

VERIFICATION REPORT OF GROUPED HYDROPOWER PLANTS IN CHONGQING, YUNNAN, SICHUAN AND GUIZHOU PROVINCES, P.R.CHINA



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Summary:

The verification team assigned by the VVB (TÜV Rheinland (China) Ltd.) has performed the verification of the VCS Project “Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China” on the basis of VCS 3.2 as well as criteria given to provide for consistent project operations, monitoring and reporting. The verification team concludes that the project as described in the VCS Monitoring Report (version 2.2, 19/06/2012) meets all relevant requirements of the above-defined criteria. The VVB therefore issue a positive verification opinion to the project.

The Grouped Project involves the installation and operation of 95 run-of-river hydropower plants in Chongqing, Sichuan, Guizhou and Yunnan Provinces, People’s Republic of China. The Grouped Project is expected to export annual electricity of 470,996 MWh and 356,851 MWh to the Central China Power Grid (CCPG) and Southern China Power Grid (SCPG) respectively utilizing renewable hydro resources. The project activity achieves greenhouse gas (GHG) emissions reductions by displacing electricity from existing fossil fuel based power plants and likely capacity additions within the given grid.

The verification has been executed in the following steps so far:

- Desk review of preliminary VCS monitoring report, Version 01, 15/04/2011
- Registered VCS PD (13/10/2009), validation report by TÜV Rheinland Japan Ltd. (Version 03 of 05/11/2009), applied baseline methodology of AMS-I.D. Version 13
- On-site visit with stakeholder interviews (16/10/2011 to 22/10/2011 in Yunnan Province, 27/12/2011 to 30/12/2011 in Sichuan Province and 09/01/2012 to 12/01/2012 in Chongqing City)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft verification report & protocol
- Desk review of revised VCS monitoring report (version 2.2 of 19/06/2012)
- Review of proposed corrections and clarifications
- Issue of the final verification report & protocol

Based on the assessment carried out, the verifier confirms that the project has been completely implemented and operated in accordance with the description given in the monitoring plan and the applied methodologies.

After closing out the CARs and CLs, the verification team confirms that the installed equipment runs reliably and the meters are calibrated appropriately. The GHG emission reductions are calculated without material misstatements. It is verification team’s opinion refers to the project’s GHG emissions and resulting GHG emission reductions reported, both determined due to the valid and verified project’s baseline, its monitoring plan and its associated documents.

Based on the information seen and evaluated the verification team confirm that the implementation of the Project resulted in 1,079,923 tCO₂e of emission reductions during the verification period 14/06/2009 to 25/06/2011.

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1 INTRODUCTION

1.1 Objective

The South Pole Carbon Asset Management Ltd. has commissioned TÜV Rheinland (China) Ltd. to verify the emission reductions of its voluntary emission reduction (VER) project, Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China (hereafter called “the project”), located in Chongqing, Sichuan, Guizhou and Yunnan Provinces, People's Republic of China for the second monitoring period from 14/06/2009 to 25/06/2011 following the first monitoring period from 01/04/2006 to 05/06/2009. TÜV Rheinland (China) Ltd. is the verification body of the project has been accredited as a VVB by VCS Association and also meets the competence requirements as set out in ISO 14065:2007. This report describes the verification process and the findings of the verification performed on the basis of Voluntary Carbon Standard Version 3.2 as well as criteria to provide for consistent project operations, monitoring and reporting.

1.2 Scope and Criteria

The verification comprises an independent and objective review of the monitoring report over the monitoring period from 14/06/2009 to 25/06/2011 based on the registered VCS PD in part of the project design, monitoring parameters, monitoring plan, emission reduction calculation, monitoring methodology and all related evidences provided by project participant. Those documents have been reviewed and verified against VCS Version 3.2 requirements and associated interpretations. On-site visit and stakeholders interviews are also performed as part of the verification process.

1.3 Level of assurance

The validation and verification of the project is assured reasonable by the verification team on the basis of documentation review, on-site assessment & interview and background investigation on the internet.

1.4 Summary Description of the Project

The Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China is a grouped project under VCS 3.2, which consists of 95 run-of-river hydropower stations in less-developed rural areas of south-western China. There are four sub-groups (i.e. 9 projects are located in Yunnan Province, 67 in Chongqing City, 13 in Sichuan Province and 6 in Guizhou Province), which are determined by the geographical boundary.

The electricity generated from the Grouped Project will be supplied to Central China Power Grid (CCPG) and Southern China Power Grid (SCPG), where geographic and system boundaries can be clearly identified and information on the grid and calculation of baseline emissions is published and public available according to *China DNA's Guidance on China Grid Baseline Emission Factors* dated on 18th July 2008.

The CCPG and SCPG are both dominated by thermal power plants as per the *China Electrical Power Yearbook 2003~2007*. By exporting annual electricity of 470,996 MWh and 356,851 MWh to the CCPG and SCPG respectively, the project activity achieves greenhouse gas (GHG) emissions reductions by displacing electricity from fossil fuel based power plants connected to the grid.

According to the VCS website, the project has been registered as a VCS project (VCS Registration No. 438) on 08/06/2010 and the first verification has been finalized for the monitoring period from 01/04/2006 to 05/06/2009.

2 VALIDATION PROCESS, FINDINGS AND CONCLUSION

2.1 Validation Process

The validation process is based on the approach of VCS 2007.1. The purpose of the validation is to provide an independent third party assessment of the project design. More specifically, the project's baseline data, monitoring plan, and the project's compliance with relevant VCS criteria are validated to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all VCS projects and is necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified Voluntary Carbon Unit (VCU).

The validation scope is defined as an independent and objective review of the VCS project description (PD). The VCS PD is reviewed against the relevant criteria as stated in VCS 2007.1, including the approved baseline and monitoring methodology. The validation team has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach. The approach requires validation focus on the identification of significant risks for project implementation and the generation of VCU. 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.

From 14/06/2009 to 24/06/2009 and 05/07/2009 to 17/07/2009, TÜV Rheinland performed a physical site inspection and face to face interviews with project stakeholders to confirm relevant information and to resolve issues identified in the first document review.

The validation team consists of the following personnel:

Role	Full name	Appointed for Sectoral Scopes	Affiliation
Team leader	Mr. MA Libo	1.1, 1.2, 4.5	TÜV Rheinland (China) Ltd.
Team Member	Mr. ZHU Jiang	1.1, 1.2, 4.5	TÜV Rheinland (China) Ltd.
Technical Reviewer	Dr. Manfred Brinkmann	1, 3, 4, 5, 6, 10, 11, 12, 13	TÜV Rheinland Japan Ltd.

The project has been validated by TÜV Rheinland Japan Ltd. (Report No. 01 996 9105053287 Version 03, issued on 05/11/2009) and was registered on 08/06/2010 as a VCS project activity under reference number 438. The proposed project is a grouped project. The VCS project activity was correct applied the CDM approved methodologies AMS-I.D., Version 13. The validation opinion made by TÜV Rheinland is that the Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China as described in the registered VCS PD of 13/10/2009) meets all relevant VCS 2007.1 requirements and correctly applies the methodologies AMS-I.D. Version 13.

2.2 Validation Findings

2.2.1 Gap Validation

Not applicable since this grouped project has been registered as VCS project.

2.2.2 Methodology Deviations

Not applicable.

2.2.3 New Project Activity Instances

Not applicable.

2.3 Validation Conclusion

The validation team of TÜV Rheinland Japan Ltd. (TÜV Rheinland) has performed a validation of the “Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China” on the basis of Voluntary Carbon Standard (VCS) 2007.1 as well as criteria given to provide for consistent project operations, monitoring and reporting. The validation report and the validation protocol are summarizing the findings of the validation.

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

The Validation was executed in the following steps so far:

- Desk review of preliminary VCS PD (Version 01, 10th June 2009)
- On-site visit with stakeholder interviews (14th to 24th June, 2009 and 5th July to 17th July 2009)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report & protocol

The project applies approved baseline and monitoring methodology AMS-I.D. Grid connected renewable electricity generation (Version 13), which is approved CDM methodology.

And also the project applies the tools as follows:

- Tool to calculate the emission factor for an electricity system (Version 01.1)

The total emission reductions from the project are estimated to be on the average 769,396 tCO₂e per year over the first 10-year 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 procedures have been implemented according to the monitoring methodology AMS-I.D. Version 13.

The project proponent has resolved all Corrective Action Requests and Clarification Requests as stated in the Validation Report and the Validation Protocol, which has resulted in a revision of the PD. In summary, it is validation team’s opinion that the Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China, as described in the VCS PD of October 13th, 2009, meets all relevant criteria as stated in VCS 2007.1 and correctly applies the baseline and monitoring methodology AMS-I.D (version 13). TÜV Rheinland thus requests the registration of the Project as a VCS Project.

3 VERIFICATION PROCESS

3.1 Method and Criteria

The verification consists of the following three phases:

1. Desk review of the monitoring plan, monitoring report, project design document and other relevant documents;
2. On-site visit (including follow-up interviews with project stakeholders, when deemed necessary);
3. Resolution of outstanding issues and the issuance of the final Verification report and Certification statement.

The criteria of this verification include the relevant rules and steps as set out in the VCS Version 3.2.

3.2 Document Review

The following table outlines the documentation reviewed during the verification:

Ref no.	Reference Document
/1/	South Pole Carbon Asset Management Ltd., VCS Monitoring report, version 01 Of 15 April 2011.
/2/	South Pole Carbon Asset Management Ltd., VCS Monitoring report, version 2.2 of 19 June 2012 (Final version).
/3/	South Pole Carbon Asset Management Ltd., VER calculation spreadsheet, 15 April 2011 and 22 May 2012.
/4/	South Pole Carbon Asset Management Ltd., Registered VCS PD of 13 October 2009.
/5/	TÜV Rheinland Japan Ltd., Registered Validation Report, Version 03 of 5 November 2009.
/6/	VCS Association, VCS Version 3.3 Requirements Document.
/7/	CDM Executive Board, Clean Development Mechanism Validation and Verification Manual, Version 01.2, Annex 1/EB55, 30 th July 2010.
/8/	CDM Executive Board, AMS-I.D. version 13, Grid connected renewable electricity generation.
/9/	VCS Association, Monitoring Report Template Form Version 3.2.
/10/	VCS Board, Voluntary Carbon Standard 2007.1, 18th November 2008.
/11/	International Organization for Standardization, ISO 14064-2:2006, ISO 14064-3:2006 and ISO 14065:2007 (ISO, www.iso.org).

/12/	CDM Executive Board, Attachment A to Appendix B of the Simplified Modalities and Procedures for Small-scale Project Activities Version 06, 30th September 2005.
/13/	CDM Executive Board, Tool to calculate the emission factor for an electricity system, version01.1, EB35, 19th October 2007.
/14/	IPCC: Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories Reference Manual. 2006.
/15/	China Electric Power Yearbook 2002~2007.
/16/	China Energy Statistical Yearbook 2004~2007.
/17/	Chinese DNA, 2008 Baseline Emission Factors for Regional Power Grids in China, 18th July 2008.
/18/	China National Economic Trading Commission, Technical Administrative Code of Electric Energy Metering, DL/T 448-2000, 3rd November 2000.
/19/	Ministry of Water Resources of People's Republic of China, Hydroenergy Design Code for Small Hydropower Projects (SL76-94).

As discussed in the registered validation report, the validation team has independently carried out a sampling approach for the Grouped Project according to the Sampling Guidance, Clause A.2.4.6.4². Based on the geographical distribution situation of the hydropower plants under the proposed VCS Grouped project, the hydropower plants are separated into four subgroups: subgroup separately in Chongqing City, Sichuan Province, Yunnan Province and Guizhou Province. By considering the project amount within different sub-groups and classified scale of the project activity (i.e. installed capacity $\leq$ 5MW or $>$ 5MW), in the end, 19 projects of the total 95 hydropower plants under this Grouped project are sampled. The final sampling result is demonstrated in the table below:

Grid	Province	Number of Projects	Number of Samples Required	Sampling Project Serial No.
Central China Power Grid (CCPG)	Sichuan	13	4	78, 82, 85, 86
	Chongqing	67	10	21, 37, 55, 57, 59, 62, 63, 65, 67, 69
Southern China	Yunnan	9	3	90, 94, 95

¹ <http://cdm.ccchina.gov.cn/web/NewsInfo.asp?NewsId=3239>

² For details please refer to section 3.2 of the validation report.

Power Grid (SCPG)	Guizhou ³	6	2	72, 75
Total Number of Projects		95	N/A	-
Total Number of Samples Required		N/A	19	-

Furthermore, the specific project documents of the sampling projects have been reviewed during verification process as indicated below.

Document Review List for Sampling Project No. 21

- <21-01> Chongqing City Wanzhou District Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Xianfeng Hydroelectric Plant, October 15th 2007.
- <21-02> Chongqing City Wanzhou District Xianfeng Hydroelectric Plant, Power Purchasing Agreement, July 4th 2007.
- <21-03> Chongqing City Wanzhou Measurement Quality Testing Centre, Calibration Certificate of Project No. 21, Valid from 11th August 2008 to 10th August 2013.
- <21-04> Chongqing City Wanzhou District Xianfeng Hydroelectric Plant, Daily and monthly reading records of Xianfeng Hydroelectric Plant.
- <21-05> Chongqing City Wulong County Xianfeng Hydroelectric Plant, Monitoring manual of Xianfeng Hydroelectric Plant, June 3rd. 2009.
- <21-06> Chongqing City Wanzhou District Xianfeng Hydroelectric Plant, Staff Training Records, March and April 2011.
- <21-07> Chongqing City Wanzhou district Xianfeng Hydroelectric Plant, Electrical Connection Scheme of Xianfeng Hydroelectric Plant, January 2012.
- <21-08> Chongqing City Wanzhou District Xianfeng Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 37

- <37-01> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.
- <37-02> Chongqing City Wulong County Baijia Hydroelectric Plant, Daily and monthly reading records of Baijia Hydroelectric Plant.
- <37-03> Chongqing City Wulong County Baijia Hydroelectric Plant, Monitoring manual of Baijia Hydroelectric Plant.

³ The six individual projects in Guizhou Province under the grouped project (project numbers included: 70~75) have claimed zero emission reductions, because the monitoring data of these projects are not available during this monitoring period.

<37-04> Chongqing City Wulong County Baijia Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 55

- <55-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Canglong Hydroelectric Plant, January 12th 2005.
- <55-02> Chongqing City Wulong County Canglong Hydroelectric Plant, Power Purchase Agreement, November 18th 2004.
- <55-03> Chongqing City Fuling Power Industrial Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.
- <55-04> Chongqing City Wulong County Canglong Hydroelectric Plant, Daily and monthly reading records of Canglong Hydroelectric Plant.
- <55-05> Chongqing City Wulong County Canglong Hydroelectric Plant, Monitoring manual of Canglong Hydroelectric Plant, June 3rd. 2009.
- <55-06> Chongqing City Wulong County Canglong Hydroelectric Plant, Electrical Connection Scheme of Canglong Hydroelectric Plant.
- <55-07> Chongqing City Wulong County Canglong Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 57

- <57-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Heixigou Hydroelectric Plant, February 15th 2003.
- <57-02> Chongqing City Wulong County Heixigou Hydroelectric Plant, Power Purchasing Agreements, February 25th 2009 and December 28th 2010.
- <57-03> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration, Calibration of Project No. 57, Valid from 15th December 2009 to 14^h December 2014.
- <57-04> Chongqing City Wulong County Heixigou Hydroelectric Plant, Daily and monthly reading records of Heixigou Hydroelectric Plant.
- <57-05> Chongqing City Wulong County Heixigou Hydroelectric Plant, Monitoring manual of Heixigou Hydroelectric Plant, June 3rd. 2009.
- <57-06> Chongqing City Wulong County Heixigou Hydroelectric Plant, Staff Training Records, April, May, September and December 2010.
- <57-07> Chongqing City Wulong County Heixigou Hydroelectric Plant, Electrical Connection Scheme of Heixigou Hydroelectric Plant.
- <57-08> Chongqing City Wulong County Heixigou Hydroelectric Plant, electricity transaction receipts from April 2007 June 2009 to June 2011.

Document Review List for Sampling Project No. 59

- <59-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Muzonghe Stage IV Hydroelectric Plant, March 10th 2004.

- <59-02> Chongqing City Wulong County Muzonghe Stage IV Hydroelectric Plant, Power Purchasing Agreements, February 25th 2009 and December 28th 2010.
- <59-03> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration, Calibration of Project No. 59, Valid from 15th December 2009 to 14^h December 2014.
- <59-04> Chongqing City Wulong County Muzonghe Stage IV Hydroelectric Plant, Daily and monthly reading records of Muzonghe Stage IV Hydroelectric Plant.
- <59-05> Chongqing City Wulong County Muzonghe Stage IV Hydroelectric Plant, Monitoring manual of Muzonghe Stage IV Hydroelectric Plant, June 3rd. 2009.
- <59-06> Chongqing City Wulong County Muzonghe Stage IV Hydroelectric Plant, Staff Training Records, August and December 2009, and February and December 2010.
- <59-07> Chongqing City Wulong County Muzonghe Stage IV Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 62

- <62-01> Chongqing City Wulong County Shuangchahe Hydroelectric Plant, Power Purchasing Agreement, January 1st, 2010.
- <62-02> Chongqing City Fuling Power Industrial Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.
- <62-03> Chongqing City Wulong County Shuangchahe Hydroelectric Plant, Daily and monthly reading records of Shuangchahe Hydroelectric Plant.
- <62-04> Chongqing City Wulong County Shuangchahe Hydroelectric Plant, Staff Training Records, January 2011.
- <62-05> Chongqing City Wulong County Shuangchahe Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 63

- <63-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Songshigou Hydroelectric Plant, December 12th 2005.
- <63-02> Chongqing City Wulong County Songshigou Hydroelectric Plant, Power Purchasing Agreements, April 13rd 2004 and May 30th 2007.
- <63-03> Chongqing City Fuling Power Industrial Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.
- <63-04> Chongqing City Wulong County Songshigou Hydroelectric Plant, Daily and monthly reading records of Songshigou Hydroelectric Plant.
- <63-05> Chongqing City Wulong County Songshigou Hydroelectric Plant, Monitoring manual of Songshigou Hydroelectric Plant, June 3rd. 2009.
- <63-06> Chongqing City Wulong County Songshigou Hydroelectric Plant, Staff Training Records, March 2011.
- <63-07> Chongqing City Wulong County Songshigou Hydroelectric Plant, Electrical Connection Scheme of Songshigou Hydroelectric Plant.

<63-08> Chongqing City Wulong County Songshigou Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

<63-09>

Document Review List for Sampling Project No. 65

<65-01> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.

<65-02> Chongqing City Wulong County Shujiahe Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 67

<67-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Baiguo Hydroelectric Plant, February 4th 2005.

<67-02> Chongqing City Wulong County Baiguo Hydroelectric Plant, Power Purchasing Agreement, December 20th 2010.

<67-03> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.

<67-04> Chongqing City Wulong County Baiguo Hydroelectric Plant, Daily and monthly reading records of Baiguo Hydroelectric Plant.

<67-05> Chongqing City Wulong County Baiguo Hydroelectric Plant, Monitoring manual of Baiguo Hydroelectric Plant, June 3rd. 2009.

<67-06> Chongqing City Wulong County Baiguo Hydroelectric Plant, Staff Training Records, January and May 2011.

<67-07> Chongqing City Wulong County Baiguo Hydroelectric Plant, Electrical Connection Scheme of Baiguo Hydroelectric Plant, January 2012.

<67-08> Chongqing City Wulong County Baiguo Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 69

<69-01> Chongqing City Wulong County Construction Acceptance Committee, Construction Accomplishment Acceptance Report of Baiyang Hydroelectric Plant, February 4th 2005.

<69-02> Chongqing City Wulong County Baiyang Hydroelectric Plant, Power Purchasing Agreement, December 20th 2010.

<69-03> Chongqing City Wulong County Power Supply Co., Ltd., Calibration Illustration Letter for Meter Measurement and Calibration.

<69-04> Chongqing City Wulong County Baiyang Hydroelectric Plant, Daily and monthly reading records of Baiyang Hydroelectric Plant.

<69-05> Chongqing City Wulong County Baiyang Hydroelectric Plant, Monitoring manual of Baiyang Hydroelectric Plant, June 3rd. 2009.

<69-06> Chongqing City Wulong County Baiyang Hydroelectric Plant, Staff Training Records, January and May 2011.

- <69-07> Chongqing City Wulong County Baiyang Hydroelectric Plant, Electrical Connection Scheme of Baiyang Hydroelectric Plant, January 2012.
- <69-08> Chongqing City Wulong County Baiyang Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 78

- <78-01> Beijing Hongri Public Accounting Firm Yingjing Branch, Construction Accomplishment Acceptance Report of Mayihe Hydroelectric Plant, May 2006.
- <78-02> Sichuan Province Ya'an City Yingjing County Mayihe Hydroelectric Plant, Power Purchasing Agreement, December 20th 2009.
- <78-03> Ya'an City Yingjing County Power Supply Co., Ltd. Measurement and Calibration Station, Calibration Certificate of Project No. 78, Valid from 28th August 2010 to 27th August 2015.
- <78-04> Ya'an City Yingjing County Mayihe Hydroelectric Plant, Daily and monthly reading records of Mayihe Hydroelectric Plant.
- <78-05> Ya'an City Yingjing County Mayihe Hydroelectric Plant, Monitoring manual of Mayihe Hydroelectric Plant.
- <78-06> Ya'an City Yingjing County Mayihe Hydroelectric Plant, Staff Training Records, 2011.
- <78-07> Ya'an City Yingjing County Mayihe Hydroelectric Plant, Electrical Connection Scheme of Mayihe Hydroelectric Plant, December 2011.
- <78-08> Ya'an City Yingjing County Mayihe Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 82

- <82-01> Beijing Hongri Public Accounting Firm Yingjing Branch, Construction Accomplishment Acceptance Report of Yunwushan Hydroelectric Plant, March 2007.
- <82-02> Sichuan Province Ya'an City Yingjing County Yunwushan Hydroelectric Plant, Power Purchasing Agreement, November 16th 2006.
- <82-03> Ya'an City Yingjing County Power Supply Co., Ltd. Measurement and Calibration Station, Calibration Certificate of Project No. 82, Valid from 14th January 2010 to 13th January 2015.
- <82-04> Ya'an City Yingjing County Yunwushan Hydroelectric Plant, Daily and monthly reading records of Yunwushan Hydroelectric Plant.
- <82-05> Ya'an City Yingjing County Yunwushan Hydroelectric Plant, Monitoring manual of Yunwushan Hydroelectric Plant.
- <82-06> Ya'an City Yingjing County Yunwushan Hydroelectric Plant, Staff Training Records.
- <82-07> Ya'an City Yingjing County Yunwushan Hydroelectric Plant, Electrical Connection Scheme of Yunwushan Hydroelectric Plant, December 2011.
- <82-08> Ya'an City Yingjing County Yunwushan Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 85

- <85-01> Beijing Hongri Public Accounting Firm Yingjing Branch, Construction Accomplishment Acceptance Report of Daihuanggou Hydroelectric Plant, March 2006.
- <85-02> Sichuan Province Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, Power Purchasing Agreement, December 20th 2009.
- <85-03> Ya'an City Yingjing County Power Supply Co., Ltd. Measurement and Calibration Station, Calibration Certificate of Project No. 85, Valid from 28th April 2011 to 27th April 2016.
- <85-04> Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, Daily and monthly reading records of Daihuanggou Hydroelectric Plant.
- <85-05> Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, Monitoring manual of Daihuanggou Hydroelectric Plant, May 2009.
- <85-06> Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, Staff Training Records, 2009.
- <85-07> Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, Electrical Connection Scheme of Daihuanggou Hydroelectric Plant, December 2011.
- <85-08> Ya'an City Yingjing County Daihuanggou Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 86

- <86-01> Yingjing County Audit Bureau, Construction Accomplishment Acceptance Report of Gaoqiaohe Hydroelectric Plant, March 10th 2006.
- <86-02> Sichuan Province Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, Power Purchasing Agreement, December 20th 2009.
- <86-03> Ya'an City Yingjing County Power Supply Co., Ltd. Measurement and Calibration Station, Calibration Certificate of Project No. 86, Valid from 12th January 2010 to 13th January 2015.
- <86-04> Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, Daily and monthly reading records of Gaoqiaohe Hydroelectric Plant.
- <86-05> Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, Monitoring manual of Gaoqiaohe Hydroelectric Plant.
- <86-06> Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, Staff Training Records, June 2010, and May and June 2011.
- <86-07> Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, Electrical Connection Scheme of Gaoqiaohe Hydroelectric Plant, December 2011.
- <86-08> Ya'an City Yingjing County Gaoqiaohe Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 90

- <90-01> Lincang City Linxiang District Dabaishu Hydroelectric Plant, Power Purchasing Agreements, 2009, 2010 and 2011.
- <90-02> Yunnan Power Grid Company Lincang Power Supply Bureau Power Energy Measurement Centre, Calibration Certificate of Project No. 90, Valid from 9th May 2007 to 8th May 2013.

- <90-03> Lincang City Linxiang District Dabaishu Hydroelectric Plant, Daily and monthly reading records of Dabaishu Hydroelectric Plant.
- <90-04> Lincang City Linxiang District Dabaishu Hydroelectric Plant, Monitoring manual of Dabaishu Hydroelectric Plant, January 2009.
- <90-05> Lincang City Linxiang District Dabaishu Hydroelectric Plant, Staff Training Records, January and June 2011.
- <90-06> Lincang City Linxiang District Dabaishu Hydroelectric Plant, Electrical Connection Scheme of Dabaishu Hydroelectric Plant, October 2011.
- <90-07> Lincang City Linxiang District Dabaishu Hydroelectric Plant, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 94

- <94-01> Yunnan Province People's Government Investment Project Evaluation Center, Construction Accomplishment Acceptance Report of Zhenyuan County Xiaojiehe Hydropower Station, May 2nd 2008.
- <94-02> Puer City Zhenyuan County Xiaojiehe Hydropower Station, Power Purchasing Agreement, March 25th 2009.
- <94-03> Puer Power Supply Co., Ltd., Calibration Records of Project No. 94, 22th May 2009, 21st October 2010, 13th July 2011 and 8th October 2013.
- <94-04> Puer City Zhenyuan County Xiaojiehe Hydropower Station, Daily and monthly reading records of Xiaojiehe Hydropower Station.
- <94-05> Puer City Zhenyuan County Xiaojiehe Hydropower Station, Monitoring manual of Xiaojiehe Hydropower Station.
- <94-06> Puer City Zhenyuan County Xiaojiehe Hydropower Station, Electrical Connection Scheme of Xiaojiehe Hydropower Station.
- <94-07> Puer City Zhenyuan County Xiaojiehe Hydropower Station, electricity transaction receipts from June 2009 to June 2011.

Document Review List for Sampling Project No. 95

- <95-01> Jinghong City Xishuangbanna Dai Autonomous Prefecture Chuangye Hydropower Station, Power Purchasing Agreements, January 2004 and February 2010.
- <95-02> Jinghong Power Supply Co., Ltd. Measurement Centre, Calibration Records of Project No. 95, 13th May 2009, 10th May 2010 and 6th May 2011.
- <95-03> Jinghong City Xishuangbanna Dai Autonomous Prefecture Chuangye Hydropower Station, Daily and monthly reading records of Chuangye Hydropower Station.
- <95-04> Jinghong City Xishuangbanna Dai Autonomous Prefecture Chuangye Hydropower Station, Electrical Connection Scheme of Chuangye Hydropower Station.
- <95-05> Jinghong City Xishuangbanna Dai Autonomous Prefecture Chuangye Hydropower Station, electricity sales receipts from June 2009 to June 2011.

3.3 Interviews

From 16/10/2011 to 22/10/2011, 27/12/2011 to 30/12/2011 and 09/01/2012 to 12/01/2012, the Validation Team of TÜV Rheinland has performed personal interviews with representatives of the project owner and local authorities at Yunnan Province, Sichuan Province and Chongqing City respectively. The main topics of the interviews were:

- Project's implementation
- Project monitoring structure
- Project monitoring implementation
- Monitoring equipments installation and calibration
- Monitoring data collection and archive

1. Place: Zhenyuan County/Xishuangbanna Prefecture/Lincang County, Yunnan Province, P. R. China

	Date	Name	Organization	Topic
/i/	2011-10-17	Mr. Wei Yulin	Xishuangbanna Chuangye Hydropower Development Co., Ltd.	- Project background - Local hydropower development - Investment barriers - Project finance
/ii/	2011-10-17	Mr. Zhang Qingxi	Villager	- Environmental impact - Sustainable development
/iii/	2011-10-17	Mr. Long Jun	Xishuangbanna Chuangye Hydropower Development Co., Ltd.	- Project management - Monitoring issues

/iv/	2011-10-17	Mr. Zhou Jiagui	Xishuangbanna Chuangye Hydropower Development Co., Ltd.	
/v/	2011-10-17	Mr. Wuyun	Xishuangbanna Chuangye Hydropower Development Co., Ltd.	
/vi/	2011-10-18	Mr. Zhang Jizhong	General Manager of Xiaojiehe Hydropower Co., Ltd.	
/vii/	2011-10-18	Mr. Fu Kaicong	Xiaojiehe Hydropower Co., Ltd.	
/viii/	2011-10-20	Mr. Li Shaochun	Operation and Maintenance Department of Lincang Runda Hydropower Co., Ltd.	
/ix/	2011-10-20	Mr. Su Zhangping	Comprehensive Department of Lincang Runda Hydropower Co., Ltd.	
/x/	2011-10-20	Mr. Yang Dingxiang	Lincang Runda Hydropower Co., Ltd. Dabaishu Hydropower Station	
/xi/	2011-10-20	Ms. Li Ziping	Finance Department of Lincang Runda Hydropower Co., Ltd.	
/xii/	2011-10-20	Ms. Shen Shiyan	Comprehensive Department of Lincang Runda Hydropower Co., Ltd.	
/xiii/	2011-10-20	Mr. Yang Shaoshan	Villager of Dabaishu Village	

2. Place: Ya'an County, Sichuan Province, P. R. China

	Date	Name	Organization	Topic
/xiv/	2011-12-28	Mr. Mou Wei	Legal Representative of Mayihe Hydroelectric Plant	- Project background - Local hydropower development - Investment barriers

/xv/	2011-12-28	Ms. Liang Xia	Staff of Mayihe Hydroelectric Plant	
/xvi/	2011-12-28	Mr. Wang Xiang	Head of Mayihe Hydroelectric Plant	
/xvii/	2011-12-28	Mr. Wei Zhengping	Legal Representative of Daihuanggou Hydroelectric Plant	
/xviii/	2011-12-28	Mr. Wang Jiawei	Head of Daihuanggou Hydroelectric Plant	
/xix/	2011-12-28	Mr. Li Bingzhi	Staff of Daihuanggou Hydroelectric Plant	
/xx/	2011-12-28	Mr. Liu Peng	Staff of Daihuanggou Hydroelectric Plant	
/xxi/	2011-12-29	Mr. Liu Dehong	Plant Manager of Yunwushan (Qingshuihe Stage I Hydroelectric Plant) Hydroelectric Co., Ltd.	
/xxii/	2011-12-29	Mr. Zhong Jiabing	Yunwushan (Qingshuihe Stage I Hydroelectric Plant) Hydroelectric Co., Ltd.	
/xxiii/	2011-12-29	Mr. Wu Zongji	Yunwushan (Qingshuihe Stage I Hydroelectric Plant) Hydroelectric Co., Ltd.	
/xxiv/	2011-12-29	Ms. Mao Tingju	Yunwushan (Qingshuihe Stage I Hydroelectric Plant) Hydroelectric Co., Ltd.	
/xxv/	2011-12-29	Mr. Wang Jiawu	General Manager of Gaoqiaohe Hydroelectric Plant	
/xxvi/	2011-12-29	Mr. Wang Yong	Monitor of Gaoqiaohe Hydroelectric Plant	
/xxvii/	2011-12-29	Mr. Zheng Jihua	Staff of Gaoqiaohe Hydroelectric Plant	

3. Place: Wulong County, Chongqing City, P. R. China

	Date	Name	Organization	Topic
/xxviii/	2012-01-10	Mr. Liao Huaping	General Manager of Shuangchahe Hydroelectric Plant	- Project background - Local hydropower development

/xxix/	2012-01-10	Mr. Huang Kunqiang	Staff of Shuangchahe Hydroelectric Plant	- Investment barriers - Project finance - Environmental impact - Sustainable development
/xxx/	2012-01-10	Mr. Chen Shi Yan	Wulong County Canglong Hydropower Co., Ltd.	
/xxxi/	2012-01-10	Mr. Liao Mingzhong	Staff of Canglong Hydroelectric Plant	
/xxxii/	2012-01-10	Mr. Zuo Changhui	Wulong County Zili Hydropower Co., Ltd.	
/xxxiii/	2012-01-10	Mr. Liao Zhihang	Staff of Shujiahe Hydroelectric Plant	
/xxxiv/	2012-01-10	Mr. Chen Qinglin	Songshigou Hydroelectric Plant	
/xxxv/	2012-01-10	Mr. He Tinghua	Songshigou Hydroelectric Plant	
/xxxvi/	2012-01-10	Mr. He Xiaobin	Baijia Hydroelectric Plant	
/xxxvii/	2012-01-10	Mr. Dou Xingrong	Staff of Baijia Hydroelectric Plant	
/xxxviii/	2012-01-10	Mr. Xu Xuebing	General Secretary of Wulong County Small Hydropower Association	- Project management - Hydropower development barrier - Financial issues - Environmental impact - Monitoring issues - Local stakeholder comments - Environmental Impact - Job opportunities
/xxxix/	2012-01-10	Mr. Wang Wei	General Manager of Heixigou Hydroelectric Plant	
/xl/	2012-01-10	Mr. Wu Jianyang	Staff of Heixigou Hydroelectric Plant	
/xli/	2012-01-10	Mr. Xu Xuebing	General Secretary of Wulong County Small Hydropower Association	
/xlii/	2012-01-10	Mr. Zou Mingshun	Head of Baiyang Hydroelectric Plant	
/xliii/	2012-01-10	Ms. Ruan Xiaolan	Monitor of Baiyang Hydroelectric Plant	
/xliv/	2012-01-10	Mr. Yu Daijun	Monitor of Muzonghe Stage IV Hydroelectric Plant	
/xlv/	2012-01-10	Mr. Huang Hefang	Staff of Muzonghe Stage IV Hydroelectric Plant	
/xlvi/	2012-01-10	Mr. Xu Xuebing	General Secretary of Wulong County Small Hydropower Association	
/xlvii/	2012-01-10	Mr. Guo Ming	Monitor of Baiguo Hydroelectric Plant	
/xlviii/	2012-01-10	Ms. Tian Xiaoya	Staff of Baiguo Hydroelectric Plant	

4. Place: Wanzhou District, Chongqing City, P. R. China

	Date	Name	Organization	Topic
/xlix/	2012-01-11	Mr. Yin Xianyun	General Manager of Chongqing Wanzhou Electric Development Co., Ltd.	- Project background - Local hydropower development - Investment barriers - Project finance
//	2012-01-11	Ms. Long Yu	Vice General Manager of Chongqing Wanzhou Electric Development Co., Ltd.	- Environmental impact - Sustainable development - Project management - Monitoring issues - Local stakeholder comments - Environmental Impact - Job opportunities

3.4 Site Inspections

During 16/10/2011 to 22/10/2011, 27/12/2011 to 30/12/2011 and 09/01/2012 to 12/01/2012, TÜV Rheinland performed a physical site inspection to

- confirm the implementation and operation of the project,
- review the data flow for generating, aggregating and reporting the monitoring parameters,
- cross-check the information provided in the MR documentation and other relevant information against the requirements of the monitoring plan
- review the calculations process to obtain the emission reductions
- identify if the monitoring management system is in place to and adequate training has been provided to the CDM team members.

3.5 Resolution of Any Material Discrepancy

Table : List of Requests for Corrective Action (CAR) and Clarification (CL)

Observation	Reference	Summary of project owner response	Verification team conclusion
CAR1 Please clarify how the monitoring period is determined for the grouped project and justify if there is any overlap the first monitoring period.	/1//2//3//4//6/	The 1st monitoring period of the grouped project is from 01-04-2006 to 05-06-2009. The 2nd monitoring period is from 14-06-2009 to 25-06-2011. There is no overlap between the first monitoring period and the second monitoring period. It should be noted that as a grouped project, the project is a	OK. The starting date of the 2nd monitoring period in the revised MR and VER spread sheets have been updated as 14/06/2009. Since the 1st monitoring period has verified from 01/04/2006 to 05/06/2009, the verification team confirms there is no overlap.

		bundle of over 95 sub-projects. Among the 95 projects, there is different data coverage (due to different electricity settlement date between the project owner and the grid). The 1st monitoring period of the grouped project is from 01-04-2006 to 05-06-2009, and the corresponding monitoring data are covering the period from April 2006 to May 2009. The start date of "01-04-2006" is chosen based on the earliest available data from the sub-projects, and the end date of "05-06-2009" is chosen based on the last available data from the sub-projects. Following the end of the first monitoring period, data starting from 06-06-2009 could be accounted for the 2nd monitoring period. However, as mentioned above settlement date varies among projects, (in fact, for most of the projects, the electricity settlement period for each month starts on the 26th of the previous month and ends on the 25th of the month concerned), to ensure there is no overlap with the first monitoring period, the settlement period that starts earlier than 06-06-2009 is excluded from the calculation. And only monitoring data based on settlement records that start later than 06-06-2009 can be taken into account. The earliest of the settlement records, which meet this requirement, is 14-06-2009. Hence, the second monitoring period is defined as from 14-06-2009 to 25-06-2011, with the monitoring data covering the	The CAR is therefore closed.
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		period from July 2009 to June 2011. This is also conservative.	
CAR2 Please remove the withdrawn projects from the group in the monitoring report since these projects are not involved in the monitoring period.	/1//2//3// 4//6/	The withdrawn projects have been removed from the group in the revised monitoring report.	OK. The MR has been revised. The CAR is therefore closed.
CAR3 Please refer to Section 4.1 of the monitoring report, the baseline emissions of the grouped project shall be revised according to the monitoring data during this monitoring period.	/1//2//3// 4//6/	The baseline emissions of the grouped project have been revised according to the actual monitoring data during this monitoring period: During this monitoring period, the baseline emission reductions for Central China Power Grid is 794955 tCO₂e. During this monitoring period, the baseline emission reductions for South China Power Grid is 284,968 tCO₂e. The total baseline emissions for the Grouped Project during this monitoring period amounts therefore to 1,079,923 tCO₂e.	OK. The MR has been revised in line with the VER spread sheets. The baseline emissions within CCPG and SCPG are verified as 794955 tCO₂e and 284,968 tCO₂e respectively. The total baseline emissions for the Grouped Project during this monitoring period amounts therefore to 1,079,923 tCO₂e. The CAR is therefore closed.
CL1 Please clarify why the grouped projects in Guizhou Province have not claimed emission reductions in the ER calculation spreadsheets and monitoring report.	/1//2//3// 4//6/	The six individual projects in Guizhou Province under the grouped project (project numbers included: 70~75) have claimed zero emission reductions. The reason is that monitoring data of these projects are not available.	OK. The monitoring data of the six projects in Guizhou Province are not available for verification and it is conservative that the PP claimed as zero for these projects during this monitoring period. The CL is therefore closed.
CL2 It was observed during onsite assessment that monitoring meters of some sampling projects have been replaced during this monitoring period.	/1//2//3// 4//6/	Replacement information for monitoring meters of sampling projects has been added in Section 2.1 and Section 5.2 of	OK. The meter replacement information has been added in the MR.

Please reflect it in Section 2.1 and Section 5.2 of the monitoring report.		the revised monitoring report.	The CL is therefore closed.
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4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The proposed Grouped Project involves the installation and operation of 95 run-of-river hydropower plants in Chongqing, Sichuan, Guizhou and Yunnan Provinces, People's Republic of China.

It was confirmed by site inspection of sampling projects in Chongqing, Sichuan and Yunnan Province that the grouped projects were developed as run-of-river hydropower projects, consisting of water intake structure, the water conveyance system and the power house. The power generating technology, installed capacity, technical specifications of the water turbine generators and electricity delivering systems have been verified to be consistent with the validated PD by site assessment of the sampling projects.

The verification team has reviewed the Construction Accomplishment Acceptance Report⁴ for the sampling projects and has verified that the project commissioning start date has been appropriately determined in the monitoring report in accordance with the validated PD.

Therefore, the verification team confirms that no data and/or variables presented in the monitoring report and the associated emission reduction calculations differ significantly from the ones stated in the validated PD, which may lead to an increase in the emission reductions for this period in relation to the estimates in the validated PD.

According to the validated PD, the Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P. R. China is a grouped project under the definitions of VCS 3.2, and it consists of four sub-groups (i.e. 9 projects are located in Yunnan Province, 67 in Chongqing City, 13 in Sichuan Province and 6 in Guizhou Province), which are classified by geographical boundary.

The verification team has independently carried out a sampling approach for the Grouped Project according to the Sampling Guidance, Clause A.2.4.6.4. Since the monitoring data of the six projects (i.e. Project No.70–75) are not available for verification and the project proponent claimed zero emission reduction during this monitoring period, the verification team has not conducted onsite visit of these projects. For projects located in Chongqing, Sichuan and Yunnan Provinces, the verification team has visited the project sites by sampling method. By evaluating the potential risks (i.e. project types, installed capacity, estimated emission reductions, financial return rate and environmental impact) underlying the grouped project activities, the verification team finally determined the 17 sampling projects from the Grouped Project and carried out a complete verification of these 17 sampling projects as listed in the following tables.

⁴ The detailed references of each sampled project have been Listed in the Section 3.2 of this report.

Grid	Province	Number of Projects	Number of Samples Required	Sampling Project Serial No.
Central China Power Grid (CCPG)	Sichuan	13	4	78, 82, 85, 86
	Chongqing	67	10	21, 37, 55, 57, 59, 62, 63, 65, 67, 69
Southern China Power Grid (SCPG)	Yunnan	9	3	90, 94, 95

The verification team has confirmed by onsite assessment that the total generation capacity of the sampling projects are consistent with the validated PD. The relevant evidence on how the GHG data were monitored and collected during the monitoring period (including daily and monthly monitoring records, the electricity transaction receipts, electricity sale receipts, the accuracy and calibration of the electricity meters⁵). have been reviewed during onsite assessment. The major technical specifications of the sampling projects have been verified and listed in the table below:

Verified Technical Specifications of the Water Turbine Generators

No.	Project Title	Project Owner	Major Generating Facilities	
21	Chongqing Wanzhou Xianfeng Hydroelectric Plant	Chongqing Wanzhou Xianfeng Hydroelectric Plant	Capacity	2*1.8 MW
			Hydro Turbine	HLA542-WJ-60
			Generators:	SFW-J1800-4/1480
37	Baijia Hydroelectric Plant	Wulong Boneng Electric Power Co., Ltd.	Capacity	1*0.4 MW
			Hydro Turbine	HL200-WJ-35
			Generators:	SFW-560
55	Canglong Hydroelectric Plant	Wulong Canglong Hydropower Co., Ltd.	Capacity	0.88 MW (1*0.63MW+1*0.25MW)
			Hydro Turbine	HLA-WJ-50
				HL110-WJ-42

⁵ The detailed references of each sampled project have been Listed in the Section 3.2 of this report.

			Generators:	SFW-W630-6/990 SFW-W250-6/740
57	Heixigou Hydroelectric Plant	Wulong Landi Hydropower Co., Ltd.	Capacity	1*1.0 MW
			Hydro Turbine	CJA237-W-115/1×13
			Generators:	SFW1000-12/1430
59	Muzonghe Stage IV Hydroelectric Plant	Wulong Landi Hydropower Co., Ltd.	Capacity	3*0.36 MW
			Hydro Turbine	HCD46-WJ-84
			Generators:	SFW360-14/180
62	Shuangchahe Hydroelectric Plant	Wulong Shuangchahe Hydroelectric Plant	Capacity	1.43 MW (1*0.63MW + 1*0.8MW)
			Hydro Turbine	CJA237-W-90/1x5.5 CJA237-W-90/1X5
			Generators:	SFW-800-6/990 SFW-630-6/990
63	Songshigou Hydroelectric Plant	Wulong Tukan Songshigou Hydroelectric Plant	Capacity	3*0.5 MW
			Hydro Turbine	GJ22-W-70/1X9
			Generators:	SFW-W500-8/990
65	Shujiahe Hydroelectric Plant	Wulong Zili Electric Power Co., Ltd.	Capacity	2*1.25 MW
			Hydro Turbine	HLD54-WJ-71
			Generators:	SFWE-K1250-6/1430
67	Baiguo Hydroelectric Plant	Chongqing Wulong Yuxiang Water Resource Development Co., Ltd.	Capacity	2*1.6 MW
			Hydro Turbine	CJA237-W-110/2×11B
			Generators:	SFW1600-12/1730
69	Baiyang Hydroelectric	Chongqing Wulong	Capacity	2*2.5 MW

	Plant	Yuxiang Water Resource Development Co., Ltd.	Hydro Turbine	CJA237-W-100/1×11
			Generators:	SFW2500-8/17300
78	Mayihe Hydroelectric Plant	Yingjing Mayihe Hydropower Station	Capacity	2*0.63 MW
			Hydro Turbine	DL54-WJ-60
			Generators:	SFW-W630-6/990
82	Qingshuihe Stage I Hydroelectric Plant	Sichuan Yingjing Yunwushan Hydropower Co., Ltd.	Capacity	2*2.5 MW
			Hydro Turbine	CJA237-W-110/2×10.2
			Generators:	SFW5000-8/2160
85	Daihuanggou Hydroelectric Plant	Yingjing County Sanhe Daihuanggou Hydroelectric Plant	Capacity	2*4.0 MW
			Hydro Turbine	CJA237-W-110/2×9
			Generators:	SFWE-K4000-8/1730
86	Gaoqiaohe Hydroelectric Plant	Sichuan Yingjing Gaoqiaohe Electric Power Co., Ltd.	Capacity	3*3.2 MW
			Hydro Turbine	HL110-WJ-92 (2 units) HLDT9-WJ-G2 (1 unit)
			Generators:	SFW3200-8/1730
90	Dabaishu Hydroelectric Plant	Lingcang Runda Hydropower Co., Ltd.	Capacity	2*1.6 MW
			Hydro Turbine	HLA244-WJ-71A
			Generators:	SFW1600-9/1430
94	Zhenyuan County Xiaojiehe Hydropower Station	Zhenyuan Yi, Hani and Lahu Autonomous County Xiaojiehe Hydropower Co., Ltd.	Capacity	2*2.5 MW
			Hydro Turbine	HL110-WJ-78
			Generators:	SFW2500-6/1430
95	Jinghong City Chuangye Hydropower Station	Xishuangbanna Chuangye Hydropower Development Co., Ltd.	Capacity	2*4.0 MW
			Hydro Turbine	CJA237-W-115/2X12
			Generators:	SFW4000-10/2150

According to the validated PD and the emission reductions calculation spreadsheets, the total net electricity export to Southern China Power Grid (SCPG) is the accumulated electricity supply by the grouped projects that are located in Yunnan Province (i.e. Project No. 90~98) and Guizhou Province (i.e. Project No. 70~75). The total net electricity export to Central China Power Grid (CCPG) is the accumulated electricity supply by the grouped projects that are located in Chongqing City (i.e. Project No. 1~69 excluding 17 and 19) and Sichuan Province (i.e. Project No. 76~88). The total electricity export to SCPG and CCPG has been summarized in the emission reduction calculation spreadsheets and checked to be correctly accounted. The actual net electricity export to SCPG and CCPG is listed in the table below and compared with the estimated values in the validated PD.

Net Electricity Export to SCPG (Unit: MWh)

Year	SCPG ($EG_{Export,y}$)	Compared with Validated PD ⁶
2009	110,805.199	N/A
2010	158,458.132	158,458.132/356,851.44=0.4440
2011	57,863.035	N/A
Total	327,126.366	N/A

Note: The total net electricity export to SCPG is estimated as 356,851.44 MWh/year in the validated PD.

Net Electricity Export to CCPG (Unit: MWh)

Year	CCPG($EG_{Export,y}$)	Compared with Validated PD
2009	217,712.126	N/A
2010	431,277.405	431,277.405/470,996=0.9157
2011	167,746.010	N/A
Total	816,735.541	N/A

Note: The total net electricity export to SCPG is estimated as 470,996 MWh/year in the validated PD.

From the tables above, the verification team confirms that the total net electricity exports to SCPG and CCPG are both comparable with the estimated values in the validated PD and the ratios of the monitored net electricity exports to the corresponding estimated values of SCPG and CCPG are 0.4440 and 0.9157 respectively.

⁶ Since the monitoring period of the Grouped Project is from 14/06/2009 to 25/06/2011 which does not cover the whole year of 2009 and 2011, it is reasonable that the net electricity export to SCPG and CCPG in year 2010 is comparable with the estimated annual electricity export in the validated PD.

The implementation of the project activity is consistent with the registered PD, and there are no diversions from the original plan. The performance of the project in terms of emission reductions is described in Section 4 of the final monitoring report/2/.

4.2 Accuracy of GHG Emission Reduction or Removal Calculations

The verification team has assessed the monitoring techniques and feasibility of the values. A short summary on the verification of every parameter listed in the monitoring plan and used for emission reduction calculation is provided below:

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PD):	EG_{Export,y} The accumulated net electricity exported to the Southern China Power Grid by all the hydropower plants under the Grouped project located in Yunnan Province and Guizhou Province in the year y
Measuring frequency:	Continuously measurement
Reporting frequency:	Monthly recorded
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	Gateway meters
Is accuracy of the monitoring equipment as stated in the PD? If the PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes.
Calibration frequency /interval:	Periodically
Is the calibration interval in line with the monitoring plan of the PD? If the PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration:	
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting	Yes.

period?	
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross-checked with the electricity transaction receipts in line with the registered VCS PD.
How were the values in the monitoring report verified?	The verification details have been reported in Section 4.3 of this report.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PD):	EG_{Export,y} The accumulated net electricity exported to the Central China Power Grid by all the hydropower plants under the Grouped project located in Chongqing City and Sichuan Province in the year y
Measuring frequency:	Continuously measurement
Reporting frequency:	Monthly recorded
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	Gateway meters

Is accuracy of the monitoring equipment as stated in the PD? If the PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes.
Calibration frequency /interval:	Periodically
Is the calibration interval in line with the monitoring plan of the PD? If the PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration:	
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes.
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross-checked with the electricity transaction receipts in line with the registered VCS PD.
How were the values in the monitoring report verified?	The verification details have been reported in Section 4.3 of this report.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.

Furthermore, the verification team has verified that the accuracy of measure of the monitoring equipment was set according to the requirements and all calibration procedures were carried out according to the

monitoring plan and manufacturer specifications. The calibration information of all the sampling projects in this monitoring period has been listed in the table below. The monitoring equipment has been installed in the project activity according to registered monitoring plan. In summary, the verification team is able to verify that the accuracy the monitoring equipments were set according to the registered monitoring plan and relevant sectoral standard of China .

Project No.	Project title	Meter Serial No.		Meter Model Number	Calibration Certificate Serial No.	Calibration Entity	Calibration Date	Calibration Valid Until
21	Chongqing Wanzhou Xianfeng Hydroelectricity Plant	254729		DSSD536	087100001	Chongqing City Wanzhou Measurement Quality Testing Center	2008-08-11	2013-08-10
78	Mayihe Hydroelectric Plant	Old meter	50113401324-2	DSF32	2009047 2010052 2011025	Sichuan Yingjing Power Limited Company Metrological Verification Station	2009-04-16 2010-03-23 2011-03-23	2010-04-15 2011-03-22 2012-03-22
		New meter	09110204330092	DSSD331	201011015	Ya'an Yingjing Power Supply Limited Company Metrological Verification Station	2010-08-28	2015-08-27
82	Yunwushan Hydroelectric Plant	Old meter	50123400293-2	DSF32	2009060	Sichuan Yingjing Power Limited Company Metrological Verification Station	2009-05-27	2010-05-26
		New meter	09110204330098	DSSD331	201010018	Ya'an Yingjing Power Supply Limited Company Metrological	2010-01-14	2015-01-13

						Verification Station		
85	Daihuanggou Hydroelectric Plant	Old meter	50113402392-2	DSF32	2009055 2010072 2011048	Sichuan Yingjing Power Limited Company Metrological Verification Station	2009-04-14 2010-03-15 2011-03-07	2010-04-13 2011-03-14 2012-03-06
		New meter	10010237920004	DSSD331	201111032	Ya'an Yingjing Power Supply Limited Company Metrological Verification Station	2011-04-28	2016-04-27
86	Gaoqiaohe Hydroelectric Plant	Old meter	50153500001-2	DSF32	2009052	Sichuan Yingjing Power Limited Company Metrological Verification Station	2009-05-27	2010-05-26
		New meter	09110204330008	DSSD331	201011001	Ya'an Yingjing Power Supply Limited Company Metrological Verification Station	2010-01-12	2015-01-13
90	Dabaishu Hydroelectric Plant	030641		DSSD281	200705019	Yunnan Power Grid Company Lincang Power Supply Bureau Power Energy Metrological Center	2007-05-09	2013-05-08

94	Zhenyuan County Xiaojiehe Hydropower Station	04265653	DSSD188S (II8)	-	Zhenyuan Power Supply Limited Company	2009-05-22 2010-04-08 2010-10-21 2011-07-13	-
95	Jinghong City Chuangye Hydropower Station	011107050224	DSSD3000	-	Jinghong Power Supply Limited Company	2009-05-13 2010-05-10 2011-05-06	-

Project No.	Project title	Meter Serial No.	Meter Model Number	Calibration Entity	Calibration Date ⁷	Calibration Valid Until
37	Baijia Hydroelectric Plant	6012584356	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01
55	Canglong Hydroelectric Plant	200410419Q0313	DSSD331	Chongqing Fuling Electric Power Industrial Co., Ltd.	2009-07-01	2012-01-01

⁷ During the previous verification (1st monitoring period), the certification letters issued by the calibration entities confirm that the calibrations of the monitoring meters were valid until 2009-07-01. For this 2nd monitoring period, the calibrations of these meters are valid from 2009-07-01, so there is no gap between these two calibrations. Therefore, the calibration valid periods of these meters cover all this 2nd monitoring period.

57	Heixigou Hydroelectric Plant	6012584355	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01
59	Muzonghe Stage IV Hydroelectric Plant	6012584359	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01
62	Shuangchahe Hydroelectric Plant	10099436	ZFH405	Chongqing Fuling Electric Power Industrial Co., Ltd.	2009-07-01	2012-01-01
63	Songshigou Hydroelectric Plant	10099435	ZFH405	Chongqing Fuling Electric Power Industrial Co., Ltd.	2009-07-01	2012-01-01
65	Shujiahe Hydroelectric Plant	6012693630	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01
67	Baiguo Hydroelectric Plant	6012765144	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01
69	Baiyang Hydroelectric Plant	6012693715	DSSD71	Chongqing City Wulong County Power Supply Limited Company	2009-07-01	2012-01-01

4.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

It was verified that the grouped projects are new run-of-river hydropower project. Therefore, the project emission of the Grouped Project is zero under AMS-I.D. version 13 ($PE_y=0$).

The grouped projects are newly-built, with no transferred from another activity or to another activity. The main generating equipment including water turbine generators are newly purchased, and the name plates have been verified during site assessment. Therefore, no leakage needs to be considered for the project activity according to the methodology. ($L_y=0$).

Since the project emission and the leakage emission has been justified as zero under AMS.I.D Version 13, the calculation of the emission reductions simply involves the calculation of the baseline emissions.

Formula 1: $ER_y = BE_y - 0 - 0 = EG_{Export,y} \times EF_y$

Where:

ER_y : Emission reductions (Unit: tCO₂e)

$EG_{Export,y}$: Net electricity supplied to the grid (Unit: MWh)

EF_y : Baseline emission factor of the SCPG and CCPG, calculated ex-ante and will not be updated during the first crediting period. (Unit: tCO₂e/MWh)

BE_y : The baseline emissions (Unit: tCO₂e)

According to validated PD, the EF_y of is ex-ante determined as 0.9735 tCO₂e/MWh for CCPG and 0.87118 tCO₂e/MWh for SCPG over the first crediting period. The net electricity delivered to the grid (EG_y) is the difference between the electricity exported to the grid (EG_{out}) and the electricity imported from the grid (EG_{in}) i.e.:

Formula 2: $EG_{Export,y} = EG_{out} - EG_{in}$

The electricity exported and imported are both continuously monitored through bi-lateral gateway meters installed at a point which are both agreed by the grid company and the project owners. The daily and monthly monitoring records of all sampling projects have been verified during onsite assessment.

The verification team has cross-checked the input values in the emission reductions calculation spreadsheets with the electricity sales invoices and electricity transaction receipts of each grouped project. It was confirmed that the electricity sales invoices can only identify the electricity exported to the local grid (EG_{out}) while the electricity transaction receipts can identify the electricity import from the grid and electricity export to the grid (EG_{out} and EG_{in}). The electricity transaction receipts have been the basis for the grid company and project owner to issue the electricity invoices to each other.

It was also confirmed that most of the Grouped Projects have complete electricity transaction receipts during the monitoring period, which means that the electricity exported and imported can be directly determined through cross-check with the electricity transaction receipts available to verification team. However, for some grouped projects (e.g. Project No. 39, 46, 50 and 95 et al), the electricity transaction

receipts have not been completely collected while the electricity sales invoices issued by the project owner have been used for cross-check to determine the net electricity supply to the grid. In this case, the project proponents have conducted a conservative approach to determine the imported electricity for projects which only have the electricity invoices issued by the project owner and for projects which don't have imported electricity on electricity transaction receipts. As per the VER spreadsheet, a discount factor of 1.66% is applied and determined according to the highest average ratio of import electricity to export electricity of 59 projects which have the complete transaction receipts of electricity imported and exported during the monitoring period. The verification team has conducted the described process in the monitoring report and is able to confirm the selected discount factor is conservative since:

- ◆ The discount factor is selected as the highest average electricity import to export ratio, which is calculated according to the average import to export ratios over the entire monitoring period for 59 grouped projects that have complete electricity import/export data. This is consistent with the grouped projects which have adopted the discount factor to estimate the electricity import since the discount factor has been applied during the entire monitoring period in the emission reduction calculation spreadsheets.
- ◆ The ratio of 1.66% is conservative through cross-check with the “Hydroenergy Design Code for Small Hydropower Projects (SL76-94)"/19/ issued by Ministry of Water Resources of People's Republic of China, which indicates that the internal consumption for hydropower plants should be within range of 0.5%-1%. The verification team has listed the ratios of imported electricity to exported electricity of other projects in the following table for cross-check.

Statistic Monitoring Results of EG_{in}/EG_{out} within the Grouped Project

EG_{in}/EG_{out}	0%~0.5%	0.5%~1%	1%~1.66%
Total Project Number	43	13	3
Percent	72.9%	22.0%	5.1%

From the statistic monitoring results indicated in the table above, the verification team is able to confirm it is very unlikely the ratio of EG_{in}/EG_{out} crosses the selected discount factor within the Grouped Project considering the technical competences, operation and management experiences and hydro resources utilization are similar in the same region.

By applying the discount factor of 1.66%, the electricity imported from the grid has been conservatively determined for:

- ◆ Project No. 46, 50, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 94, 95, 96 and 98, of which all the electricity receipts only indicate the electricity exported during the whole monitoring period;
- ◆ Project No. 8, 9, 14, and 62, of which the electricity receipts only indicate the electricity exported for part of the monitoring period.

Furthermore, the verification team has confirmed the emission reductions of each grouped projects have been conservatively calculated in line with abovementioned *Formula 1&2* in the emission reduction calculation spreadsheets/3/. The total emission reductions within SCPG are the accumulated emission

reductions achieved by the grouped projects that are located in Yunnan Province (i.e. Project No. 90–98) and Guizhou Province (i.e. Project No. 70, 71, 73, 74, 75). The total emission reductions within CCPG are the accumulated emission reductions achieved by the grouped projects that are located in Chongqing City (i.e. Project No. 1–69 and 72) and Sichuan Province (i.e. Project No. 76–88). The total emission reductions within SCPG and CCPG have been summarized in the emission reduction calculation spreadsheets and checked to be correctly accounted.

Verified Emission Reductions within CCPG and SCPG

Year	ERs within CCPG (tCO ₂ e)	ERs within SCPG (tCO ₂ e)	ERs within CCPG and SCPG (tCO ₂ e)
2009	211,903	96,527	308,430
2010	419,793	138,038	557,831
2011	163,259	50,403	213,662
Total	794,955	284,968	1,079,923

Notes: The detailed ERs of each grouped project are listed in the Section 5 of this report.

By cross-check with the electricity sale receipts and electricity transaction receipts⁸, the verification team confirms that the monitoring results as listed in the Monitoring data summary and emission reductions calculation spread sheets/3/ dated on 22 May 2012 are conservative. The verification team confirms that the applied spreadsheet formulas and connections are correct and in line with the indicated emission reduction calculation in the monitoring plan as well as in the validated PD and the applied methodology/8/.

4.4 Management and Operational System

A central information system has been established for the Grouped Project in line with the monitoring report. The monitoring organization structure, quality assurance process and monitoring roles and responsibility have been implemented in accordance with the monitoring report. The central GHG information system has integrated four functional units: projects owners, Intermediary companies, South Pole's China team and Global Quality Control and Technical Support Team, where the coordination effectiveness has been verified during site assessment. South Pole Carbon Asset Management Ltd. is responsible for gathering and managing individual projects' information and their monitoring relevant documents by using their central information control tool (i.e. PMT software).

⁸ All the electricity receipts and electricity transaction receipts of each grouped project have been used for cross-check to determine the actual electricity imported and exported to the grid. The reference list of the electricity sales receipts and electricity transaction receipts for sampling projects has been listed in the Section 3.2 of this report.

The monitoring data and records will be archived in electronic documents and paper documents. The project owners will keep the copies of electricity generation records and sales receipts. Calibration of Meters & Metering has been implemented periodically according to DL/T448-2000/18/. After calibrated by qualified entity, the electricity metering equipment is sealed and stamped, which has been verified during onsite assessment. It was also confirmed during site assessment that all the staff involved in the grouped projects has received periodic training on operation and maintenance of the hydropower plant. The training records have been reviewed by the validation team to be valid.

In summary, the verification team has ensured that the quality management system for the Project is in place. The documented instructions including the responsibilities have been properly implemented and in line with the monitoring report and validated VCS PD/4/. The internal review being a regular practice ensures the quality assurance of the monitoring procedures.

5 VERIFICATION CONCLUSION

The verification team assigned by the VVB (TÜV Rheinland (China) Ltd) has performed a verification for the Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.China on the basis of VCS Version 3.2, as well as the criteria given to provide for consistent project operations, monitoring and reporting. The verification team concluded that the project as described in the VCS Monitoring Report (version 2.2, 19/06/2012), meets all relevant requirements of the above-defined criteria. The VVB therefore issue a positive verification opinion.

The verified emission reductions during the concerned monitoring period are displayed as follows:
Reporting period: From [14/06/2009] to [25/06/2011] Verified GHG emission reductions or removals in the above reporting period:

GHG Emission Reductions or Removals	tCO ₂ e
Baseline Emissions	1,079,923
Project Emissions	0
Leakage	0
Net GHG emission reductions or removals	1,079,923

The verified emission reductions of each grouped project are listed in the following table.

Project Title	Verified Emission Reductions
1 Zengfuyoujiang Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e

	Emission reductions within 2011:	0 tCO ₂ e
2 Jianshitan Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	
3 Jinxing Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-19 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 5151 tCO ₂ e Emission reductions: 5151 tCO ₂ e Emission reductions within 2009: 1190 tCO ₂ e Emission reductions within 2010: 2983 tCO ₂ e Emission reductions within 2011: 978 tCO ₂ e	
4 Huzhong Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-19 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 16461 tCO ₂ e Emission reductions: 16461 tCO ₂ e Emission reductions within 2009: 3145 tCO ₂ e Emission reductions within 2010: 9917 tCO ₂ e Emission reductions within 2011: 3399 tCO ₂ e	
5&6 Chongqing Wanzhou Fengmu & Longdong Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1612 tCO ₂ e Emission reductions: 1612 tCO ₂ e Emission reductions within 2009: 406 tCO ₂ e Emission reductions within 2010: 874 tCO ₂ e	

	Emission reductions within 2011:	332 tCO ₂ e
7 Chongqing Wanzhou Dengta Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1193 tCO ₂ e Emission reductions: 1193 tCO ₂ e Emission reductions within 2009: 315 tCO ₂ e Emission reductions within 2010: 652 tCO ₂ e Emission reductions within 2011: 226 tCO ₂ e	
8 Chongqing Wanzhou Mayuexi Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 771 tCO ₂ e Emission reductions: 771 tCO ₂ e Emission reductions within 2009: 200 tCO ₂ e Emission reductions within 2010: 413 tCO ₂ e Emission reductions within 2011: 158 tCO ₂ e	
9 Chongqing Wanzhou Xiaolong Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 2149 tCO ₂ e Emission reductions: 2149 tCO ₂ e Emission reductions within 2009: 543 tCO ₂ e Emission reductions within 2010: 1131 tCO ₂ e Emission reductions within 2011: 475 tCO ₂ e	
10 Chongqing Wanzhou Yihe Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1357 tCO ₂ e Emission reductions: 1357 tCO ₂ e	

	Emission reductions within 2009: 537 tCO ₂ e Emission reductions within 2010: 655 tCO ₂ e Emission reductions within 2011: 165 tCO ₂ e
11 Chongqing Wanzhou Tiande Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1762 tCO ₂ e Emission reductions: 1762 tCO ₂ e Emission reductions within 2009: 511 tCO ₂ e Emission reductions within 2010: 891 tCO ₂ e Emission reductions within 2011: 360 tCO ₂ e
12 Chongqing Wanzhou Puziling Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1457 tCO ₂ e Emission reductions: 1457 tCO ₂ e Emission reductions within 2009: 286 tCO ₂ e Emission reductions within 2010: 829 tCO ₂ e Emission reductions within 2011: 342 tCO ₂ e
13 Chongqing Wanzhou Yanshan Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 2392 tCO ₂ e Emission reductions: 2392 tCO ₂ e Emission reductions within 2009: 772 tCO ₂ e Emission reductions within 2010: 1173 tCO ₂ e Emission reductions within 2011: 447 tCO ₂ e
14 Chongqing Wanzhou Lianmeng Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e

	Baseline emissions: 1559 tCO₂e Emission reductions: 1559 tCO₂e Emission reductions within 2009: 503 tCO₂e Emission reductions within 2010: 713 tCO₂e Emission reductions within 2011: 343 tCO₂e
15 Chongqing Wanzhou Wanlin Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 2646 tCO₂e Emission reductions: 2646 tCO₂e Emission reductions within 2009: 900 tCO₂e Emission reductions within 2010: 1455 tCO₂e Emission reductions within 2011: 291 tCO₂e
16 Chongqing Wanzhou Gaodongzi Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
18 Chongqing Wanzhou Yanjingxi Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 2402 tCO₂e Emission reductions: 2402 tCO₂e Emission reductions within 2009: 515 tCO₂e Emission reductions within 2010: 1326 tCO₂e Emission reductions within 2011: 561 tCO₂e
20 Chongqing Wanzhou Dibao	Reporting period: 2009-06-26 to 2011-06-25

Hydroelectric Plant	Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 6444 tCO₂e Emission reductions: 6444 tCO₂e Emission reductions within 2009: 1740 tCO₂e Emission reductions within 2010: 3433 tCO₂e Emission reductions within 2011: 1271 tCO₂e
21 Chongqing Wanzhou Xianfeng Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 13879 tCO₂e Emission reductions: 13879 tCO₂e Emission reductions within 2009: 3541 tCO₂e Emission reductions within 2010: 7339 tCO₂e Emission reductions within 2011: 2999 tCO₂e
22&31 Heba & Chengmending Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 3689 tCO₂e Emission reductions: 3689 tCO₂e Emission reductions within 2009: 630 tCO₂e Emission reductions within 2010: 2253 tCO₂e Emission reductions within 2011: 806 tCO₂e
23 Sandaoguai Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 495 tCO₂e Emission reductions: 495 tCO₂e Emission reductions within 2009: 152 tCO₂e Emission reductions within 2010: 255 tCO₂e Emission reductions within 2011: 88 tCO₂e
24 Beiya Hydroelectric	Reporting period: 2009-06-26 to 2011-06-25

Plant	Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 723 tCO₂e Emission reductions: 723 tCO₂e Emission reductions within 2009: 134 tCO₂e Emission reductions within 2010: 448 tCO₂e Emission reductions within 2011: 141 tCO₂e
25 Wulong Guanqiao Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 674 tCO₂e Emission reductions: 674 tCO₂e Emission reductions within 2009: 113 tCO₂e Emission reductions within 2010: 361 tCO₂e Emission reductions within 2011: 200 tCO₂e
26&40&48 Xiangyang Stage II & III & I Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 7179 tCO₂e Emission reductions: 7179 tCO₂e Emission reductions within 2009: 1199 tCO₂e Emission reductions within 2010: 4654 tCO₂e Emission reductions within 2011: 1326 tCO₂e
27 Qingtongxi Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 1124 tCO₂e Emission reductions: 1124 tCO₂e Emission reductions within 2009: 189 tCO₂e Emission reductions within 2010: 623 tCO₂e Emission reductions within 2011: 312 tCO₂e
28 Heping Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25

	Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 1368 tCO₂e Emission reductions: 1368 tCO₂e Emission reductions within 2009: 272 tCO₂e Emission reductions within 2010: 879 tCO₂e Emission reductions within 2011: 217 tCO₂e
29 Guanziya Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
30 Baiyangping Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 888 tCO₂e Emission reductions: 888 tCO₂e Emission reductions within 2009: 159 tCO₂e Emission reductions within 2010: 565 tCO₂e Emission reductions within 2011: 164 tCO₂e
32 Shuanglong Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
33 Chushuitang Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e

	Baseline emissions: 2971 tCO₂e Emission reductions: 2971 tCO₂e Emission reductions within 2009: 889 tCO₂e Emission reductions within 2010: 1302 tCO₂e Emission reductions within 2011: 780 tCO₂e
34 Shuangqiao Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 1014 tCO₂e Emission reductions: 1014 tCO₂e Emission reductions within 2009: 94 tCO₂e Emission reductions within 2010: 645 tCO₂e Emission reductions within 2011: 275 tCO₂e
35 Shiqiao Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 1588 tCO₂e Emission reductions: 1588 tCO₂e Emission reductions within 2009: 355 tCO₂e Emission reductions within 2010: 975 tCO₂e Emission reductions within 2011: 258 tCO₂e
36 Shuanglian Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 531 tCO₂e Emission reductions: 531 tCO₂e Emission reductions within 2009: 121 tCO₂e Emission reductions within 2010: 240 tCO₂e Emission reductions within 2011: 170 tCO₂e
37 Baijia Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 656 tCO₂e Emission reductions: 656 tCO₂e

	Emission reductions within 2009: 211 tCO ₂ e Emission reductions within 2010: 319 tCO ₂ e Emission reductions within 2011: 126 tCO ₂ e
38 Xinqiao Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 742 tCO ₂ e Emission reductions: 742 tCO ₂ e Emission reductions within 2009: 204 tCO ₂ e Emission reductions within 2010: 310 tCO ₂ e Emission reductions within 2011: 228 tCO ₂ e
39 Luchi Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 152 tCO ₂ e Emission reductions: 152 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 152 tCO ₂ e
41 Xiangyun Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1856 tCO ₂ e Emission reductions: 1856 tCO ₂ e Emission reductions within 2009: 294 tCO ₂ e Emission reductions within 2010: 1139 tCO ₂ e Emission reductions within 2011: 423 tCO ₂ e
42 Hongshan Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1395 tCO ₂ e Emission reductions: 1395 tCO ₂ e Emission reductions within 2009: 224 tCO ₂ e Emission reductions within 2010: 897 tCO ₂ e

	Emission reductions within 2011:	274 tCO ₂ e
43 Leyuan Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 4578 tCO ₂ e Emission reductions: 4578 tCO ₂ e Emission reductions within 2009: 1023 tCO ₂ e Emission reductions within 2010: 2598 tCO ₂ e Emission reductions within 2011: 957 tCO ₂ e	
44 Yong'an Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 2600 tCO ₂ e Emission reductions: 2600 tCO ₂ e Emission reductions within 2009: 420 tCO ₂ e Emission reductions within 2010: 1651 tCO ₂ e Emission reductions within 2011: 529 tCO ₂ e	
45 Suokousi Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	
46 Xinli Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 1863 tCO ₂ e Emission reductions: 1863 tCO ₂ e Emission reductions within 2009: 455 tCO ₂ e Emission reductions within 2010: 974 tCO ₂ e Emission reductions within 2011: 434 tCO ₂ e	

47 Caijiagou Stage III Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 4166 tCO₂e Emission reductions: 4166 tCO₂e Emission reductions within 2009: 867 tCO₂e Emission reductions within 2010: 2591 tCO₂e Emission reductions within 2011: 708 tCO₂e
49 Cheqingyan Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 4955 tCO₂e Emission reductions: 4955 tCO₂e Emission reductions within 2009: 1052 tCO₂e Emission reductions within 2010: 2798 tCO₂e Emission reductions within 2011: 1105 tCO₂e
50 Lianghekou Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-14 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 612 tCO₂e Emission reductions: 612 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 238 tCO₂e Emission reductions within 2011: 374 tCO₂e
51 Wuhe Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 1544 tCO₂e Emission reductions: 1544 tCO₂e Emission reductions within 2009: 332 tCO₂e Emission reductions within 2010: 809 tCO₂e Emission reductions within 2011: 403 tCO₂e
52 Sihe Hydroelectric	Reporting period: 2009-06-26 to 2011-06-25

Plant	Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 4281 tCO₂e Emission reductions: 4281 tCO₂e Emission reductions within 2009: 919 tCO₂e Emission reductions within 2010: 2318 tCO₂e Emission reductions within 2011: 1044 tCO₂e
53 Shilingyan Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
54 Nanmu Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 4635 tCO₂e Emission reductions: 4635 tCO₂e Emission reductions within 2009: 580 tCO₂e Emission reductions within 2010: 2596 tCO₂e Emission reductions within 2011: 1459 tCO₂e
55 Canglong Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 5827 tCO₂e Emission reductions: 5827 tCO₂e Emission reductions within 2009: 1283 tCO₂e Emission reductions within 2010: 3503 tCO₂e Emission reductions within 2011: 1041 tCO₂e
56 Daheba Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period:

	Project emissions: 0 tCO ₂ e Baseline emissions: 7091 tCO ₂ e Emission reductions: 7091 tCO ₂ e Emission reductions within 2009: 1460 tCO ₂ e Emission reductions within 2010: 4197 tCO ₂ e Emission reductions within 2011: 1434 tCO ₂ e
57 Heixigou Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 8792 tCO ₂ e Emission reductions: 8792 tCO ₂ e Emission reductions within 2009: 2372 tCO ₂ e Emission reductions within 2010: 4609 tCO ₂ e Emission reductions within 2011: 1811 tCO ₂ e
58 Yanchanghe Stage III Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 6404 tCO ₂ e Emission reductions: 6404 tCO ₂ e Emission reductions within 2009: 1517 tCO ₂ e Emission reductions within 2010: 3329 tCO ₂ e Emission reductions within 2011: 1558 tCO ₂ e
59 Muzonghe Stage IV Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 9822 tCO ₂ e Emission reductions: 9822 tCO ₂ e Emission reductions within 2009: 2472 tCO ₂ e Emission reductions within 2010: 4888 tCO ₂ e Emission reductions within 2011: 2462 tCO ₂ e
60 Dengta Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e

	Baseline emissions: 3450 tCO₂e Emission reductions: 3450 tCO₂e Emission reductions within 2009: 762 tCO₂e Emission reductions within 2010: 2074 tCO₂e Emission reductions within 2011: 614 tCO₂e
61 Banqiao Stage II Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
62 Shuangchahe Hydroelectric Plant	Reporting period: 2009-06-15 to 2011-06-14 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 8947 tCO₂e Emission reductions: 8947 tCO₂e Emission reductions within 2009: 1777 tCO₂e Emission reductions within 2010: 5370 tCO₂e Emission reductions within 2011: 1800 tCO₂e
63 Songshigou Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 3212 tCO₂e Emission reductions: 3212 tCO₂e Emission reductions within 2009: 704 tCO₂e Emission reductions within 2010: 1583 tCO₂e Emission reductions within 2011: 925 tCO₂e
64 Banqiao Stage III Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 14053 tCO₂e Emission reductions: 14053 tCO₂e

	Emission reductions within 2009: 2592 tCO ₂ e Emission reductions within 2010: 8398 tCO ₂ e Emission reductions within 2011: 3063 tCO ₂ e
65 Shujiahe Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 6643 tCO ₂ e Emission reductions: 6643 tCO ₂ e Emission reductions within 2009: 1225 tCO ₂ e Emission reductions within 2010: 4074 tCO ₂ e Emission reductions within 2011: 1344 tCO ₂ e
66 Yangyan Hydroelectric Plant	Reporting period: 2009-06-14 to 2011-06-13 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 7858 tCO ₂ e Emission reductions: 7858 tCO ₂ e Emission reductions within 2009: 2724 tCO ₂ e Emission reductions within 2010: 4619 tCO ₂ e Emission reductions within 2011: 515 tCO ₂ e
67 Baiguo Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 14616 tCO ₂ e Emission reductions: 14616 tCO ₂ e Emission reductions within 2009: 3491 tCO ₂ e Emission reductions within 2010: 7528 tCO ₂ e Emission reductions within 2011: 3597 tCO ₂ e
68 Longqiao Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 22744 tCO ₂ e Emission reductions: 22744 tCO ₂ e Emission reductions within 2009: 5547 tCO ₂ e Emission reductions within 2010: 14037 tCO ₂ e

	Emission reductions within 2011:	3160 tCO ₂ e
69 Baiyang Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 21988 tCO ₂ e Emission reductions: 21988 tCO ₂ e Emission reductions within 2009: 4247 tCO ₂ e Emission reductions within 2010: 12690 tCO ₂ e Emission reductions within 2011: 5051 tCO ₂ e	
70 Xinmin Tailwater Stage II Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	
71 Dongliuhe Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	
72 Dahegou Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	

73 Xinmin Stage II Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
74 Guizhou Province Xingyi City Puti Hydropower Plant Technical Reform Project	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
75 Guizhou Province Xingyi City Puti 2nd Stage (Xiniutang) Hydropower Plant Technical Reform Project	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
76 Wumaxi Stage II Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period:

	Project emissions: 0 tCO ₂ e Baseline emissions: 6398 tCO ₂ e Emission reductions: 6398 tCO ₂ e Emission reductions within 2009: 1975 tCO ₂ e Emission reductions within 2010: 3169 tCO ₂ e Emission reductions within 2011: 1254 tCO ₂ e
77 Mozigou Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 6319 tCO ₂ e Emission reductions: 6319 tCO ₂ e Emission reductions within 2009: 2249 tCO ₂ e Emission reductions within 2010: 3023 tCO ₂ e Emission reductions within 2011: 1047 tCO ₂ e
78 Mayihe Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 13613 tCO ₂ e Emission reductions: 13613 tCO ₂ e Emission reductions within 2009: 3970 tCO ₂ e Emission reductions within 2010: 6914 tCO ₂ e Emission reductions within 2011: 2729 tCO ₂ e
79 Jinyatan Hydroelectric Plant	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e
80 Toudaoshui Hydroelectric Station	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e

	Baseline emissions: 19449 tCO₂e Emission reductions: 19449 tCO₂e Emission reductions within 2009: 3147 tCO₂e Emission reductions within 2010: 12491 tCO₂e Emission reductions within 2011: 3811 tCO₂e
81 Sanhui Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 33164 tCO₂e Emission reductions: 33164 tCO₂e Emission reductions within 2009: 11781 tCO₂e Emission reductions within 2010: 16368 tCO₂e Emission reductions within 2011: 5015 tCO₂e
82 Yunwushan Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 40584 tCO₂e Emission reductions: 40584 tCO₂e Emission reductions within 2009: 13055 tCO₂e Emission reductions within 2010: 18580 tCO₂e Emission reductions within 2011: 8949 tCO₂e
83 Gongjiagou Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 83556 tCO₂e Emission reductions: 83556 tCO₂e Emission reductions within 2009: 22389 tCO₂e Emission reductions within 2010: 44106 tCO₂e Emission reductions within 2011: 17061 tCO₂e
84 Chahe Stage III Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 52757 tCO₂e Emission reductions: 52757 tCO₂e

	Emission reductions within 2009: 15777 tCO ₂ e Emission reductions within 2010: 26732 tCO ₂ e Emission reductions within 2011: 10248 tCO ₂ e
85 Daihuanggou Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 56826 tCO ₂ e Emission reductions: 56826 tCO ₂ e Emission reductions within 2009: 18773 tCO ₂ e Emission reductions within 2010: 26496 tCO ₂ e Emission reductions within 2011: 11557 tCO ₂ e
86 Gaoqiaohe Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 107686 tCO ₂ e Emission reductions: 107686 tCO ₂ e Emission reductions within 2009: 32228 tCO ₂ e Emission reductions within 2010: 53943 tCO ₂ e Emission reductions within 2011: 21515 tCO ₂ e
87 Zhuyeshan Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 17338 tCO ₂ e Emission reductions: 17338 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 11353 tCO ₂ e Emission reductions within 2011: 5985 tCO ₂ e
88 Lianghekou Hydroelectric Plant	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 98304 tCO ₂ e Emission reductions: 98304 tCO ₂ e Emission reductions within 2009: 28394 tCO ₂ e Emission reductions within 2010: 49497 tCO ₂ e

	Emission reductions within 2011:	20413 tCO ₂ e
90 Dabaishu Hydroelectric Plant	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 29146 tCO ₂ e Emission reductions: 29146 tCO ₂ e Emission reductions within 2009: 9023 tCO ₂ e Emission reductions within 2010: 13645 tCO ₂ e Emission reductions within 2011: 6478 tCO ₂ e	
91 Dashi Stage III Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 21547 tCO ₂ e Emission reductions: 21547 tCO ₂ e Emission reductions within 2009: 6990 tCO ₂ e Emission reductions within 2010: 10147 tCO ₂ e Emission reductions within 2011: 4410 tCO ₂ e	
92 Dashi Stage II Hydroelectric Plant	Reporting period: 2009-06-16 to 2011-06-15 Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 26980 tCO ₂ e Emission reductions: 26980 tCO ₂ e Emission reductions within 2009: 8756 tCO ₂ e Emission reductions within 2010: 12503 tCO ₂ e Emission reductions within 2011: 5721 tCO ₂ e	
93 Yunnan Midu County Taishanhe Hydropower Station	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO ₂ e Baseline emissions: 0 tCO ₂ e Emission reductions: 0 tCO ₂ e Emission reductions within 2009: 0 tCO ₂ e Emission reductions within 2010: 0 tCO ₂ e Emission reductions within 2011: 0 tCO ₂ e	

94 Zhenyuan County Xiaojiehe Hydropower Station	Reporting period: 2009-06-26 to 2011-06-25 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 22910 tCO₂e Emission reductions: 22910 tCO₂e Emission reductions within 2009: 9283 tCO₂e Emission reductions within 2010: 11809 tCO₂e Emission reductions within 2011: 1818 tCO₂e
95 Jinghong City Chuangye Hydropower Station	Reporting period: 2009-06-21 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 51761 tCO₂e Emission reductions: 51761 tCO₂e Emission reductions within 2009: 21056 tCO₂e Emission reductions within 2010: 22877 tCO₂e Emission reductions within 2011: 7828 tCO₂e
96 Yingjiang Husa River 5th Stage Hydropower Plant	Reporting period: 2009-06-26 to 2011-06-10 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 58662 tCO₂e Emission reductions: 58662 tCO₂e Emission reductions within 2009: 23204 tCO₂e Emission reductions within 2010: 27336 tCO₂e Emission reductions within 2011: 8122 tCO₂e
97 Yunnan Province Jinping County Mengqiao Village Datan Hydropower Station	Reporting period: N/A Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 0 tCO₂e

	Emission reductions: 0 tCO₂e Emission reductions within 2009: 0 tCO₂e Emission reductions within 2010: 0 tCO₂e Emission reductions within 2011: 0 tCO₂e
98 Fugong County Lishadi Hydropower Plant Project	Reporting period: 2009-06-26 to 2011-06-20 Verified emission in the above reporting period: Project emissions: 0 tCO₂e Baseline emissions: 73962 tCO₂e Emission reductions: 73962 tCO₂e Emission reductions within 2009: 18215 tCO₂e Emission reductions within 2010: 39721 tCO₂e Emission reductions within 2011: 16026 tCO₂e

Abbreviations

ACM	Approved Consolidated Methodology
AFOLU	Agriculture, Forestry and Other Land Use
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CL	Clarification Request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CCPG	Central China Power Grid
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
EIA	Environmental Impact Assessment
ER	Emission Reductions
FSR	Feasibility Study Report
GHG	Greenhouse Gas(es)
GWh	Giga Watt Hours
GWP	Global Warming Potential
I	Interview
IETA	International Emission Trading Association
IPCC	Intergovernmental Panel on Climate Change
kW	Kilo Watt
kWh	Kilo Watt Hours
LoA	Letter of Approval
MP	Monitoring Plan
MWR	China Ministry of Water Resources
MWh	Mega Watt Hours
NCV	Net Calorific Value
NDRC	National Development and Reform Commission of China
NGO	Non-governmental Organization
ODA	Official Development Fund
OM	Operating Margin
PD	Project Description
PDR	Preliminary Design Report
PP	Project Participants
SCPG	Southern China Power Grid
SEPA	State Environmental Protection Administration of China
SHP	Small Hydropower Project
t	Tonne
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added Tax
VCS	Voluntary Carbon Standard
VCU	Voluntary Carbon Unit
VVB	Validation and Verification Body