the spatial extent of the project boundary includes the project power plant and all power plants connected to the electricity system that the project is connected to. The electricity system is defined according to "Tool to calculate the emission factor for an electricity system". According to the guidance given above, and considering the substantial inter-grid power exchange throughout the South China Power Grid, it is justifiable to identify the South China Power Grid as the correct project boundary for this specific project. As there is net import power from the Central China Power Grid, the Central China Power Grid will be included into project boundary. Revision for the description of the project boundary has been made in the PDD Page 7 to Page 8.</p> <p>Figure B.1 indicates the project boundary, and the dashed rectangular area indicates the power plant, other than the project boundary. Figure B.1 has been revised.</p>	Pls see second comments.
		<p>The Second comments: no response.</p> <p>The third comments: The further clarification is requested that why the Zhongshan transformer substation is out of China southern power grid.</p>	<p>Zhongshan transformer substation is included in the South China Power Grid,. Figure B.1 of the PDD has been revised.</p>	Having reviewed the revised PDD, the audit team can confirm that this issue has been closed.
6	C L	<p>The data sources footnote 6, 7, 23, 25 mentioned in the PDD are unavailable in the internet website. Please provide the correct links to the DOE and revise the PDD accordingly.</p>	<p>The evidence listed in the mentioned footnotes has been replaces by new evidence. All the reference in all the footnotes will be submitted to the DOE for supporting evidence with this table.</p>	Through checking the supporting evidence and the updated footnotes, the audit team can confirm that these web links are available now. Thus this issue has been closed.

7	C L	<p>(1). The average annual power generation described in the PDD is 96,010MWh, it is inconsistent with the description in the page 168 of FSR, which is 96020MWh. Please clarify this issue with supporting evidences and use the correct data in the PDD.</p> <p>(2). Please also clarify how to get the net electricity supplied to the grid 83590MWh from the average annual power generation 96,010MWh in the revised PDD.</p>	<p>(1). Power generation is calculated as: Annual theoretical power generation = Total installed capacity * Annual theoretical utilization hours = 18.9MW * 5,080h = 96,012MWh. The calculated Annual theoretical power generation, which is used in the revised PDD, is an expected value. To calculate the annual net power supplied to the grid, which is a key parameter to calculate the IRR and the CERs, with 96,012MWh, the result will be 83,590MWh, which is consistent with that of the FSR, and will not influence the IRR calculation.</p> <p>(2). Annual theoretical power generation is calculated as: Annual net power supplied to the grid = Annual theoretical power generation * Effective power factor * (1 - Rate of power consumption by plant). Rate of power consumption by plant = 0.5%, which is determined based on the Regulation of Development Programming of Electrical Power in the Region Mainly Supplied by Rural Hydropower (SL22-92, published by the Ministry of Water Resources of China). For coefficient of effective electricity, considering the grid load characteristics, the coefficient of effective electricity of 87.5% is employed by the project, because: based on the Economic Evaluation Code for Small Hydropower Projects (Document No. L16-95, published by the Ministry of Water Resources of China), for run-of-river without regulation abilities (the grid will only take part of the electricity generated in rainy season and night), the coefficient of effective electricity should choose 70%-80%, the 87.5% used by the project is conservative;</p>	<p>(1). The audit team has checked the calculation of the average annual power generation and can confirm that 96012 MWh is a credible value. Hence this issue has been closed.</p> <p>The audit team reviewed the SL16-95, in which there are two options about the effective power electricity coefficient of a grid connected hydro power project without adjustable ability, one is 0.8~0.9 on condition that the grid company agree to absorb all power generation in the wet period and the night, the other is 0.7~0.8 on condition that the grid company absorb limited (part) power generation of the wet period and the night. Based on the actual situation of the proposed project, the selection of the power electricity coefficient 0.7~0.8 is</p>
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reasonable. And according to the conservative principle, 87.5% can be acceptable. Hence, this issue is closed.

in addition, the project connected to the Dehong Prefecture Grid where hydropower generation consists of nearly 100%, and due to the limited absorption ability, the Grid Company is not able to buy all of the electricity that could potentially be generated by the plants during the rainy season and valley power consumption load periods, so during these periods, the projects have to stop operation, and about 19.02%~28.3% of total potential annual power generation cannot be generated (Feasibility Study Report, page No. 4-19). Hence, the coefficient of effective electricity of 87.5% is conservative. Even if a coefficient of effective electricity of 100% is applied in the project, the post-tax project IRR would be lower than the benchmark of 10%. Therefore annual net power supplied to the grid = $96,012\text{MWh} \times 87.5\% \times (1 - 0.5\%) = 83,590\text{MWh}$.

(3), (4). The calculation sheet of emission reductions will be provided with the revised PDD.

(3), (4). Pls see second comments.

(3). The calculation sheet (English version) of the emission factor and reductions should be provided to the DOE in order that the audit team can check and track the whole calculation process.

(4). The calculation spreadsheet of emission reduction with formulae should be provided to the DOE.

			<p>The second comments:</p> <p>(3),(4).the emission factor of SCPG needs to be revised, and the emission reduction too.</p>	<p>Response to the second comments:</p> <p>The emission factor of SCPG has been revised according to the revision of 2008 Baseline Emission Factor for Regional Power Grids in China- 2008 the calculation of baseline BM emission factor for Regional Power Grids in China on December 12, 2008, where Operating Margin (OM) emission factor is 1.0608tCO₂e/MWh, Build Margin (BM) emission factor is 0.6816tCO₂e/MWh, and Combined Margin (CM) emission factor is 0.8712tCO₂e/MWh. The emission reduction data has been revised accordingly.</p>	<p>The data has been verified and the audit team deems the calculation results from the NDRC can be acceptable. This issue is closed.</p>
8	C L	<p>Please clarify any risk or uncertainty which will cause the variation of emission reductions.</p>	5.5. 5	<p>According to the calculation of emission reductions, project emission is zero, and the emission reduction equals the baseline emission: $BE_y = EG_y \times EF_y$. Therefore, the net power supplied to the grid EG_y and the baseline emission factor EF_y which will cause the variation of the emission reductions. Since the baseline emission factor is constant during one single crediting period, the quantity of emission reductions is only influenced by the net power supplied to the grid.</p>	

				<p>The net power supplied to the grid will be influenced by the water flow which will probably change in a particular year, but the average net power supplied to the grid will not change greatly because the annual average power supplied to the grid in the FSR was calculated by historic hydrologic data of past 35 years in the FSR and the changes of the water flow in every particular year have been considered already. (See the illustration of the Section B.5 of the PDD.) The net power supplied to the grid will also be influenced by the grid grid availability, which is the chief reason to cause the effective power factor to be lower than 100%. (See the illustration in the Page 2 of the PDD.) When the grid availability changes to 100%, the IRR of the project without CDM is still lower than the benchmark.</p> <p>These influences are not necessary to be counted in the actual CERs calculation, since the actual CERs are determined by the actual net power supplied to the grid.</p>	<p>The uncertainty has been identified and considered to be credible. Thus this issue has been closed.</p>
9	C	Please clarify and document whether the eight people who signed the board decision have the corresponding authority to do so.	7.1.7	<p>The eight people who signed the board decision are members of the board of the project owner and have the authority to sign on the board decision, which can be evidenced by the shareholders' meeting decision to decide the members of the board. Documented evidence will be provide with this table.</p>	Pls see second comments.
	L	<p>The second comments: No response.</p> <p>The third comments: No evidence of shareholders' meeting decision was found.</p>		<p>The evidence of shareholders' meeting decision will be provided with this table.</p>	<p>Having reviewed the revised PDD and the supplement shareholders' meeting decision, the audit team can confirm that this issue has been closed.</p>

1 0	C L	The PPs should clarify how was it possible to commit funds to the project in advance of receiving a positive validation opinion.	7.1. 9	<p>The project owner was aware about CDM very early and the project IRR is lower than benchmark. So this is a standard-compliant CDM project. Furthermore, the Clean Development Mechanism Management Regulation was published by the NDRC and some projects had registered or submitted to EB successfully when the project owner decided to apply the CDM. In addition, the local government gave the proposed project a substantial support for CDM applying and the project owner, Beijing Tianqing signed the PDD Development Agreement, and signed the LoI with the Electric Power Development Co., Ltd. (the CERs buyer) before the construction of the project has been started. After considering the whole things as mentioned above, the project had a full confidence to apply the CDM. Then project owner decided to construct the project. As mentioned above, it was understandable for project owner to commit funds to the project prior to the receiving of positive validation opinion.</p>	<p>After reviewing the FSR, the board decision and other documents about CDM, the audit team can confirm that before the starting date of project activity the investment analysis of the project activity reflected a worse financial situation than the benchmark, at that time the information about CDM is widely available and the CDM revenue of the project is considered sufficiently, Thus it's possible to commit funds to the project in advance of receiving a positive validation opinion. This issue is closed.</p>
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1	C	(1). Please clarify why the identified financial	7.3.	(1). The Feasibility Study Report was completed by	(1). Referring to
1	L	indicator IRR is the most suitable for the	3	the Institute based on the Chinese Economic	several Engineering
		project type and decision context.		Evaluation Code for Small Hydropower Project (SL16-95). In addition, since 1995, the institutes on	Economics books, the
				hydropower aspect in China generally apply the	audit team has found
				document (SL16-95) to make out Feasibility Study	that there are several
				Reports (FSRs), Preliminary Design Reports (PDRs),	financial indicators,
				and relevant reports. Based on the benchmark IRR	such as IRR, NPV and
				rate from the document SL16-95, the post-tax	the payback period of
				project IRR of electric power projects with a total	investment etc. After
				installed capacity below 50MW should not be lower	launching the website
				than the threshold of 10%. Therefore, the	of the ministry of
				identified financial indicator IRR is the most	water conservancy of
				suitable for the project type and decision context.	China the audit team
					can confirm there is
					only valid economic
					evaluation code for
					small scale hydro
					power project (SL16-
					95), in which only IRR
					benchmark is
					stipulated, moreover
					this code is widely
					used for small scale
					hydro power project in
					China, thus the
					identified financial
					indicator IRR is most
					suitable for hydro
					power project, this
					issue has been closed.

		<p>(2). As the official approved benchmark is issued in 1995, please clarify if the document is still valid and if it is the only benchmark document for hydro power project.</p> <p>(3). Please also clarify the official approved benchmark how to be used for investment decisions.</p>	<p>(2). The document SL16-95 belong to the Professional Standards of People's Republic of China which was approved and published by the Ministry of Water Resources of the People's Republic of China on June 2, 1995 and began to take effect on July 1, 1995 (http://www.cws.net.cn/guifan/bz/SL16-95/). In this document, the small hydropower project is defined as: the station with installed capacity no more than 50MW. In 2002, the Ministry of Water Resources of the People's Republic of China issued the "Bulletin of Valid Hydropower Technical Standard", which confirmed the document SL16-95, is still in validity and enforceable (http://www.ches.com.cn/jishubiaozhun/001.htm). Additionally, this benchmark is still in effect in 2008 (http://www.giwp.org.cn/index.do?act=mess&modu=160&mess=361). Therefore, this benchmark is still in effect.</p> <p>(3). The project use this official approved benchmark 10% to determine whether the project is financially attractive. If the project would not apply for CDM, the post-tax project IRR would be lower than 10%, and the project owner would not invest the project. Applying for CDM will increase the financial attraction and the post-tax project IRR will be higher than 10%, and therefore, the project made directorate decision to apply for CDM and invest the project.</p>	<p>(2). After reviewing the corresponding web link the audit team can confirm since 1995 the exclusive and valid economic evaluation code for small scale hydro power project has been the code, SL16-95. Hence this issue has been closed.</p> <p>(3). Comparing with SL16-95 and other economic evaluation code in China (e.g. Economic Evaluation Method and Parameter for Construction Project, version 02, issued in 1993; version 03, issued in 2006), the audit team can confirm that if IRR is lower than the benchmark 10% then the proposed project is financially unfeasible; and if IRR is equal or higher than the benchmark 10%</p>
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					then the proposed project is financially feasible. This issue has been closed.
1 2	C L	The PPs should clarify whether the guidance on assessment of investment analysis in the section B.5 has been applied correctly.	7.3. 4	The Guidance on the Assessment of Investment Analysis (Version 02) is applied correctly. See Step 2. Investment Analysis of the Section B.5 of the revised PDD.	After reviewing the revised PDD, and comparing with the guidance on assessment on investment analysis, the audit team can confirm that this guidance has been applied correctly. Hence this issue has been closed.
1 3	C L	The PPs should clarify whether the gap between FSR date and investment decision date was reasonably short and the FSR value did not change materially.	7.3. 5	The FSR was completed in May 2007, and investment decision was made on October 8, 2007 (the earliest starting date of the project); therefore, the period of time between the finalization of the FSR and the investment decision is sufficiently short.	The gap is less than half year. The audit team considered that it was reasonably short and the FSR value didn't change materially. This issue is closed.
1 4	C L	(1). The evaluation suggestion of the FSR from the local water power experts should be provided to the DOE. (2). The project owner should provide a confirmation letter that the FSR provided to the DOE to review is the same version which is provided to the local authority government for approval.	7.3. 7	(1), (2). The evaluation suggestion of the FSR from the local hydropower experts and confirmation letter that the FSR provided to the DOE to review is the same version as provided to the local authority government for approval will be provided with this table.	(1), (2). The two required document have been provided, thus this issue has been closed.

(3). The suitability of the estimated grid price need to be demonstrated by PPs. The evidences of the local electricity tariff 0.171 Yuan RMB/KWh with VAT should be provided to the DOE.

(4). Except the FSR, please clarify the data source of VAT, Urban Construction and Maintenance Tax, Education surcharge tax and Corporate income tax.

(3). The evidences of the local electricity tariff, including Notice on Adjusting Grid Price of Dehong Prefecture by Dehong Government (No. [2003]367, December 17 2003) and the Grid Connecting Agreement between the grid company and the project owner, are provided to the DOE. In these two documents, the grid price in rainy season (from June to December) is 0.15Yuan RMB/kWh while the grid price in dry season (from January to May) is 0.2Yuan RMB /kWh. The grid price 0.171Yuan RMB /kWh calculated by: $\text{Grid price} = (0.15 \times 7 + 0.2 \times 5) / 12 = 0.171 \text{ Yuan RMB/kWh}$ It is consistent with that in the FSR.

(4). VAT:
Under the Notice from Ministry of Finance and State Administration of Taxation on Agricultural Products and Taxation or Tax Exemption of Several Items, No. MOF[1994]004, the rate of VAT of small scale project is 6%, which is consistent with the rate of VAT in the Feasibility Study Report.
Urban Construction and Maintenance Tax:
Under the Provisional Ordinance from Urban Construction and Maintenance Tax in China P.R., No. [1985]19, the rate of urban construction and maintenance tax is 5%, which is different from the rate of urban construction and maintenance tax in the Feasibility Study Report, 3%. The IRR calculation in the PDD inputs the lower value of 3%, which is conservative.

(3). After reviewing the local electricity tariff document and the grid connecting agreement, the audit team can confirm that the electricity tariff used in the PDD is consistent with that in these two documents mentioned above and FSR, thus this issue has been closed.

(4). These data source has been confirmed and thus this issue has been closed.

(5). In table B.4 of the PDD it is indicated that the post tax IRR without CDM revenue and with CDM revenue is 7.48%, 13.05% respectively, while in the FSR it is indicated as 7.83% and 13.39% respectively. Please clarify this difference in the revised PDD with supporting evidences.

(6). Please analyze the electricity tariff trend in the sensitive analysis according to the local power demand in the past and in the future with supporting documents.

Education surcharge:

Under the Revision Decision from the Central Government on "Provisional Regulation of Imposing Education Surcharge", the rate of education surcharge is 3%, which is consistent with the rate of education surcharge in the Feasibility Study Report.

Corporation income tax:

Under the Corporation Income Tax Law of the People's Republic of China (promulgated March 16, 2007), the Corporation income tax is 25%.

(5). difference in total investment, corporate income tax, and etc. Because based on the Guidance on the Assessment of Investment Analysis (EB41, Annex 45), the cost of financing expenditures (i.e. loan repayments and interest) should not be included in the calculation of project IRR. Post project IRR in the PDD with CDM differs from those in the FSR because of CERs calculation, CERs price, and loan interest (as described above). The IRR calculation spreadsheet with the same calculation method as the FSR and with the same format as the PDD will be provided to DOE with this table for comparison.

Because IRR calculation in the GSP PDD has mistaken the emission factor in the second and third crediting period, and the exchange rate between EURO and RMB has been changed from 11 to 9 Yuan RMB/EURO, the IRR with CDM in the revised PDD is 12.23%, which is different from the IRR with CDM in the GSP PDD.

(6). As analyzed in the Feasibility Study Report (page 4-21~4-26), the power supply exceeds the electricity demand; therefore, the grid price will not increase after the project starts operation if considering the balance of electricity supply and demand.

However, it is impossible for the project owner to analyze the grid price trend through the

(5). Pls see second comments.

(6). Pls see second comments.

	electricity supply and demand, since the government of China has to make the grid price steady.	
<p>The second comments:</p> <p>(5). In the IRR calculation spreadsheet, the calculation of sale tax and surcharge need to be clarified. And why the O&M cost is not the same as the one in FSR?</p> <p>In order not to cause the readers confusion, please simplify this spreadsheet, remaining the necessary parameters and resulted IRR and abridging the useless information.</p>	<p>Response to the second comments (5):</p> <p>Calculation of sale tax and surcharge:</p> <p>(1) VAT = sales revenue * VAT rate</p> <p>(2) Urban construction and maintenance tax = VAT * rate of Urban construction and maintenance tax</p> <p>(3) Education surcharge tax = VAT * rate of Education surcharge tax</p> <p>The reason why the O&M cost is not the same as the one in FSR:</p> <p>The fixed assets in the FSR equal the total investment (the sum of the static total investment and the long term loan interest). However based on the Guidance on the Assessment of Investment Analysis (EB41, Annex 45), the cost of financing expenditures (i.e. loan repayments and interest) should not be included in the calculation of project IRR. Then the fixed assets in the IRR calculation of the PDD equal the static total investment (which is lower than the fixed assets in the FSR). The difference in the fixed assets results in the lower overhaul cost and fixed assets insurance. Therefore, the O&M cost in the IRR calculation of the PDD is lower than the one in FSR. The lower O&M cost has been employed for conservative purpose. However, if DOE require, we can revise it according to the FSR.</p> <p>Response</p> <p>Simplified IRR spreadsheet will be provided with this response.</p>	<p>(5). Pls see third comments.</p>

	<p>(6). Further clarification is needed how the variation of electricity tariff and other parameters would influence the IRR.</p>	<p>Response to the second comments (6): In the Sensitivity Analysis of the Section B.5 of the PDD, the variation of parameters influences the IRR in the following ways: (1) The IRR increases monotonically with the Annual net power supplied to the grid. (2) The IRR increases monotonically with the Grid price. (3) The IRR decreases monotonically with the Static total investment. (4) The IRR decreases monotonically with the Annual operating cost. The fixed input value of estimated grid price is reasonable because of the following reasons. (1) The grid price is determined following strict governmental regulations. The government of China has to make the grid price steady since the grid price is related tightly to the national economy and livelihood of people. It is unrealistic to expect whether the grid price will increase or decrease in the whole operational period. (2) The local government regulates the grid price to be 0.20Yuan RMB/kWh from January to May and 0.15Yuan RMB/kWh from June to December (Regulation of Dehong Government on Grid Price Adjustment of Dehong Power Grid, No.[2003]367) , with an weighted grid price of 0.171Yuan RMB/kWh. (3) Only fixed grid price 0.171Yuan RMB/kWh is considered in the Feasibility Study Report. (4) The grid price on the Grid Connection Agreement of the project, signed on September 20, 2007, complies with the Regulation of Dehong Government on Grid Price Adjustment of Dehong Power Grid, No. [2003]367.</p>	<p>Pls see third comments.</p>
	<p>The third comments:</p> <p>(5). The further clarification is requested detailedly about the calculation of the sales revenue. If the tax of the tariff is included or excluded.</p>	<p>The sales revenue of the project consists of two parts: (1) electricity sales revenue = net electricity supplied to the grid * grid price. The grid price includes VAT. (2) CERs revenue = CERs * CERs price</p>	<p>(5). Pls see fourth comments.</p>

<p>The fourth comments:</p> <p>(5). The calculation of VAT in the IRR calculation spreadsheet is incorrect. Please recalculate it.</p> <p>(6). Please analyse how the variable trend of electricity tariff in the whole lifetime will influence the IRR based on the historical and official data source in Yunnan province. Furthermore in the IRR calculation sheet with increasing electricity tariff please accurately calculate the annual increasing rate of O&M cost, because it is not the same as the increasing rate of payroll.</p>	<p>The IRR calculation has applied the correct equation: $VAT = \text{electricity sales revenue} * VAT \text{ rate} / (1 + VAT \text{ rate})$. Consequently, the post-tax project IRR without CER revenue has changed to be 7.53%, and the post-tax project IRR with CER revenue has changed to be 12.58%. Section B.5 of the PDD has been revised.</p> <p>Official Data of electricity price of Yunnan Province is unavailable. Therefore, official Data of 'Statistical Yearbook of China 2008' (http://www.stats.gov.cn/tjsj/ndsj/2008/indexch.htm) is used in the analysis.</p>	<p>After reviewing the revised PDD and IRR calculation spreadsheet, the audit team can confirm this issue has been closed.</p> <p>Having reviewed the data source and the complementary IRR analysis with the variable electricity tariff and O&M cost, the audit team can confirm considering the variable electricity tariff the IRR is still lower than the benchmark 10%. Thus this issue has been closed.</p>
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				<p>According to the data from the year 2001 to 2007 of 'Statistical Yearbook of China 2008', the annual increase rate of electricity price is about 2.2% on average, while the annual increase rate of operating cost is calculated with annual increasing rate of payroll, annual increase rate of material purchase price, and annual increase rate of fixed assets investment price. According to the data from the year 2001 to 2007 of 'Statistical Yearbook of China 2008', the annual increasing rate of payroll was about 15.8%, annual increase rate of material purchase price was about 4.5%, and annual increase rate of fixed assets investment price was about 2.2%. Based on these data, the annual increase rate of the operating cost is about 5.9% (Weighted Mean Value). By applying the annual increase rate of electricity price and the annual increase rate of operating cost, the IRR without CER revenue would be 8.36%, still lower than the benchmark. The related IRR calculating sheet and the copy of related statistical data will be provided with this response.</p>	
1 5	C L	Please also clarify the official approved benchmark how to be used for investment decisions.	7.3. 8	<p>The project use this official approved benchmark 10% to determine whether the project is financially attractive. If the project would not apply for CDM, the post-tax project IRR would be lower than 10%, and the project owner would not invest the project. Applying for CDM will increase the financial attraction and the post-tax project IRR will be higher than 10%, and therefore, the project made directorate decision to apply for CDM and invest the project.</p>	Referring to the issue 3 in CL11 the audit team can confirm this issue has been closed.

1 6	C L	(1).In Sub-step 4b. Discuss any similar options that are occurring, it is not so clear for the DOE that what is the distinct difference between the similar projects and the proposed project. Please re-discuss them. (2).In common practice analysis the mentioned projects which are benefiting from or apply for CDM support should be listed in the revised PDD and with the supporting documents.	7.5. 5	(1). In Sub-step 4b, comparison between the proposed project and the similar projects is calculated and listed in Table B.6, Table B.7 and Table B.8. (2). There are other projects with a similar scale which are (or were) under construction or operation in Yunnan Province and are benefiting from or applying for CDM support . According to the "Tool for the demonstration and assessment of additionality", these projects are not to be included in this analysis.	(1). Pls see second comments.
		The second comments: (1). The distinct difference is still unclear enough for the readers.		The distinct difference between the project and the similar projects in the Sub-step 4-b, Common Practice of the PDD is clarified to be more clear for the readers. The distinct difference in the financial indicators causes the similar projects to be more financially attractive. Please see sub-step 4-b of the revised PDD.	(1). Pls see third comments.

		<p>The third comments: No response.</p> <p>The fourth comments:</p> <p>(1). The essential distinction between the similar projects and the project activity is still unclear enough for the readers according to the description in sub-step 4-b of section B.5.</p>	<p>Establish a representative abstract model with average annual utilization hours, investment per kilowatt, grid price of the above analyzed 8 similar projects to represent the common practice, the basic financial parameters are listed in the following table:</p> <p>Table B.10 comparison of grid price between the project and the similar projects</p> <table><thead><tr><th>Value</th><th>Source</th></tr></thead><tbody><tr><td>Total installed capacity (MW)</td><td>18.9 Same as the project</td></tr><tr><td>Investment per kilowatt (Yuan RMB /kW)</td><td>4,586</td></tr><tr><td>Average of the similar projects</td><td></td></tr><tr><td>Annual utilization hours</td><td>5,380</td></tr><tr><td>Grid price (Yuan RMB kWh)</td><td>0.171 Same as the project</td></tr><tr><td>Annual operation cost (Yuan RMB)</td><td>2,345,900</td></tr><tr><td>VAT</td><td>6%</td></tr><tr><td>Annual depreciation rate</td><td>4.80%</td></tr><tr><td>Corporation income tax</td><td>25%</td></tr></tbody></table> <p>The post-tax project IRR of the representative abstract model is 12.17%, much higher than that of the project (7.53%) and the benchmark (10%), which is an essential distinction between these 8 similar projects and the project. Since the post-tax project IRR of the representative abstract model is higher than the benchmark, these 8 similar projects are financially attractive.</p>	Value	Source	Total installed capacity (MW)	18.9 Same as the project	Investment per kilowatt (Yuan RMB /kW)	4,586	Average of the similar projects		Annual utilization hours	5,380	Grid price (Yuan RMB kWh)	0.171 Same as the project	Annual operation cost (Yuan RMB)	2,345,900	VAT	6%	Annual depreciation rate	4.80%	Corporation income tax	25%	<p>After reviewing this demonstration, the audit team can confirm the PPs have found out the essential distinction between the similar projects and the project activity, thus this issue has been closed.</p>
Value	Source																							
Total installed capacity (MW)	18.9 Same as the project																							
Investment per kilowatt (Yuan RMB /kW)	4,586																							
Average of the similar projects																								
Annual utilization hours	5,380																							
Grid price (Yuan RMB kWh)	0.171 Same as the project																							
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VAT	6%																							
Annual depreciation rate	4.80%																							
Corporation income tax	25%																							
17	C L	<p>TEGy in the monitoring methodology are missing in chapter 7.1 and 7.2 the PDD. Please supplement it.</p>	<p>8.1.1 TEGy is used for project emission. However, the power density of the project is much greater than 10 W/m2. The emission from reservoir (PEGy) of the project will be neglected according to ACM0002 (Version 7). So the PDD does not include the information about TEG.</p>	<p>Pls see second comments.</p>																				

		<p>The second comments:</p> <p>The PPs should supplement the parameter TEGy in the section B.7 of PDD for the reason that the power density in the operational (monitoring) period is updated every year, and the surface area of the reservoir and the installed capacity should be monitored, so the TEGy should also be monitored for calculation of project emission if applicable.</p>	<p>The PDD has supplement the parameter TEGy in the Section B,7.</p>	<p>Pls see third comments.</p>
		<p>The third comments:</p> <p>Please correct the erroneous description in the table of monitored parameter "TEGy" according to the ACM0002 version 07 for the reason that the parameter "TEGy" is a monitored parameter, not a calculated value.</p>	<p>The PDD has been revised according to the methodology ACM0002 version 07, and the parameter is described as a monitored parameter. See the Section B.7.1 and Section B.7.2 of the PDD</p>	<p>Having reviewed the revised PDD, the audit team can confirm that this issue has been closed.</p>

1 8	C L	(1). In B.7.2 the calculation formulae of the net electricity supplied to the grid should be clearly indicated and demonstrate the reasonable and conservative of it in the revised PDD.	8.1. 2	<p>(1). The net electricity supplied to the grid by the project is calculated as: $EG_y = EG_{s,y} - PR_{g,y}$. $EG_{s,y}$ is the electricity supplied to the grid by the project. Considering that the other 3 hydropower stations transmit electricity to the grid through the power house of the project, and the main meter is located on the inlet of the transformer station, $EG_{s,1}$ separated into 4 parted as per the electricity supply of each station, and Electricity supplied to the grid by the project in year y is to be calculated as follow:</p> $EG_{s,y} = EG_{s,1,y} * (EG_{s,3,y} + EG_{s,4,y} + EG_{s,5,y}) / [(EG_{s,3,y} + EG_{s,4,y} + EG_{s,5,y}) + EG_{s,6,y} + EG_{s,7,y} + EG_{s,8,y}]$ <p>Electricity supplied to the specific project from the grid is to be calculated as follow:</p> $PR_{g,y} = PR_{g,1,y}$ <p>Electricity supplied to the specific project from the grid is applied with total electricity supplied to the four hydropower stations. This calculation is conservative for CER calculation, since electricity supplied to the project from the grid is a portion of total electricity supplied to the four hydropower stations from the project.</p>	(1). Pls see second comments.
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(2). Please clarify the detailed measuring methods, measuring instruments and their calibration requirements, measurement accuracy, record forms etc. of the installed capacity and water surface area of the reservoir in the PDD.

(2) .
 1. Electricity monitoring:
 (1) Measuring method: Recording the readings of electric energy meters every month. Please refer to the Section B.7 of the revised PDD for details.
 (2) Measuring instrument: Eight electric energy meters are required.
 (3) Calibration requirement: The calibration of electric energy meter should be carried out annually. All the meters installed shall be tested by the qualified metrical organization co-authorized by the project owner and Grid Company within 10 days after:
 i The detection of a difference larger than the allowable error in the readings of meters;
 ii Repair the meter caused by the failure of operation.
 (4) Accuracy: 0.5S or more accurate
 (5) Record form: Monitored data will be recorded with electronic spreadsheet and hard copy printout.
 2. Area of the reservoir measured in the surface of the water
 (1) Measuring method: surveying with a Nikon DTM-352c Total Station
 (2) Measuring instrument: Nikon DTM-352c Total Station
 (3) Calibration requirement: yearly calibrated.
 (4) Accuracy: The distance surveying accuracy is 2mm.
 (5) Record form: Monitored data will be recorded with electronic spreadsheet and hard copy printout.

(2).1. Pls see second comments.

(2).2. The audit team has checked the response and the monitoring methodology again, and can confirm this issue has been closed.

	<p>The second comments:</p> <p>(1).</p> <p>A. There are different line loss among all the lines, because they have different output voltage. The voltage of the line ammeter4, 5, 6 is 6.3kV, and the voltage of line ammeter7 is 35kV, and the voltage of line ammeter8 is 110kV. Please re-assess the correctness of the calculating formula of emission reduction of this project activity.</p> <p>B. Why does the output line M8 has no main transformer in the flowchart of P36?</p> <p>C. If existing electricity imported from other 3 projects instead of being imported via ammeter1, how to calculate the parameter PRg,y with most conservative manner?</p> <p>(2).</p> <p>1. Please provide evidence to prove the calibration interval and ammeter accuracy is applicable and update PDD accordingly.</p>	<p>Regarding to the issues presented in the comments:</p> <p>A. The ammeters M4, M5, M6, M7, M8 are all located inside the powerhouse of the project. The length of the transmission lines is too short and the discrepancy among the line loss of different voltage is little which can be ignored.</p> <p>B. The 110kV line where M8 is located is the transmission line from the Wanma 3rd Level Hydropower Station to the project. The output voltage from the Wanma 3rd level is also 110kV. Therefore, a main transformer is unnecessary inside the project on the 110kV line where M8 is located.</p> <p>C. Electricity imported from the other 3 projects does not cause project emission, because the other 3 projects are all hydropower stations. In addition, the project calculates the parameter PRg,y by $PR_{g,y} = PR_{g,l,y}$, which is conservative because $PR_{g,l,y}$ is the total electricity supplied to the four hydropower stations from the grid.</p> <p>There are a great number of standards for electricity energy meter calibration, and different authorized organizations which conduct calibration apply different standards. The organization to conduct the electricity energy meter calibration has not been dsignated yet. Therefore, the standard for the electricity energy meter calibration for the project (the evidence to prove the calibration interval) has not been determined.</p> <p>The ammeter accuracy 0.5S is applicale, according to the Technical Administrative Code of Electric Energy Metering (DL/T448-2000).</p>	<p>(1).</p> <p>A. After consulting with local expert of electric power industry in power grid company, the audit team can confirm if the length of transmission lines is sufficiently short then the discrepancy among the line loss of different volgage is extremely small which can be ignored. Thus this issue has been closed.</p> <p>B. This issue has been closed.</p> <p>C. Pls see third comments.</p> <p>(2). After reviewing the code mentioned in the PPs' response, the audit team can confirm the calibration interval and ammeter accuracy are acceptable and feasible, hence this issue has been closed.</p>
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		<p>The third comments:</p> <p>(1).C. If existing electricity imported from the other 3 projects, then this electricity will displace those which should be imported from the grid. One most possible scenario is that every power station which is connected with each other has the certain possibility to obtain the electricity from another power station when it does not generate electricity. Hence it is likely that the total electricity imported from the grid (downflow reading of M1) is zero. Thus the net electricity supplied to the grid will be overrated, please clarify this possible situation.</p>	<p>When all the electricity use of the project is supplied by the other 3 stations and the electricity imported from the grid is zero, the emission reductions of the project will not be overated, demonstrated as follows:</p> <p>(1) The total electricity supplied to the grid of the four hydropower stations is allocated to the project by the propotion (i.e. the fraction in the Equation B.17). The same method will be applied in the calculation of the other 3 stations. The sum of the calculation result is equal to the total electricity supplied to the grid by the four stations.</p> <p>(2) The total electricity supplied to the grid of the four hydropower stations is less than the total generation of the four staions and some electricity is transmitted between the four stations. Therefore the emission reductions will not be overated.</p>	Pls see fourth comments
		<p>The fourth comments:</p> <p>(1).C. The net electricity supplied to the grid by the proposed project is not conservative, this is because the electriciry which should be imported from the grid by the project will be displaced by the electricity imported from other 3 hydropower project. please correct it.</p>	<p>The Section B.7 of the PDD has been revised. The following method is applied to calculate the imported from the grid by the project for conservative purpose:</p> <p>All the plant consumption will be assumed as the power supplied by the grid for conservative purpose.</p> <p>It is conservative to calculate the net electricity supplied by the project to the grid by subtracting from , other than subtracting electricity supplied to the project by the grid from , because electricity supplied to the project by the grid is always less than .</p> <p>See detail in the revised PDD.</p>	After reviewing the revised PDD, the audit team can confirm the PPs have adopted a conservative manner to calculate the electricity imported from the grid, thus this issue has been closed.
19	C L	Please clarify how to deal with erroneous measurement for ammeter and supplement it in the PDD accordingly.	<p>8.1.6</p> <p>If inaccuracy of the reading data from the meters M1 and Mn (n=3..8) exceeds the allowable tolerance or the meters malfunction, alternative conservative calculation methods will be employed in these months. See the detail description in the Page 38 of the revised PDD.</p>	This relevant information has been described in the PDD, the audit team can confirm this issue has been closed.

20	C L	Please clarify whether there are installation, operation and maintenance Manual of the project activity and how to ensure the normal operation of all equipments (in particular the monitoring equipment) in PDD.	8.1.10	<p>To ensure the normal operation of the project, the project has taken intallation, operation and maintenance manual.</p> <p>As soon as one or more meters are discovered to exceed the allowable tolerance or malfunction, back-up meter(s) with the same technical specifications will be installed to substitute for the inaccurate meter(s).</p>	This relevant information has been described in the PDD, the audit team can confirm this issue has been closed.
21	C L	Please clarify the identification of the calibration intervals of the measurement equipment by means of the selected national standard, which is also required to indicate in the PDD clearly.	8.1.11	The national measurement verification regulation Verification regulation of electrical energy meters with electronics (JJG596-1999 page No. 19) requires that the period of verification of electrical energy meters in use is five years, and the electric energy meters should be calibrated annually.	Pls see second comments.
		The second comments: Please describe the relelant information in the PDD accordingly.		The relevant calibration information has been described in the revised PDD. Please take reference to the Page 39 of the revised PDD.	After reviewing the PDD, the audit team can confirm this issue has been closed.
22	C L	Please clarify whether the staffs of the plant were trained to hold the monitoring approach in hand, and if yes, provide training records to DOE. The training affairs should be supplemented in the section B.7.2 of the PDD.	8.1.15	<p>The station staff of the plant will be trained to hold the monitoring approach in hand as following:</p> <p>Monitoring staff training will be conducted by Beijing Tianqing Power International CDM Consulting Co., Ltd. before the project is registered. The monitoring staff training will include monitoring equipment, monitoring program, monitoring data, monitoring report, etc.</p> <p>The project has not started the operation, and the monitoring training has not been conducted.</p> <p>Training affairs have been supplemented in the section B.7.2 of the PDD.</p>	After reviewing the PDD, the audit team can confirm the relevant information about the staffs training has been described in section B.7, and the training records has been delivered to audit team, thus this issue has been closed.

2 3	C L	In the page 38 of the PDD that all data records will be kept for a period of 2 years following the end of the crediting period. As the proposed project has chosen the renewable crediting period 3*7 year, please clarify the indicated crediting period is the first crediting period or the whole 3*7 year crediting period and revise it in the PDD accordingly.	8.1. 19	It should be "All data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period." It has been revised in the page 42 of the PDD.	Pls see second comments.
		The second comments: The page number 42 is wrong.		It has been revised in the page 39 of the PDD.	The error about page number has been corrected, thus this issue has been closed.
2 4	C L	Please clarify how to select the stakeholders in questionnaires investigation and consulting meeting based on credible approach. And the list stakeholders should be appended in section E.1 of the PDD.	10. 1	The questionnaires investigations are distributed to the stakeholders of this project, especially to the people who were affected directly by the project. These stakeholders include a proportion of women and educated people. The bulletin about the consulting meeting was announced by means of publishing on the local newspaper. In the bulletin, the project owner noticed that all the potential stakeholders could know the detailed information on the project. We have appended the list of stakeholders in section E.1 of the PDD.	Pls see second comments.
		The second comments: No response. The third comments: In the official document: <i>Preliminary Examination of the Land Used for Wanmahe II rundle Construction Projects</i> , document No. DGTZY[2007]18, it is stated that there are forest land with the amount of 5.748 hectare and infield with the amount of 0.253 hectare, which are utilized by the project activity. Please indicate how many people was impacted due to the land utilization and what their opinions are about		The 5.748 hectare forest land used by the project is state-owned and no local resident was impacted due to the forest land utilization. The forest land utilization was approved by the Forestry Departement of Yunnan Province. There are 11 people who are impacted due to the 0.253hectare infield land utilization. The project owner has paid the compensation and all the people are satisfified.	Pls see third comments.

		the proposed project, providing evidence. The fourth comments: Please provide the evidence about the description in the PPs' third response.		The evidence will be provided with this response. The PP needs to correct that there are 13 people who are impacted due to the infield land utilization.	The audit team can confirm this issue has been closed.
2 5	C L	(1). Please clarify how the PPs present the project to the stakeholders in unbiased manner transparently. (2). In E.1 the resettlement situation due to the proposed project and how they have been consulted should be clearly described.	10. 5	(1). The project owner presented the project to the stakeholders in the following ways: A. The project owner distributes questionnaires to the residents around the project site. B. The project owner posted bulletins for the meeting of stakeholders around the affected area where the local residents often visit. C. The project owner published a bulletin for the meeting of stakeholders on the local newspaper Dehong United News. D. On the bulletins for the meeting of stakeholders and during the meeting of stakeholders, the project introduced the project to all the stakeholders, and received feedbacks from the stakeholders. By these ways, the project owner presented the project to the stakeholders in unbiased manner transparently. (2). The proposed project does not result in any resettlement, which is confirmed by the approval from local Resettlement Development Bureau, the questionnaires of local residents, and the on-site validation. The descriptions of resettlement situation due to the proposed project have been added to Section E.1 and E.2 of the PDD.	(1). These approaches are reasonable and have been substantiated, thus this issue has been closed. (2). After checking the local official document about the resettlement, the audit team can confirm that there is no resettlement involved in the project activity, thus this issue has been closed.
2 6	C L	In E.3 the following description should be added in the PDD: 1. which comments have been received? 2. which action has been taken according to the received comments.	10. 8	According to questionnaires and stakeholders consultation meeting, all the stakeholders support the construction of the project. All the stakeholders think the project will not bring negative influence on ecological environment and will benefit local electricity supply and increase the income of local residents. No extra action is necessary to be taken to address the comments received other than actions listed in the	After checking the questionnaires and the minute of the stakeholders consultation meeting, the audit team can confirm this issue has been closed.

				Environment Impact Assessment.	
2 7		C L	The PDD should indicate if PPs are required to implement any further actions related to the environmental effects of project activity.	11. 5 The project participants and the host party involved think this specific project will bring no negative environmental impact and it is unnecessary to take further actions to eliminate the environment impacts.	This issue has been closed.

Qualification

Zhou, Kai /

Emission Trading United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level:
(Qualifikationsstufe)

Auditor

External:
(Externer)

☐ ja

Add. reviewer:
(Zusätzlicher Prüfer)

☐ yes

EAC Scopes:
(EAC Branchen)

CDM 01 – Energy industries (renewable – / non-renewable sources)
CDM 05 – Chemical industry

Add. qualification:
(zus. Qualifikation)

First Appointment:
(Erstberufung)

2008/08/24

Valid to:
(Gültig bis)

2011/08/23

Remarks:

Languages:

Chinese simplified
English
German

Experience Exchange

Date

Location

Remarks

Accreditation(s)

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next Monitoring:
(nächste Beurteilung)

Remarks:

[View / Edit Monitoring](#)

History of scope allocation

Date: 2008-09-25

Change: EAC CDM, CDM added

By: Manfred Brinkmann

Reason: 1st project to be accompanied by an appointed team leader for 'monitoring' and mutual exchange of experience & knowledge

Appointment for scope 1 based on project experience (almost exclusively Hydropower), therefore limited to renewable energies; other projects subject to case-by-case decision.

History

Created:	2008/09/01 18:27:46	Kai Zhou/Gz/Chn/TUV
Modified:	2008/09/01 18:28:58	Kai Zhou/Gz/Chn/TUV

Qualification

Brinkmann, Manfred /

Emission Trading United Nations Framework Convention on Climate Change

Auditor No.:
(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level: Auditor
(Qualifikationsstufe)

External:
(Externer)

☐ ja

Add. reviewer:
(Zusätzlicher Prüfer)

☒ yes

EAC Scopes:
(EAC Branchen)

CDM 03 – Energy demand
CDM 04 – Manufacturing industries
CDM 05 – Chemical industry
CDM 10 – Fugitive emissions from fuels (solid; oil and gas)
CDM 11 – Fugitive emissions from production and consumption
of halocarbons and sulphur hexafluoride
CDM 12 – Solvents use
CDM 01 – Energy industries (renewable – / non-renewable
sources)
CDM 06 – Construction
CDM 13 – Waste handling and disposal

Add. qualification:
(zus. Qualifikation)

First Appointment: 2004/03/03
(Erstberufung)

Valid to: 2010/03/03
(Gültig bis)

Remarks:

Languages:

German
English
French

Experience Exchange

Date

Location

Remarks

Accredita

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next
Monitoring:
(nächste
Beurteilung)

Remarks:

[View / Edit Monitoring](#)

History of scope allocation

Date: 2004-03-05
Change: EAC CDM, CDM added

By: Klaus-Dieter Fritsch
Reason:

Date: 2004-03-03
Change: EAC CDM, CDM, CDM, CDM, CDM, CDM added
By: Klaus-Dieter Fritsch
Reason: Qualification is based on the applicant's ISO 14001 auditor qualification.

History

Created: 2003/12/11 14:27:13 -
Modified: 2007/11/22 12:00:46 Manfred Brinkmann/Jpn/TUV