

Validation Report

Report for:

Sichuan Jiarong Dayu Hydropower
Development Co., Ltd.
China Power Complete Equipment Co., Ltd.

Validation of CDM project for
Sichuan Cong'en 8 MW Hydropower Project

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Contents

1	<i>Executive Summary</i>	3
2	<i>Introduction</i>	5
2.1	Objective	5
2.2	Scope	5
2.3	GHG Project Description	6
3	<i>Methodology</i>	6
3.1	Review of documents	6
3.2	Follow-up interviews	6
3.3	Resolution of clarification and corrective action requests	6
3.4	Internal quality control	7
4	<i>Validation findings</i>	7
4.1	Participation requirements	7
4.2	General description	8
4.3	Baseline methodology	9
4.4	Emission reductions	15
4.5	Monitoring methodology and monitoring plan	18
4.6	Duration of the project activity / crediting period	18
4.7	Environmental impacts	18
4.8	Stakeholders' comments	19
5	<i>Comments by parties, stakeholders and NGOs</i>	20
6	<i>Validation Opinion</i>	21
7	<i>Appendices</i>	22
7.1	Appendix A: Letter of approval for the project by the host and investing country DNA.	22
7.2	Appendix B: List of documents reviewed	22
7.3	Appendix C: List of persons interviewed	24
7.4	Appendix D: How due account has been taken to the public input made to the validation requirements	25
7.5	Appendix E: Certificate of Appointment	25
7.6	Appendix F: Validation findings log	25

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1 Executive Summary

Lloyd's Register Quality Assurance Limited has been contracted by China Power Complete Equipment Co., Ltd., representing the project participants (PP), to undertake validation of the proposed project activity "Sichuan Cong'en 8MW Hydropower Project". The validation has been performed by document review based on the project design document (Version 01 dated 07/12/2007 and the subsequent revised PDDs), follow-up interviews with the stakeholders and resolution of outstanding issues and issuance of the validation report.

The project activity is to implement 8MW run-of-river hydropower project in Barkam Country, Aba Tibet and Qiang Autonomous Prefecture, Sichuan Province of China. The project activity is grid-connected electricity generation from clean hydropower source and expected to contribute in reduction of CO₂ emissions by displacement of electricity generation by the other power plants connected to the Central China Grid (CCG) of which fossil fuel firing plants are the major source.

The fulfilment of the requirements as set forth in the Article 12 of the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC), the modalities and procedures for a CDM and relevant decisions of the Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol (COP/MOP) and the Executive Board of the CDM (CDM-EB) has been evaluated and the conformance to the validation requirements were confirmed based on the given information. A risk based approach was taken to conduct the validation and corrective action requests (CARs) and clarifications (CLs) were raised for relevant actions by the PP.

The validation team is of the opinion that the proposed project activity as described in the project design document Version 04 dated 21/07/2008 meets all the relevant UNFCCC requirements for CDM as well as the host country's national requirements, and if implemented as designed, is likely to achieve the emission reductions and contribute to the sustainable development of the host country. Therefore LRQA requests the registration of "Sichuan Cong'en 8MW Hydropower Project" to the CDM Executive Board as a CDM project activity.

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Abbreviations

BM	Build Margin
CARs	Corrective action requests
CCG	Central China Grid
CDM	Clean Development Mechanism
CDM-EB	Executive Board of Clean Development Mechanism
CDM M&P	Modalities and procedures for a clean development mechanism
CER	Certified Emission Reduction
CLs	Clarifications
CM	Combine Margin
COP/MOP	Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol
CPCEC	China Power Complete Equipment Co., Ltd.
DNA	Designated National Authority
EIA	Environmental impacts assessment
GHG	Greenhouse gas
GWh	Gigawatt hours
IPCC	Intergovernmental panel on climate change
IRR	Internal rate of return
KP	Kyoto Protocol of the United Nations Framework Convention on Climate Change
LoA	Letter of approval
LR	Lloyd's Register
LRQA	Lloyd's Register Quality Assurance Limited
MW	Megawatt
NGO	Non governmental organization
OM	OPERATION Margin
PP	Project participant
PPA	Power purchasing agreement
PDR	Preliminary Design Report
SSC M&P	Modalities and procedures for small scales CDM activities
PDD	Project Design Document
tCO _{2e}	Ton of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change

2 Introduction

The project participant (PP) represented by China Power Complete Equipment Co., Ltd has contracted with Lloyd's Register Quality Assurance Limited (LRQA) to undertake validation of the proposed project activity "Sichuan Cong'en 8MW Hydropower project". This report summarises the findings through the validation process that has been conducted on the validation requirements of the CDM.

The validation has been undertaken by the team formed of the qualified personnel of LRQA as follows.

Mr. Michiaki Chiba	LRQA Ltd. GHG Unit	Team Leader, CDM Validator
Mr. Zhiyong Wang	LRQA China	Team Member, CDM Validator
Mr. Prabodha C. Acharya	LRQA India	Team Member, CDM Validator, Sector Expert
Mr. Ketan S. Deshmukh	LRQA India	Technical Reviewer, CDM Validator, Sector Expert
Dr. Anne-Marie Warris	LRQA Ltd. GHG Unit	Final Reviewer/Decision Maker

Personnel being engaged in a CDM project validation are qualified based on the established procedures of LRQA to assure the resource requirements that satisfy all the requirements of competence criteria for a DOE under CDM CDM-ACCR-06. LRQA is accredited/designated as an operational entity and holds the full responsibility on decision-making regarding the validation in accordance with the accreditation requirements of the CDM-EB. The certificate of appointment of the team personnel is attached to this report.

2.1 Objective

Validation is the process of an independent third party evaluation of a project activity against the requirements of the CDM as set out in the Article 12 of the Kyoto Protocol, the CDM M&P, the present annex, subsequent decisions made by the COP/MOP and CDM-EB, and the other rules applicable to the proposed project activity including the host country's legislation and its specific requirements for sustainable development on the basis of the PDD.

2.2 Scope

The scope of validation is an independent and objective review of the project design. Review of the PDD is conducted against the requirements of KP, the CDM M&P and relevant decisions of the COP/MOP and the CDM-EB. LRQA follows a risk-based approach in the validation focusing on the identification of significant risks for project implementation and generation of CERs. Validation is not meant to provide any consulting towards the PP, however, the corrective actions requests (CARs) and clarifications (CLs) might provide input for improvement of the project design. A validation conclusion shall become final subject to the decision maker's review and the review by the LRQA Ltd.

2.3 GHG Project Description

The project is aiming at implementation of 8MW run-of-river hydropower project on the main stream of Chabao River in Dazang Village, Barkam County, Aba Tibet and Qiang Autonomous Prefecture, northwest of Sichuan Province. The project comprises of 2 hydropower turbine and generator units each has 4MW generation capacity. The expected electricity generation is 34,998.7 MWh annually. By running the grid-connected generation from clean hydropower source, the project is expected to result in reduction of CO₂ emissions by displacement of electricity generation by the other grid connected power plants of which fossil fuel firing plants are pre-dominant.

The estimated average annual emission reductions by the project activity is 34,127 tCO₂e

3 Methodology

3.1 Review of documents

The validation is performed primarily based on the review of the project design document (PDD) and the other supporting documentations. The PDD Version 01 dated 07/12/2007 was initially reviewed and LRQA requested the PP to present the supporting information and documents related with the project design and such additional information and documents were also reviewed by LRQA. Through the process of the validation, the PDD and the supporting documents of the same were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by LRQA. The documents reviewed by LRQA are listed in the Appendix B.

3.2 Follow-up interviews

Follow-up interviews with the stakeholders and field survey were conducted to the parties and in the schedule as below.

18 Dec. 2007	Barkam Development and Reform Commission . Barkam Environmental Protection Bureau Barkam Electricity Power Company Limited
19 Dec. 2007	Dazang town Cong'en hydropower site survey Representatives of local farmers of Dapa village, Dazang town CDM Development Centre of China Power Complete Equipment Co., Ltd. Sichuan Jiarong Dayu Hydropower Development Co., Ltd

The list of persons interviewed is shown in the Appendix C.

3.3 Resolution of clarification and corrective action requests

Findings identified in the process are indicated under the titles Corrective Action Requests (CARs) and Clarifications (CLs). CARs and CLs require the PP to take relevant actions. Criteria for judging items as CAR or CL are as follows:



Corrective Action Request (CAR):

- 1) Non-conformity to the laws and regulations of the host country
- 2) Non-conformance with the Kyoto Protocol, CDM M&P and the other relevant criteria
- 3) Items which would affect CER calculation significantly

Clarification (CL) Request:

- 1) Insufficient descriptions from the viewpoint of accuracy, reliability, completeness, consistency and other criteria.
- 2) Ambiguous and difficult-to-understand descriptions, as well as matters for which additional descriptions are desired.

3.4 Internal quality control

The technical review by a qualified person independent from the validation team was conducted on the draft validation report prior to the submission to the PP. After consideration of the corrective actions by the PP, the final validation report was reviewed by the technical reviewer and the authorized decision maker before requesting registration of the project activity.

4 Validation findings

The findings of the validation are stated in the following sections. The further detail of each finding is shown in the Validation Findings Log.

The findings are structured based on the main validation scopes as follows.

- Participation requirements
- General description
- Baseline methodology
- Emission reductions
- Monitoring methodology and monitoring plan
- Duration of the project activity / crediting period
- Environmental impacts
- Stakeholders' comments

4.1 Participation requirements

The host party of the proposed project is People's Republic of China. China approved the Kyoto Protocol on 30 August 2002. The Climate Change Office of the National Development and Reform Commission has been designated as the national authority for the CDM. The Letter of Approval (LoA) for the project was issued by China DNA in March 2008. The voluntary participant and achieving sustainable development are confirmed.

The Annex 1 country – Japan accepted the Kyoto Protocol on 4 June 2002. The Cabinet Secretariat of Assistant Chief Cabinet Secretary is designated as the national authority for the CDM. On 10 June 2008, the Japan DNA approved the buyer the voluntary participant for Sichuan Cong'en 8MW hydropower project.

The details see CAR1.

CAR1

CAR1 was issued related with the host and Annex I country approval. The PP did not present LoA to validation team on initial phase on validation process.

The PP subsequently presented the LoA of China DNA and Japan DNA to validation team. The voluntary participation was authorized by both Parties' DNA and contribution in achieving sustainable development was confirmed by China DNA. The participation requirements have been satisfied and CAR1 was closed.

4.2 General description

The project is a run-of-river hydropower generation project to install 2 hydropower turbine units on the main stream of Chabao River in Dazang Village, Barkam County, Aba Tibet and Qiang Autonomous Prefecture, Sichuan Province of China.

The project activity constructs 8.8m maximum height of water intake dam and 1,807.47m long underground tunnel to deliver water flow to the power house. Each turbine generator unit has 4 MW power generation capacity using design water head of 114m and design water flow of 4.27m³/s. The size of hydro turbine and generator technology has been localized in China and the project employs domestically produced equipments. The project will produce 34,998.7 MWh electricity annually based on the estimated hydrology data that is detailed in the Preliminary Design Report (PDR) formally approved by the host Government. The electricity produced is transferred the grid system through 35kV transmission line.

The project is expected to contribute in sustainable development of the host country by reducing pollution associated with the energy production and supplying the clean energy produced from renewable sources, producing employment opportunity to the local people in China.

The project has no plan to receive public funding from the Annex I countries. The project owner provides the fund mainly from its own fund and the loan from Agricultural Development Bank of China is used.

The project owner has been given a licence for hydropower development on Chabao River and has a plan to develop the other hydro power projects upstream and down stream of the project plant in the future. The validation team checked the registration and application of the other projects on the official information source of China DNA and confirmed no other small scale project has been registered or applied for registration as of the time of validation. The present plan showed that only the proposed project activity has been in the implementation stage and the closest distance to the project boundary of the other projects will be more than 1km from the project boundary and it was confirmed on the official document. Therefore the project activity is not considered as a debundled component of a large scale project activity even when the project owner decided to implement the other project activities around the project site in the future if it follows the present plan.

The description in the PDD was cross checked with the PDR and the official documents of the host Government and the relevance was confirmed by the validation team.

4.3 Baseline methodology

Application of baseline and monitoring methodology

The project applies the approved simplified baseline and monitoring methodology AMS-I.D. "Grid connected renewable electricity generation" Version 12.

The AMS-I.D. is applicable to renewable energy generation units including hydro that supply electricity to and/or displace from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit. The project has 8MW generation capacity that is less than the eligibility limit of the small scale CDM project activity. The major source of energy of the connected regional electricity grid CCG is fossil fuel. The validation team reviewed the design and technical specification of the project activity, connection to the electricity system and definition of the grid boundary by the China DNA and the energy sources and confirmed that the proposed project meets the applicability criteria of the AMS-I.D.

The methodology was later revised and the AMS-I.D. Version 13 has become valid since 14 December 2007. But the applied version of the methodology as used for public comments on the validation requirements is valid for requesting registration before 13 August 2008 in accordance with the Procedures for the revision of an approved baseline or monitoring methodology by the Executive Board. The approved methodology ACM0002 referenced in the AMS-I.D. Version 12 for determination of the grid emission factor has been also revised to version 07. But the ACM0002 version 06 is also applicable for requesting registration of the project activity if it is requested on or before the expiry date of 13 August 2008.

Project boundary

The project boundary encompasses the physical, geographical site of the renewable generation source and displaced fossil fuel based power plant sources. According to Notification on Determining Baseline emission factor of China Grid issued by China DNA, the Central China Grid consists of Provincial Grids of Henan, Hubei, Hunan, Jiangxi, Sichuan and Chongqing Municipality. The validation team confirmed the appropriateness based on the official definition issued by the China DNA. The project activity involves the 8.8m height intake dam, 1,807.47m length underground tunnel and the power house as the main components. 35kV transmission line to the nearby substation belongs to the connected electricity grid system.

Baseline scenario

The four scenario options are discussed in the PDD that are : a) the proposed project activity not undertaken with CDM; b) construction of a fossil fuel based power plant to supply equivalent amount of electricity; c) construction of other

renewable power plant such as wind or solar power plant; d) supply of equivalent electricity from the CCG.

The validation team reviewed the statements and the background national and regional information.

The option a) is not considered as baseline subject to additionality of the project activity to be demonstrated.

In China, construction of fossil fuel based small power plant is restricted for pollution prevention purpose by law and it is clear that constructing the equivalent size of fossil fuel based power plant is against the development policy of the host country. Therefore the option b) cannot be a plausible baseline scenario.

Use of hydro power is mature technology in China while the other renewable resources have not widely demonstrated in a commercial scale. The region covered by the CCG is rich in hydro resources while few wind and other renewable sources have been established in the region. These other renewable sources constitute about 0.02% of total installed capacity as of year 2005. The hydro power plant sites that have not already been developed require relatively higher per unit capacity investment cost but it is still more feasible than those new energy sources not widely spread in the region and the option c) is not considered as a plausible baseline scenario.

The option d) only remains and it has no conflict with the national policy and requires no implementation costs. Therefore the option d) is considered as the baseline scenario.

The host country Government has been encouraging development of renewable energy sources and the project activity is also given the incentive of income tax exemption and reduction for the first few years and the benefit has been taken into consideration in the investment analysis.

CAR2

Summary information of the national policies and circumstances relevant to the baseline of the proposed project activity was not found in the PDD (version 01) and CAR2 was issued to this point.

The validation team received the revised PDD describing the energy policies of the host country. The validation team evaluated based on the related information of the host country including the energy legislation for small fossil fuel plant, notification on determining baseline emission factor of China's Grid, China energy strategy and confirmed that the statement in the PDD has been established following the national policy and circumstances of the host country. CAR2 was therefore closed.

Additionality

Additionality of the project activity is demonstrated based on the Attachment A to Appendix B of the SSC M&P.

As a small hydropower development project located in poor mountainous area, the project faces barriers for investment such as higher per unit capacity investment cost and lower feed-in-tariff for sale of generated electricity that make the project an economically unattractive course of action. The investment barrier is considered the most prohibitive factor in implementing the project activity.

Among the three approaches of investment analysis recommended in the Tool for demonstration and assessment of additionality, the PP selected the benchmark analysis using IRR as the analysis method. Simple cost analysis can not be applied because the project activity produces other revenues than those associated with the sale of CERs specifically sale of electricity produced. Investment comparison analysis can not be applied because the baseline scenario is equivalent electricity supply by the electricity grid system that does not have investment activity.

As a hydro power project, the project activity could be developed by other entity than the project participant and a benchmark should base on a publicly available data source. The benchmark used for the investment analysis has been determined by the Ministry of Water Resources of the P.R. China and it was confirmed as publicly available at

<http://apps.lib.whu.edu.cn/12/test/gfbz/2/j/xsdpj.html>. The data source is the Economic Evaluation Code for Small Hydropower Projects SL16-95 that is applied to the economic evaluation in the formal FSR and PDR to be approved by the Government of China for small hydropower project with the capacity equal to or less than 25MW (50MW for a project in rural area). The proposed project activity has 8MW installed capacity and the benchmark for FIRR is 10% according to the referenced Economic Evaluation Code. If IRR is higher or equal to the benchmark, the project is considered financially feasible otherwise the implementation of the project is not permitted by the Government.

The Economic Evaluation Code SL16-95 was published on 2 June 1995 and became effective on 1 July 1995. The validity of the benchmark at the decision making for investment to the proposed project activity was confirmed with the bulletin of the Ministry of Water Resources on valid technical standards for hydro energy projects [2002]07 issued on 18 June 2002 as available at

<http://www.ches.com.cn/jishubiao/hun/001.htm> and [2006]05 issued on 9 September 2006 as available at

http://www.chinawater.net.cn/jishujiandu/CWSNews_View.asp?CWSNewsID=24696.

The investment decision for the proposed project activity was made based on the Preliminary Design Report completed in November 2004 that concluded that the project activity was financially feasible if it would be developed as a CDM project activity though the project FIRR was lower than the standard value of 10% based on the Economic Evaluation Code for Small Hydropower Projects SL16-95, the real investment actions were taken from 28 March 2006 and the approval of the Preliminary Design Report by the local government was released on 19 December 2006. The chronology of the project activity was cross-checked with the information publicly available as above referenced and it was confirmed that the Economic Evaluation Code was valid when the investment decision was made for the project activity. The validation team also conducted a research on the similar

CDM project activities in China and confirmed that the same standard is applied for the investment analysis in a consistent manner.

The parameters used for the IRR analysis include installed capacity, total investment, annual electricity delivered, tariff, VAT, Town building maintenance tax, surcharge for education, income tax, and annual O&M cost. The calculation process is provided in the excel worksheet in a transparent manner. The validation team assessed the calculation and the supporting evidences. The calculation results show the project IRR is 7.83% without CDM and 14.29% with CDM. The result indicates the project is not financially attractive as the project IRR is lower than the benchmark but it can be feasible above the industrial benchmark if it is implemented as a CDM project activity.

In paragraph 54. of the 38th meeting, the CDM-EB clarified that in cases where PPs 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 PDR was produced and approved by the local Government in place of the FSR for the project. The PDR contains the project design details but it functions the same as the FSR for the project and that was the formal document applied for the Government approval of the project implementation.

The PDR was completed in November 2004 and there was more than a year of gap to the real action for the project activity started by signing the contract for the main plant equipment. The validation team assessed if there has been a change of input values and assumptions that have significant impact to the resultant IRR value, including the plant output, electricity tariff, investment cost, labour cost, interest rate, tax rate, and material cost. Economic situation of China during the time was steadily grown and the most cost items namely equipment and material cost, labour cost and interest rate were observed as being increased. Meanwhile no change was observed related to expected revenue of the project during the time. The validation team reviewed the contracts signed for equipment and material, construction work and bank loan and compared with the public indicators and confirmed that there was no material change on input values by the time of the investment decision.

The validation team also confirmed the IRR was correctly calculated following the means and input values indicated in the formal PDR.

CAR3

The PP is requested to address the following issues within the documentation of the investment analysis.

- The electricity sales revenue, extra VAT and CER revenue in year 2, 2008 are calculated as a half of annual revenue/cost but the starting date of the crediting period is 01/09/2008 and it should count one third of annual revenue/cost for year 2008.
- Meanwhile the balance two thirds of annual CER revenue should be counted in year 2015 but it is not counted.
- In the IRR calculation, CER revenue is only counted for 6.5 years (please see the above) even though it selected renewable crediting period and IRR is analysed for 22 years of project lifetime (including construction period).

The validation team received the revised PDD and IRR calculation spreadsheet. The input data for investment analysis was checked in PDD, IRR calculation spreadsheet and PDR and cross-checked with the contract agreements as available now. It was confirmed the project IRR has been calculated following the values of PDR that was used for investment decision by the PP and the CAR3 was closed.

Sensitivity analysis has been conducted on the main parameters that affect the result of IRR analysis, namely the total investment cost, annual O&M cost and the electricity tariff. With increase of the electricity tariff by 10%, decrease of total investment or annual O&M cost by 10%, the project IRR is still below the 10% benchmark (the highest case is 9.26%). The increase of electricity tariff and decrease of investment cost by 10% is unlikely because the electricity sale tariff has been fixed for the project and the contracts for procurement of main equipments and construction work have been signed. The annual O&M cost is estimated based on labour salary and repair fee and decreases in the cost is not anticipated due to inflation in the Chinese economy. Increase of annual electricity generation will have the same effect as the increase of electricity tariff but the estimated annual electricity generation is based on the past 32 years' historical hydrology data and a significant increase is not expected in a sustainable manner. The validation team reviewed the conditions of contracts and background information of the host country and confirmed that the result of sensitivity analysis consistently supports the conclusion that the project activity is not financially attractive.

The project activity started before the PDD was submitted to LRQA for validation and the serious consideration of CDM prior to the starting date was carefully assessed during the validation following the guidance of the CDM-EB.

The starting date of the project activity was indicated as 01/01/2007 but that was found as the date of commencement of the construction work. The validation team reviewed all the key project documents including the contract agreements, the government permits, the loan agreement, and others related with the project implementation and the consideration and preparation for CDM application.

For implementation of the project activity in China, completion of feasibility study report (FSR) or PDR to demonstrate project's viability and its approval by the Government are pre-requisite. In some cases, contracting and preparatory works

commence before formal Government's approval in order to demonstrate the readiness. The PDR for the project was completed in November 2004 but the formal approval from the host country Government for the project was only released in December 2006 after the contracts for equipment purchase and the construction work were signed and the environmental impacts assessment was approved, then the construction work could start from the beginning of year 2007.

Finance is also a major issue with private investment. The project owner, Shichuan Jiarong Dayu Hydropower Development Co., Ltd., is formed by investment of 4 directors. The proportion of the project's finance was proposed at 30% by equity and 70% by loan. The project owner could sign the loan agreement with Agricultural Development Bank of China only on 28 September 2007 much later than the commencement of construction work.

Before firm agreement was signed for the bank loan, it can be said that the project could be suspended at any time due to shortage of funding. However, the validation team determined that the starting date of the project activity for the proposed project activity in line with the CDM definitions is 28 March 2006, that is the contract signed date for procurement of main power plant equipment as this is the first major commitment by the project owner to the investment for the project activity. The contract amount is greater for construction of dam and underground tunnel for this project but the contract date for this portion was later than the date for power plant equipment.

The PDR concluded that the project's financial IRR was lower than the benchmark and recommended application to CDM. The project owner, after obtained opinion of the project consultant related to the expected benefit of CDM to the project, decided to implement the project as a CDM project activity at the board of director's meeting held on 16 January 2005. The opinion of the consultant given to the project owner on 13 January 2005, after reviewed the PDR of the project activity, advised that the project activity would meet the CDM requirements and produce about RMB2.3mil. of annual CDM related revenue. As evidenced in the minutes of board of director's meeting, CDM was considered as the single hope for the project activity to be financially viable exceeding the industrial benchmark. Authenticity of the evidences were assessed being cross checked with the timeline of project development, other formal documents of the project owner, official documents of the third parties including the Government offices, the project consultant and the CER purchaser and it was confirmed that all the evidences were consistent with each others. The subsequent Government approval and loan agreement that were key factors for implementation of the project activity both depend on the project's feasibility considering CDM benefit. The decision by the project owner made on development of the project with CDM of 16 January 2005 was before the starting date of the project activity of 28 March 2006 that was the date made the first main commitment to investment for the project activity. The necessity of CDM supports consistently remained as it was observed being considered in the Government permit and the loan agreement. Thus it was confirmed that the CDM benefit has been seriously considered by the PP since early stage of the project development.

The project owner signed the first agreement for CDM consultancy on 26 April 2006 immediately following the start of the project activity. While the consulting company started development of CDM project design, the project owner obtained the government approval for the environmental impact assessment and the project implementation, and started the construction. The first consultant could not complete the work and satisfy the project owner in the agreed timeline of 12 months. Then the project owner decided to hire another company and the second CDM consultancy agreement dated May 2007 was signed. The second consultancy company could successfully agree the term sheet with the CER purchaser on 7 September 2007. The contact with LRQA for validation of the project activity was initiated in October 2007 and the agreement was signed in November 2007. The validation team confirmed the continuous efforts to secure the CDM status by assessing the respective evidences and interviewing the parties concerned.

CL1

The starting date of the project activity was indicated as 01/01/2007 and it was explained as the starting date of the construction. The PP is requested to confirm the date of its decision making to invest the project activity to supplement the explanation of the project's additionality.

The PP subsequently provided the relevant evidences including the PDR recommended CDM application, correspondences with the CDM consultant, minutes of board of director's meeting decided to develop the project as a CDM project activity, the Government approvals, contract agreements and others related to demonstration of the relevant starting date of the project activity and the serious consideration of CDM prior to the starting date as detailed above for review and assessment by the validation team. CL1 was closed.

4.4 Emission reductions

The baseline emission is calculated as the product of the baseline emission factor (EF_y in tCO₂e/MWh) and the electricity supplied by the project activity to the Grid (EG_y in MWh).

$$BE_y = EF_y \times EG_y$$

The PP has chosen ex-ante determination of the emission factor EF_y calculated as a combined margin emission factor consisting of the operating margin (EF_{OM,y}) and the build margin (EF_{BM,y}).

Following the method of the ACM0002 Version 06 referenced in AMS-I.D. Version 12, the simple OM is selected for ex-ante determination of OM emission factor based on data of full generation-weighted average for the most recent 3 years. According to the China Electric Power Yearbook 2002-2006 (for data of years 2001 to 2005), the thermal power generation sources constitute more than 60% of the total electricity generation of the CCG throughout the five most recent years and the simple OM method can be used.

In China, sufficient data for the simple adjusted OM and dispatch data analysis methods is not publicly available, and the average OM method can not be applied because the low cost/must run source is less than 50% of total grid generation in

the CCG. Thus it was confirmed that the use of Simple OM method is relevant for the project activity.

The OM emission factor is calculated following the guidance of the Chinese DNA using the publicly available data from official sources for year 2003, 2004 and 2005 that are the most recent 3 years for which data was available at the time of the PDD submission and the IPCC defaults are also used as appropriate. The validation team reviewed the calculation and the supporting documents and validated the OM emission factor;
 $EF_{OM,y} = 1.2909 \text{ tCO}_2/\text{MWh}$.

The PP has chosen ex-ante option for the BM emission factor.

In China, plant or unit specific fuel consumption and electricity generation data as required in the equation for BM emission factor of ACM0002 Version 06 are not publicly available. The CDM-EB has accepted the alternative method to determine BM emission factor in a conservative manner for Chinese projects and the PP also followed the method. The determination method is detailed in the Notification on Determining Baseline Emission Factor of China's Grid.

The sample group 'm' was identified as capacity addition during the last 3 years for different power generation technologies and the CO₂ emissions by using of the best available efficient technology for the conservative estimation of the emission factor following the guidance issued by the Chinese DNA. The validation team reviewed the calculation and the supporting documents and validated the BM emission factor;
 $EF_{BM,y} = 0.6593 \text{ tCO}_2/\text{MWh}$.

The values presented in the official grid emission factor published by China DNA is 1.2899 tCO₂/MWh for OM and 0.6592 tCO₂/MWh for BM and the ones adopted for this project is 0.078% and 0.015% higher respectively. The validation team reviewed the referenced documents and interviewed the PP and confirmed that the difference is due to use of emission factor for coke and refinery gas in accordance with the IPCC default values. It is not possible for general readers to assess the published grid emission factor in every details based on the published information but the document clearly mentions the emission factor for fuels is taken from IPCC 2006 Guidelines and it is considered as a good practice for project developer to check correctness of the published document in using as long as it is possible and the use of data with the kind of correction is considered appropriate for better accuracy. The detailed calculation is presented in PDD Annex 3.

The baseline emission factor is calculated as the weighted average of the OM emission factor and BM emission factor as; $EF_y = W_{OM} \times EF_{OM,y} + W_{BM} \times EF_{BM,y}$

As per ACM0002 Version 06, the default weights are $W_{OM} = W_{BM} = 0.5$ for the hydropower project. Thus the baseline emission factor is determined as; $EF_y = 0.9751 \text{ tCO}_2/\text{MWh}$

The project activity is a hydropower generation project and no project emission is expected. It was confirmed through the field visit that no on-site fossil fuel based generating unit is employed by the project. The project employs 2 hydropower generating units that can operate independently during maintenance and unplanned outage period, and there is provision of electricity import from the grid when both units do not operate. Therefore,
 $PE_y = 0$

The methodology requires leakage consideration if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. The project activity uses new hydro power generation equipment at the newly established powerhouse. Although the power plant was not completed when the team visited the project site but use of newly produced equipment at the stage could be confirmed on the contract agreement. Therefore no leakage emission needs to be considered.

$Ly = 0$

Emission reductions by the project activity are calculated;
 $ER_y = BE_y - PE_y - Ly$

Since both PE_y and Ly are zero,
 $ER_y = BE_y = EG_y \times EF_y$

With the estimated annual average electricity generation, the emission reductions are estimated ex-ante as;

$ER_y = 34,998.7 \text{ MWh} \times 0.9751 \text{ tCO}_2\text{e/MWh} = 34,127 \text{ tCO}_2\text{e}$

This emission calculation is confirmed by validation team.

CAR4

Some minor discrepancies exist in description of grid emission factor calculation referring to the Notification on Determining Baseline Emission Factor of China's Grid. The PP should confirm the following points.

- Total electricity generation in 2000-2005 is mentioned for justification of using Simple OM method in PDD B.6.1 and table 1 of annex 3. But it is not consistent with source (China Electrical Power Yearbook 2002-2006).
- China Energy Statistical Yearbook 2002-2006 is stated as the data source for $F_{i,j,y}$ in PDD B.6.2. but it should be 2004-2006 to present data for years 2003, 2004 and 2005. Indication in page 11 of the PDD as 2002-2005 should be also corrected for consistency.
- China Electric Power Yearbook 2002-2006 is stated as the data source for installed capacity in PDD B.6.2 but it should be year 2003-2006.
- Table 4 and Table 5 of Annex 3 used different data for coke consumption but those are based on the same data source. Four province names in table 5 are wrong order against the data source.
- Table 9 of PDD Annex 3 indicates wrong years. Years 2000/2001/2004 should be 2002/2003/2005 respectively and 2000-2004 new capacity additions should be 2002-2005 new capacity additions.

Later the validation team received the revised PDD. The requested correction was reflected in a relevant manner as detailed in the attached Validation Findings Log and CAR4 was closed.

4.5 Monitoring methodology and monitoring plan

Because project emission and leakage are zero and combined emission factor has chosen ex-ante option, only following parameters are to be monitored:

- Electricity supply to the CCG
- Electricity import from the CCG

Both measurements above are made with electricity meters in compliance with the national guidelines and requirements of the grid company for accuracy and reliability.

The monitoring plan has been taken into account.

- The organization structure for monitoring and management
- The installation of monitoring devices
- The periodical calibration and maintenance
- The retention requirement for the data record of electronic media and paper
- The QA/QC procedures including data check and operation function analysis

CL2

The 2nd item of data and parameters monitored in PDD B.7.1 is titled as "Achieved Electricity" and the description is Electricity achieved by the project from the grid. This parameter is representing electricity import from the grid and should use general term.

The "Achieved Electricity" has been replaced by "EG_{grid to pj.y}" in PDD (version 04) . The issue was closed.

4.6 Duration of the project activity / crediting period

The project activity started from 28/03/2006 and the operational lifetime is expected for 20 years. The PP selected the 7 years (renewable) crediting period.

The starting date is the date of the contract agreement for purchasing of the main equipment signed as detailed in section 4.3 above.

The starting date of crediting period is indicated in the PDD on 01/10/2008 or actual registration date as a CDM project activity.

4.7 Environmental impacts

The environmental impact assessment (EIA) report of the project has been approved by Aba Tibet and Qiang Autonomous Prefecture environmental protection administration. The main analysis for the project is as summarized below.

- Air: The project is zero emission with run-of-river hydro source.



- Water: The wastewater from the project construction is collected, deposited and treated. The treated water is to be re-used at the construction site.
- Soil: Solid waste is disposed in managed landfills. No significant impact is found for soil erosion during construction period.
- Noise: Noise is produced from construction work and associated materials transportation. Noise prevention measures are taken by the project participant. There will be less noise from generator operation and no resident has been found living near the generation plant.
- Ecosystem: The analysis identified no rare and endangered species in the project area (according to the document testifier of local afforestation authority).

The proposed project is located in an area having large environment capacity for and few people is living and doing activity. The project constructs 8.8m height dam, 1,807 meters long underground tunnel and some road construction takes place but the area is wasted hill land with no cultivated land included and no large deforestation is being caused. The environmental impacts of the project activity are not considered as significant and will be minimized by the protection measures proposed by the project participant. The project participant also implements afforestation of temporarily occupied areas after completion of the construction work.

The environmental impacts assessment report and the related Government's documents were reviewed, the construction site was observed and the Government's officials were interviewed during the field visit. The validation team confirmed that the project activity satisfied requirements of the environmental regulations of the host country as it was confirmed during the validation process and no issue was raised for this section.

4.8 Stakeholders' comments

The comments by local stakeholders are to be invited in an open and transparent manner. The project participant invited the comments from local stakeholders by publishing the opinion invitation announcement on the village's billboards and by distribution of questionnaires.

The public announcement was made in November 2006 at billboard of nearby Dapa village and Dazang county government's building and kept for a month to allow public stakeholders to contact for comments. The notice content included explanations of project brief, potential impacts to local environment, modalities of communication if there were local stakeholder's comments. No comment was presented to the announcement during the period.

The opinion survey to the local stakeholders was carried out also in 2006. 50 questionnaires were distributed to and collected from the various local stakeholders identified by the PP and the PP analyzed the questionnaires collected after filled.

The validation team reviewed the process and records of the public notice, opinion survey and local stakeholder's comments. The stakeholders consulted

included the officials of local government and residents of the nearby villages. The respondents of local government and most residents were supportive to the proposed project and no negative opinion was observed. The main concern of the local stakeholders was the project's impact to the water resource and public hygiene. The PP explained that the project does not affect the drinking water and the other water use of the local residents as the ground water and tributary water is used in the area. The water quality and flow are controlled to meet the regulatory requirements of the host country.

The validation team conducted direct interviews to the Government officials and local residents during the field visit and confirmed that the processes taken by the PP were open and the actions were appropriate. CL3 was issued as detailed below and closed after relevant actions by the PP.

CL3

Total 50 questionnaires had been distributed and collected. 4 persons made no comments (did not indicate whether agrees or disagrees). 5 persons responded that they did not agree with the project construction. Others (more than 80%) were positive for construction of project. But the description in PDD E.2 and E.3. says that 100% respondent supported the project, was not consistent with survey results in questionnaires.

The PP contacted as a follow-up action the persons who did not fill-in the questionnaires related to the project construction and asked them to fill the questionnaires not previously answered. The PP also contacted the persons who responded that they disagree with the project construction for the reasons. The PP confirmed through the contact that the answers to the query left blank and answers presented as opposite to the project construction were made because of careless mistake for all the cases and there was no real opposition was heard. In order to fill the gap of understanding, the PP conducted further explanation of the project activity when collected the questionnaires from those persons. The validation team reviewed the records of the follow-up action taken by the PP and confirmed relevance of the action through the interview. CL3 was closed.

5 Comments by parties, stakeholders and NGOs

In accordance with the requirement of paragraph 23 of the SSC M&P, the PDD is to be made publicly available for 30 days subject to confidentiality provisions agreed with the PP and receive comments from Parties, stakeholders and UNFCCC accredited NGOs on the validation and registration requirements.

The PDD Version 01 was made publicly available in accordance with the requirements of the procedure for the period of 12/12/2007 to 09/01/2008 as per <http://cdm.unfccc.int/Projects/Validation/DB/Z11ZH3AMF317ZFOBF9UGS8LAL8S9SD/view.html>. No comment was received during this period.

6 Validation Opinion

LRQA has undertaken the validation of the proposed project activity "Sichuan Cong'en 8MW Hydropower Project" based on the requirements of CDM as set out in the Article 12 of the Kyoto Protocol, the CDM M&P and SSC M&P, the present annex, subsequent decisions made by the COP/MOP and CDM-EB, and the other rules applicable to the proposed project activity including the host country's legislation and its specific requirements for sustainable development.

Through the process of the validation, the validation team identified 4 CARs and 3 CLs. The PP has taken actions and submitted to LRQA the revised PDD Version 04 dated 21/07/2008 and the other supporting evidences.

The validation team is of the opinion that the proposed project activity meets all the relevant UNFCCC requirements for the CDM as well as the host country's national requirements, and if implemented as designed is likely to achieve the emission reductions and contribute to the sustainable development of the host country. Therefore LRQA requests the registration of "Sichuan Cong'en 8MW Hydropower Project" to the CDM Executive Board as a CDM project activity.

7 Appendices

7.1 Appendix A: Letter of approval for the project by the host and investing country DNA

Letter from China DNA for host country approval to the project activity dated March 2008

Letter from DNA of Japan (Annex-I Party) for approval of the project activity dated 10 June 2008

7.2 Appendix B: List of documents reviewed

Category A documents (documents from the PP)

- 1) PDD version 01 date 06/12/2007
- 2) PDD version 03 dated 01/04/2008
- 3) PDD version 04 Dated 21/07/2008
- 4) Preliminary Design Report dated November 2004
- 5) Loan agreement between Sichuan Jiarong Dayu Hydropower Co., Ltd. and Agricultural Development Bank of China, dated 28/09/2007
- 6) Acknowledgement of application for loan to the project by Agricultural Development Bank of China dated 26/06/2007
- 7) The electricity purchasing agreement between Barkam Electricity Power Co., Ltd. and Dayu hydropower Co., Ltd. dated November 2004
- 8) Public Notice of CDM project for Cong'en hydropower project, November 2006
- 9) Questionnaire of local stakeholder comments (50 pieces)
- 10) Memorandum of Understanding of Hydropower CDM project between Buyer and Owner, dated 2/11/2007
- 11) Document Approval issued by Aba prefecture DRC for Barkam Cong'en Hydropower project, dated 19/12/2006
- 12) The document Approval issued by Aba prefecture Environmental Protection Bureau, dated 16/10/2006
- 13) The document approval issued by Aba prefecture DRC and Irrigation Bureau, 05/12/2005
- 14) Document Approval issued by Aba prefecture Government for development licence of Chabao River, dated 14/01/2005
- 15) Document Approval issued by Aba prefecture Government for development licence of Chabao River, dated 12/05/2004
- 16) IRR spreadsheet 29/12/2007
- 17) IRR spreadsheet 28/04/2008
- 18) Board meeting minute of Sichuan Dayu Hydropower Development Co., Ltd. for CDM decision, 16/01/2005
- 19) Board meeting minutes of Sichuan Dayu Hydropower Development Co., Ltd. for various issues
- 20) Training plan for employee before the operation in Cong'en hydropower



- 21) Environmental Impact Assessment report of Aba Barkam Cong'en Hydropower, July 2006
- 22) LoA of China dated March 2008
- 23) LoA of Japan dated 10 June 2008
- 24) Follow up questionnaires dated May 2008
- 25) Hydropower construction contract for Sichuan Cong'en Hydropower between Sichuan Jiarong Dayu Hydropower Development Co., Ltd. and Sichuan Xinkang Road&Bridge Construction Engineering Co. Ltd. date 28/05/2006
- 26) Hydropower (4MW *2 sets) purchasing agreement between Sichuan Jiarong Hydropower development Co. Ltd. and Chongqing Yunhe Hydropower equipment Co., Ltd dated 28/03/2006.
- 27) Revision to the Hydropower (4MW *2 sets) purchasing agreement between Sichuan Jiarong Hydropower development Co. Ltd. and Chongqing Yunhe Hydropower equipment Co., Ltd dated 28/01/2007.
- 28) Correspondences between the project owner and China Power Complete Equipment Co., Ltd. for CDM consultation including the opinion of the consultant dated 13 January 2005
- 29) Constitution of Sichuan Jiarong Dayu Hydropower Co., Ltd.
- 30) CDM consultancy agreement with Beijing Huadian Complete Equipment Co. Ltd. signed on 26 April 2006
- 31) CDM consultancy agreement with China Power Complete Equipment Co. Ltd. dated May 2007
- 32) Term sheet with the CER buyer signed on 7 September 2007

Category B documents (other documents referenced)

- 1) AMS-I.D. "Grid connected renewable electricity generation". (version 12)
- 2) Attachment A (information on additionality) to Appendix B of the simplified modalities and procedures for small-scale CDM project activities
- 3) ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 06)
- 4) Guidelines for completing the simplified project design document (CDM-SSC-PDD) and the form for proposed new small scale methodologies (CDM-SSC-NM)
- 5) Tool for demonstration and assessment of additionality (Version 04)
- 6) Notice on Strictly Prohibiting the Installation of Fuel-fired Generators with Capacity of 135MW or below issued by General Office of the State Council Decree No. 2002-6
- 7) Interim Rules on the Installation and Management of Small-scale Fuel-fired Generators issued in August 1997
- 8) Request for clarification on use of approved methodology AM0005 for several projects in China:
- 9) 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- 10) Notification on Determining Baseline Emission Factor of China's Grid issued on 9 August 2007
- 11) OM calculation in year 2005 issued by China DNA on 9 August 2007
- 12) BM calculation in year 2005 issued by China DNA on 9 August 2007
- 13) China Energy Statistical Yearbook



- 14) China Electric Power Yearbook
- 15) Economic Evaluation Code for Small Hydropower Projects (SL16-95), March 2006
- 16) China Statistical Yearbook 2007
- 17) Guidance on the Assessment of Investment Analysis (Version 02)
- 18) Guidance on the demonstration and assessment of prior consideration of the CDM
- 19) Economic Evaluation Code for Small Hydropower Projects SL16-95, 2 June 1995
- 20) Bulletin of the Ministry of Water Resources on valid technical standards for hydro energy projects [2002]07, 18 June 2002
- 21) Bulletin of the Ministry of Water Resources on valid technical standards for hydro energy projects [2006]05, 9 September 2006
- 22) Similar CDM project cases requested for registration by the CDM-EB

7.3 Appendix C: List of persons interviewed

Barkam county Development and Reform Committee, (DRC)

- 1) Mr. Wenhua Tian, Vice Director of DRC.
- 2) Ms. Jingjing Xu, director of investment department of DRC.

Barkam County Environmental Protection Bureau (EPB)

- 1) Mr. Shuhui Dai, Director of EPB
- 2) Mr. Jiajie Dong, Vice Director of EPB

Barkam Electricity Power Company Limited (BEPC)

- 1) Mr. Ni Ma, Director of BEPC

Sichuan Jiarong Dayu Hydropower Development Co., Ltd (SJSHD)

- 1) Mr. Benlin Yang, Director of SJSHD
- 2) Mr. Naming Cao, Director of general office of SJSHD
- 3) Mr. He Er Jia , employee of SJSHD

CDM Development Centre of China Power Complete Equipment Co., Ltd. (CPCEC)

- 1) Ms. Qisha Wen, original Project Manager
- 2) Mr. Yusen Yang , Engineer of CPCEC
- 3) Mr. Shudong Han, Project Manger.
- 4) Mr. Yu Zhang, Project manager of Consultation department of Sichuan Branch of CPCEC.

Village in Dapa, Dazang, BarKam, Aba, Sichuan

- 1) Ms. Er Ma Chu, Local villager
- 2) Mr. San Lang Luo Er Wu, Local villager
- 3) Ms. Er Ma Qiu, Local villager

7.4 Appendix D: How due account has been taken to the public input made to the validation requirements

The PDD Version 01 was made publicly available in accordance with the requirements of the procedure for the period of 12/12/2007 to 09/01/2008 as per <http://cdm.unfccc.int/Projects/Validation/DB/ZI1ZH3AMF317ZFOB9UGS8LAL8S9SD/view.html>. No comment was received during the period.

7.5 Appendix E: Certificate of Appointment

Attached to this report.

7.6 Appendix F: Validation findings log

Attached to this report.



Date: 6 August 2008

To whom it may concern,

Certificate of Appointment

Subject: Validation of "Sichuan Cong'en 8MW Hydropower Project"

We hereby certify that the following personnel have engaged in the validation process that has fully satisfied the competence requirements of the validation of the CDM project activity.

<u>Name of Person</u>		<u>Assigned roles</u>
Mr. Michiaki Chiba	LRQA Ltd. GHG Unit	Team Leader, CDM Validator
Mr. Zhiyong Wang	LRQA China	Team Member, CDM Validator
Mr. Prabodha C. Acharya	LRQA India	Team Member, CDM Validator, Sector Expert
Mr. Ketan S. Deshmukh	LRQA India	Technical Reviewer, CDM Validator, Sector Expert
Dr. Anne-Marie Warris	LRQA Ltd. GHG Unit	Final Reviewer/Decision Maker

Decision Maker

Dr. Anne-Marie Warris
Global Greenhouse Gas Technical Manager

CDM Validation Findings Log “Sichuan Cong’en 8MW Hydropower Project” Version 03 – 05/08/2008

Grade 1	Status 2	Finding 3	Corrective action review 4	Process / aspect 5	Date 6	Reference 7	Clause 8
CAR	Closed	The LoA issued from China and Japan’s DNA have not been presented to LRQA.	The validation team received LoAs issued by China and Japan’s DNA, and confirmed below: 1) China LoA was issued by China DNA in March 2008. The voluntary participation and contribution in achieving sustainable development of the host country were confirmed. 2) Japan LoA was issued by Japan DNA on 10 June 2008. The voluntary participation for the project was confirmed.	Written approval by Parties/ PDD A.3	25 Feb 08	CAR1	Para 23 (a) of SSC M&P
CAR	Closed	Summary information of the national policies and circumstances relevant to the baseline of the proposed project activity is not provided in the PDD (ver01).	The information about national policies and circumstances is summarized in section B.4. of PDD version 04 with relevant reference to the related host country requirements. The validation team reviewed the information for determination of the baseline as detailed in the report.	Baseline / PDD B.5.	25 Feb 08	CAR2	Guidelines for completing SSC-PDD

Grade 1	Status 2	Finding 3	Corrective action review 4	Process / aspect 5	Date 6	Reference 7	Clause 8
CAR	Closed	<p>The PP is requested to address the following issues with the documentation of the investment analysis.</p> <ul style="list-style-type: none"> ○ The electricity sales revenue, extra VAT and CER revenue in year 2, 2008 are calculated as a half of annual revenue/cost but the starting date of the crediting period is 01/09/2008 and it should count one third of annual revenue/cost for year 2008. ○ Meanwhile the balance two thirds of annual CER revenue should be counted in year 2015 but it is not counted. ○ In the IRR calculation, CER revenue is only counted for 6.5 years (please see the above) even though it selected renewable crediting period and IRR is analysed for 22 years of project lifetime (including construction period). The PP should explain the reason if it is not a mis-take. 	<p>The PP submitted the revised documentation including the following corrections:</p> <ul style="list-style-type: none"> ○ The electricity sales revenue, VAT and CER revenue in year 2008 was corrected. ○ The CER revenue is considered in year 2015. ○ The CER revenue is counted for full 7 years of the first crediting period in the revised calculation. 	Additionality / PDD B.5.	25 Feb 08	CAR3	Para 28 of SSC M&P

Grade 1	Status 2	Finding 3	Corrective action review 4	Process / aspect 5	Date 6	Reference 7	Clause 8
CAR	Closed	<p>Some minor discrepancies exist in description of grid emission factor calculation referring to the Notification on Determining Baseline Emission Factor of China's Grid. The PP should confirm the following points.</p> <ul style="list-style-type: none"> Total electricity generation in 2000-2005 is mentioned for justification of using Simple OM method in PDD B.6.1. But it is not consistent with source (China Electrical Power Yearbook 2002-2006). China Energy Statistical Yearbook 2002-2006 is stated as the data source for $F_{i,j,y}$ in PDD B.6.2, but it should be 2004-2006 to present data for years 2003, 2004 and 2005. Indication in page 11 of the PDD as 2002-2005 should be also corrected for consistency. China Electric Power Yearbook 2002-2006 is stated as the data source for installed capacity in PDD B.6.2 but it should be year 2003-2006. Table 4 and Table 5 of Annex 3 used different data for coke consumption but those are based on the same data source. Four province names in table 5 are wrong order against the data source. Table 9 of PDD Annex 3 indicates wrong years. Years 2000/2001/2004 should be 2002/2003/2005 respectively and 2000-2004 new capacity additions should be 2002-2005 new capacity additions. 	<p>The validation team confirms below:</p> <ul style="list-style-type: none"> 2002-2006 is appeared in B.6.1. of PDD (version 04). The description of data sources about $F_{i,j,y}$ is found to be corrected in PDD (version 04). Now it is consistent with data year. Year 2003-2006 is found in B.6.2 of PDD (version 04). The year description in installed capacity has been corrected accordingly. The coke data (NCV and EF) is corrected in table 4 and 5 of annex 3. The wrong order of province name has been corrected in updated PDD. The table 9 of updated PDD annex 3 has been found right date and year description. 	Baseline emissions / PDD B.6 and annex 3.	25 Feb 08	CAR4	Para 28 of SSC M&P

Grade 1	Status 2	Finding 3	Corrective action review 4	Process / aspect 5	Date 6	Reference 7	Clause 8
CL	Closed	The starting date of the project activity is indicated as 01/01/2007 and it is explained as the starting date of the construction. The PP is requested to confirm the date of its decision making to invest the project activity to supplement the explanation of the project's additionality.	<p>The validation team received the evidences and evaluated including below:</p> <ol style="list-style-type: none"> 1) Recommendation of CDM application as conclusion of PDR dated November 2004 2) Correspondences between the project owner and the CDM consultant 3) Minutes of board of director's meeting decided to develop the project as a CDM project activity on 16/01/2005 by 4) Minutes of board of director's meetings for various issues (for cross check). 5) Contract for procurement of the power plant equipment (turbine and generator) signed on 28/03/2006. 6) Contract for construction work signed on 28/05/2006 7) Approval of the local Government for implementation of the project activity dated 19/12/2006 8) Loan agreement dated 28/09/2007 <p>The validation team carefully assessed the presented evidences and determined the relevant starting date of the project activity as detailed in the report.</p>	The starting date of the project activity (additionality) / PDD C.1.1.	25 Feb 08	CL1	Para 26 of SSC M&P
CL	Closed	The 2- item of data and parameters monitored in PDD B.7.1 is titled as "Achieved Electricity" and the description is Electricity achieved by the project from the grid. This parameter is representing electricity import from the grid and should use general term.	The "Achieved Electricity" has been replaced by "EGgrid to pj,y" in PDD (version 04).	Monitoring plan / PDD B.7.1	25 Feb 08	CL2	-

Grade 1	Status 2	Finding 3	Corrective action review 4	Process / aspect 5	Date 6	Reference 7	Clause 8
CL	Closed	Total 50 questionnaires had been distributed and collected. 4 persons made no comments (did not indicate whether agrees or disagrees). 5 persons responded that they did not agree with the project construction. Others (more than 80%) were positive for construction of project. But the description in PDD E.2 and E.3. says that 100% respondent supported the project, was not consistent with survey results in questionnaires.	As a follow-up action, the PP contacted the persons who did not fill-in the questionnaires related to the project construction and asked them to fill the questionnaires not previously answered. The PP also contacted the persons who responded that they disagree with the project construction for the reasons. The PP confirmed through the contact that the answers to the query left blank and answers presented as opposite to the project construction were made because of careless mistake for all the cases and no real opposition was heard. In order to fill the gap of understanding, the PP conducted further explanation of the project activity when collected the questionnaires from those persons. The validation team reviewed the records of the follow-up action taken by the PP and confirmed relevance of the action through the interview.	Stakeholders comments/ PDD E.2	8 March 08	CL3	Para 22(b) of SSC M&P