

PoA Title	Programme for SSC Hydropower Plants in rural areas
Real Case CPA Title	Programme for SSC Hydropower Plants in rural areas, CPA # 1
ERM CVS Project Reference	2350.V1
Client Name	Zhongtannengtou Tech Co., Ltd.
Client Address	39 Court No.6 Building, East Third Ring Road, Beijing, P.R.China

CDM Validation Report

ERM Certification and Verification Services

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Version 1.0	22 August 2012 (draft report)
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Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CH ₄	Methane
CL	Clarification request
CME	Coordinating/Managing Entity
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COP	Conference of the Parties
CPA	CDM Project Activity
CPA-DD	CPA Design Document
DNA	Designated National Authority
FAR	Forward Action Request
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
FSR	Feasibility Study Report
GHG	Greenhouse Gas
GSP	Global Stakeholder Process
GWP	Global Warming Potential
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
LoA	Letter of approval
MOP	Meeting of the Parties
MP	Monitoring Plan
MW/MWh	Mega Watt/Mega Watt hour
NCV	Net Calorific Value
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OM	Operating Margin
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PPA	Power Purchase Agreement
SCE	Standard coal equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added tax
VVS	CDM Validation and Verification Standard

Project/Party specific abbreviations

CCPG	Central China Power Grid
NWCPG	Northwest Power China Grid
CSPG	China South Power Grid
ZTC	Zhongtannengtou Tech Co., Ltd.
NDRC	National Development and Reform Committee
PD	Power Density
PPA	Power Purchasing Agreement
PDR	Preliminary Design Report

1 PoA Information

1.1 Key information

PoA Title	Programme for SSC Hydropower Plants in rural areas
PoA Location(s)	Sichuan Province of China
Host Party(ies)	China
Other Party(ies)	N/A
Coordinating/Managing Entity	Zhongtannengtou Tech Co., Ltd.
Project participants	Zhongtannengtou Tech Co., Ltd. Department of Climate Change, National Development & Reform Commission of China

Methodology(ies) used	AMS-I.D.: Grid connected renewable electricity generation, Version 17, EB 61
Methodological tool(s) used	Tool to calculate the emission factor for an electricity system (version 02.2.1); Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, Version 02.1, EB70
Sectoral Scope(s) (as per http://cdm.unfccc.int/DOE/scopes.html)	1 Energy industries (renewable - / non-renewable sources)


PoA Design Document GSP Version	Date: 04 June 2012	PoA Design Document Final Version	Date: 14 November 2012
	Version Number: 1.0		Version Number: 2.0

Starting date of the PoA	11 June 2012
Duration of the PoA	28 years

Date(s) of validation site visit	14 June 2012
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2 Summary and Validation Opinion

PoA Title	Programme for SSC Hydropower Plants in rural areas
Name of Client	Zhongtannengtou Tech Co., Ltd.
Basis of validation	<p>ERM CVS based its validation work on:</p> <ul style="list-style-type: none"> • CDM approved monitoring methodology(ies) AMS-I.D.: Grid connected renewable electricity generation, Version 17, EB 61 • CDM Validation and Verification Standard (version 03.0) • ERM CVS's internal CDM validation methodologies and protocols • CDM decisions and guidance issued by the CDM Executive Board on the Programmes of Activities • UNFCCC criteria for the Clean Development Mechanism • Host Country criteria for the Clean Development Mechanism
Responsibilities of ERM CVS	ERM CVS is responsible to provide a thorough independent third party assessment of the proposed CDM programme of activities (PoA) to ensure that the proposed CDM PoA meets all the identified and applicable criteria for registration of PoA under the CDM.
Responsibilities of Project participants	The CME is responsible for preparing the PoA-DD, generic CPA-DD, real case CPA-DD, supporting documentation and providing all necessary evidences to support the information included in the PoA-DD, generic CPA-DD and real case CPA-DD.
Activities performed	<p>ERM CVS conducted its activities in accordance with the CDM Validation and Verification Standard. The validation consisted of a review of project documentation, site visits, interviews with relevant personnel, cross checking information through other reliable sources and reporting. Validation work was based on a validation protocol that sets out relevant CDM requirements. Where necessary, Clarification Requests and Corrective Action Requests were raised and closed out with the CME. The validation work was subject to detailed Technical Review and assessment prior to submission.</p> <p>No component of the PoA was excluded from the validation.</p>
ERM CVS Conclusion	<p>ERM Certification and Verification Services (ERM CVS) has performed the validation of the PoA against the criteria for the Clean Development Mechanism as set out by the Conference of the Parties and the UNFCCC CDM Executive Board, and host country criteria. The validation employed standard auditing techniques, and addressed the requirements of the CDM Validation and Verification Standard.</p> <p>The Parties involved in the project fulfil the criteria for participation in the CDM, and have issued a letter of approval (LoA) for the project and authorised the Project participants. The LoA(s) of the host Party(ies) confirms the contribution of the PoA towards sustainable development.</p> <p>The validation has provided sufficient evidence to demonstrate that the PoA is not the baseline scenario, and that emission reductions would be additional to what would have taken place in the absence of the CDM project activity. Eligibility criteria are included that comply with the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities' and ensure that CPAs can be appropriately included in the PoA.</p> <p>The PoA (and its typical CPA) meets the applicability criteria and correctly applies methodology AMS-I.D.: Grid connected renewable electricity generation, Version 17, EB 61, and is therefore expected to result in real, measurable and long term reductions in greenhouse gas emissions.</p> <p>The monitoring plan provides for the collection and archiving of data sufficient to ensure that emission reductions can be verified at CPA level.</p> <p>In summary, it is the opinion of ERM CVS that the PoA as described in the PoA-DD Version 2.0 of 14</p>

	<p>November 2012, meets all stated criteria of the CDM, correctly applies the methodology, and is expected to result in real, measurable and long term emission reductions.</p> <p>ERM CVS therefore requests the CDM Executive Board approves registration of the PoA.</p>
Signed on behalf of ERM CVS	 A handwritten signature in black ink, appearing to read "Mel Eddis".
Name:	Melanie Eddis
Date:	16 November 2012

3 Introduction

3.1 Validation Objectives

The purpose of validation is to ensure a thorough, independent assessment of activities submitted for registration as a proposed CDM Programme of Activities (PoA) against the applicable CDM requirements.

The DOE is responsible for reporting the results of its assessment in a validation report and submitting this validation report, along with the supporting documents to the CDM Executive Board as part of the request for registration of a proposed CDM PoA.

The DOE also presents its opinion on the compliance of the proposed CDM PoA with the applicable CDM requirements, and only requests registration if this is a positive opinion.

In the course of validation, ERM CVS assesses additionality of the PoA; eligibility criteria for inclusion of a proposed CPA in the registered PoA; operational and management arrangements established by the coordinating/management entity (CME) for the implementation of the PoA; applicability of an approved CDM methodology; monitoring plan (MP); Compliance with the relevant host country criteria; and Consistency between CDM-POA-DD and the PoA generic CDM-CPA-DD to be used for inclusion of a CPA in the registered PoA.

3.1.1 Validation Criteria

ERM CVS applies the following principles in performing its validation:

- Consistency
- Transparency
- Impartiality, independence and safeguarding against conflicts of interest
- Confidentiality

In all aspects of its work, ERM CVS ensures that the information and data reported are accurate, conservative, relevant, credible, reliable and complete.

3.2 Scope

The validation scope addresses the Programme of Activities as described in the Programme of Activities design document (PoA-DD)/01/, generic CDM Project Activity design document (generic CPA-DD)/02/, real case CDM Project Activity design document (real case CPA-DD) and associated documentation. The PoA-DD, generic CPA-DD, real case CPA-DD and associated documentation are reviewed against the criteria and requirements stated in the CDM Validation and Verification Standard (VVS)/08/ and Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords, as well as relevant decisions made by the CDM Executive Board.

The validation scope also included an assessment of completeness and accuracy of documentation, evaluation of evidences, information and assumptions made in the PoA-DD, generic CPA-DD, real case CPA-DD and supporting documentation. Findings of the validation of the real-case CPA are described in a separate CPA validation report.

3.3 Contract Review

Prior to contracting with the client, a full review of the project and the validation requirements was made. This addressed both commercial risk and project risks associated with conducting the validation activities and confirmed the availability of an appropriately qualified team to conduct the validation.

3.4 Validation Personnel

Based on ERM CVS's review of the PoA, a validation team was established that takes into account the coverage of the technical area(s), sectoral scope(s) and relevant host country experience.

Personnel who were involved in the validation of this PoA were:

Validation Team

Name	Role	CDM Requirements	Technical area	Financial Expertise	Participated in site visit?
Dong Nan	Team Leader	Yes	Fully Competent	No	Yes
Han Lei	Assessor under Training	No	Partially Competent	No	Yes
Zhang Fan(Eva)	Assessor under Observation	Yes	Partially Competent	No	Yes
Neringa Pumputyte	Support Validator	Yes	Yes	No	No

DOE Head Office

Name	Role	CDM Requirements	Knowledge relevant to the technical area
Jonathan Avis	Technical Reviewer	Full	yes

3.5 Summary of CVs of the validation personnel

Dong Nan is a Lead Auditor based in Beijing with experience in the validation and verification of more than 80 CDM projects, including wind power, hydro power and energy efficiency projects. He holds a Master's Degree in Environmental Science and Engineering and has practical experience in the fields of environmental impact assessment for both of projects and planning (nuclear power plant, railway, urban planning), planning and design of urban wastewater treatment, urban water supply and urban solid waste treatment, and environmental management, resource conservation and cleaner production in various industries. He also received training in Emission reduction monitoring and Financial analysis. He is fully competent as a lead validator and verifier in scope of wind power and has extensive wind power experience.

Han Lei is a GHG Auditor based in Beijing office. He holds a Master Degree in Chemical Engineering, having an overall experience of 6 years. Prior to working as GHG Auditor, he has 3 years on-site experience in waste heat recovery and reuse of waste and by-products in chemical processes and biomass power, including energy efficiency analysis, recycling design of waste and biomass residues. He also has three years' experience in validation and verification of more than 10 CDM projects including wind power, hydropower, natural gas combined cycle and PV power generation projects. His qualification, industrial and CDM experience demonstrates his sufficient competence in "Chemical Industries" and "Renewable and Non-Renewable Energy" projects.

Zhang Fan(Eva) is an auditor based in Beijing. She received comprehensive training of CDM, has more than 3.5 years' experience in CDM project development and has participated in more than 40 CDM projects, including wind power, hydro power, biomass, waste heat recovery and energy efficiency projects. She has worked at all the stages in the process of CDM project, including validation and verification.

Neringa Pumputyte has been working in CDM for the past 5 years, initially as a consultant and project developer and now as a client account manager and assessor. Neringa has completed 2 validations as an assessor in LFG and fugitive emissions (oil and gas) and a verification in demand-side energy efficiency, and is working on validation of three PoAs. Neringa has worked with a project developer on hydro and cook stove projects as well as numerous waste handling projects. Neringa has completed the ERM CVS CDM training, as well as gold standard general and methodology training. Neringa holds a BSc and MSc in Geography from Vilnius University, and an MSc in Environmental Change and Management from the University of Oxford.

Jonathan Avis is CDM Business Manager for ERM CVS, and a GHG Assessor and Technical Reviewer with over 6 years' experience in the CDM. Since joining ERM CVS Jonathan has worked as a Technical Reviewer or GHG Assessor on more than 30 CDM validations in Renewable Energy (scope 1), more than 10 CDM validations in Manufacturing Industries (scope 04), 6 CDM validations in Mining (scope 8), and 5 CDM validations in Waste Handling and Disposal (scope 13). Jonathan's previous

work experience involved screening and due diligence of carbon projects, Project Design Document (POA-DD) development, quality assurance and technical review of CDM project documentation, the development of carbon monitoring plans, and management of carbon projects through the validation, registration and verification stages. Jonathan has completed the ERM CVS CDM training as well as the GHGMI Renewable Energy training and Gold Standard training. Jonathan holds a BA in Geography and an MSc in Environmental Change and Management from the University of Oxford.

4 Validation Approach

In carrying out its validation work, ERM CVS has:

- (a) Determined whether the proposed PoA complies with the requirements of paragraph 37 of the CDM Modalities and Procedures (M&Ps), the applicability conditions of the selected methodology and guidance issued by the Board;
- (b) Assessed the claims and assumptions made in the PoA Design Document (PoA-DD)/01/. The evidence used in this assessment has not been limited to that provided by the project participants.

The validation was carried out in accordance with the most recent version of the VVS and relevant EB standards and guidance for PoAs. The validation process employed standard auditing techniques and undertook necessary cross-checks and follow-up actions to ascertain the correctness of the information. The validation team included staff with experience in the relevant technical areas within the sectoral scope, and included local host country expertise, sectoral knowledge, and financial expertise. The validation report and associated documents have undergone a thorough technical review by ERM CVS before being submitted to the CDM Executive Board for registration. The validation consisted of the following key stages:

- Upload of the PoA-DD and real case CPA-DD for Global Stakeholder Process (GSP), receipt of any comments from stakeholders
- Review of documentation including PoA-DD and real case CPA-DD applied to the first CPA, methodology and key supporting documents and references
- A site visit including Interviews with personnel responsible for developing the PoA and first CPA and a site visit to the first CPA.
- Development of a draft validation report, identifying non-compliances including Corrective Action Requests (CARs) and Clarification Requests (CLs), taking into account findings of the GSP, desk review and site visit / interviews
- Resolution of outstanding issues (CARs and CLs) and development of a final validation report and validation opinion
- Independent technical review and report approval

4.1 Global Stakeholder Process

At the start of the validation, in accordance with the latest version of the “Procedures for processing and reporting on validation CDM project activities”, the unvalidated PoA-DD and real case CPA-DD supplied by the client were uploaded on the UNFCCC website to be available for global stakeholder review. The GSP period was from 11 June 2012--10 July 2012

No comments were received.

4.2 Document Review

A detailed document review of the PoA-DD, real case CPA-DD, methodology and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the site visit. The document review includes:

- A review of data and information to verify the correctness, credibility and interpretation of presented information;
- Cross checks between information provided in the PoA-DD and real case CPA-DD and information from other sources, not limited to those provided by the PPs

Where the review of the PoA-DD or real case CPA-DD at the document review stage raised issues, these were further reviewed and validated through supporting documentation and cross-checking from other sources and interviewing relevant personnel involved in the PoA and real case CPA during the site visit. During the document review the project team also compared the proposed PoA with available information relating to projects or technologies similar to the proposed CDM PoA under validation. Where appropriate, the validation team assessed the appropriateness of formulae and the correctness of calculations presented by the CME. A list of all documents reviewed or referred to in the course of this validation is included in Appendix A.

4.3 Site visit and Interviews

The site visit included a tour of the real case CPA project site, which is described in a separate CPA validation report, and interviews with the CME.

Site visits and interviews provide additional and background to the PoA as well as cross checks with other documentation. Interviews were undertaken with relevant stakeholders in the host country, as well as personnel with knowledge of the PoA design and implementation. A list of interviewees, and the main topics discussed with each person can be found in appendix A.

The site visit was designed to enable the validation team to

- undertake a detailed review of additional documentation and verify the supporting documentation;
- assess the validity of the boundary, both of the PoA and CPAs;
- cross-check the validity of the information contained in the POA-DD and real case CPA-DD with other sources of information; and
- interview relevant stakeholders involved in the PoA and real case CPA as required.

4.4 Preparation of Draft Validation Report

Based on the findings of the desk review and site visit, ERM CVS prepared a draft validation report including a list of CARs and CLs, and provided this to the PPs. Where issues are identified that need to be further elaborated, researched or added to in order to confirm that the PoA meets the CDM requirements and can achieve credible emission reductions, ERM CVS identified these issues in the DVR so that they could be discussed with the PPs and concluded upon in the final validation report (FVR).

4.4.1 Remediation requests

Based on the findings of the desk review and site visit, ERM CVS prepared a draft validation report including a list of CARs and CLs, and provided this to the PPs. Where issues are identified that need to be further elaborated, researched or added to in order to confirm that the PoA meets the CDM requirements and can achieve credible emission reductions, ERM CVS identified these issues in the DVR so that they could be discussed with the PPs and concluded upon in the final validation report (FVR).

4.4.2 Remediation requests

Where issues were identified, ERM CVS raised one of the following remediation requests:

Clarification Request (CL): where information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Corrective Action Request (CAR): where:

- Mistakes have been made that will influence the ability of the PoA to achieve real, measurable additional emission reductions;
- The CDM requirements have not been met; or
- There is a risk that emission reductions cannot be monitored or calculated.

Forward Action Requests (FAR): where it was necessary to highlight issues related to project implementation that require review during the first verification of the PoA. FARs shall not relate to the CDM requirements for registration.

CARs and CLs must be 'closed out' before the validation can be concluded. Close out is only possible where the PPs modify the project design, rectify the PoA-DD or provide adequate additional explanation or evidence that satisfies ERM CVS's concerns. The validation process may be halted until the CARs and CLs are addressed to the validation team's satisfaction.

4.5 Final Validation Report and Validation Opinion

The final validation report (FVR) is completed when the CARs and CLs have been closed out to the satisfaction of ERM CVS. The FVR includes the validation opinion that sets out the validation conclusion regarding the compliance of the POA with CDM requirements. Validation of the real-case CPA is reported in a separate CPA validation report.

4.6 Internal Quality Control

The process of validation and decision of the validation team has been subject to an independent Technical Review. The scope of the Technical Review process is to independently assess that all procedures have been followed, necessary requirements have been met, and all conclusions are justified. The final validation decision is based on the findings and conclusions of the validation team, assessing the compliance of the PoA with the CDM requirements, and the technical evaluation of the independent technical reviewer. The final report is then reviewed and approved by the qualified signatory / final decision maker within ERM CVS.

5 Validation findings – Approval & Participation, Authorisation, Contribution to Sustainable Development, and Modalities of Communication

5.1 Approval & Participation

As per VVS /08/ section 8.4, ERM CVS assessed whether the DNA of each Party indicated as being involved in the PoA has provided an appropriate letter of approval (LoA).

	ERM CVS has confirmed that the LoA has been issued and provides confirmation of:			
Party	Ratified Kyoto Protocol?	Voluntary Participation	Contribution to Sustainable Development	Exact project title
China (Host Party)	Yes	Yes	Yes	Yes

ERM CVS received the LoAs from the PP. The authenticity has been confirmed by checking the list of approved projects on the website of the China DNA /19/.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.1.1	Are LoAs in place for every host country, covering all PPs, that confirm <ul style="list-style-type: none"> ▪ Ratification of the Kyoto Protocol ▪ Voluntary Participation ▪ Reference to the precise title in the PoA-DD ▪ Contribution to sustainable development (host party only) 	<p>CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed.</p> <p>This is a unilateral project, thus only have host country LoA.</p> <p>The Host Party LoA /03/ confirms that:</p> <ul style="list-style-type: none"> ● China is a Party to the Kyoto Protocol; ● Approves the participation of the Zhongtannengtou Tech Co., Ltd. in the PoA as the CME; ● States that the project would contribute to sustainable development; and ● Refers to the PoA using the project title in the PoA-DD. <p>The host party LoA /03/ was reviewed and confirms that China ratified the Kyoto protocol on 30 August 2002, confirms voluntary participation in the proposed project, references the precise project title as written in the PoA-DD, and confirms the contribution of the project to the sustainable development of the host party.</p>	CAR-1	OK
5.1.2	Is the information in the LoAs consistent with the other project documentation, including PP names, etc	<p>The information in the LoA /03/ is consistent with the PoA-DD as well as the MoC /04/.</p> <p>Hence, CAR 1 is closed.</p>	CAR-1	OK

ERM CVS also reviewed whether the LoAs contain any additional specifications:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.1.3	Does any LoA contain additional specification or conditions of the PoA? If so, are these conditions fully complied with?	<p>CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed. Please refer to Appendix B for details.</p> <p>The LoA /03/ was provided by the PP, and reviewed.</p> <p>The LoA from NRDC /03/ states that the total CERs generated from the 1st CPA (Title: Programme for SSC Hydropower Plants in rural areas, CPA#1) of the PoA would be totally transferred to China's national account. Other CPAs and the</p>	CAR-1	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
		transfer of emission reductions from them should be approved separately. According to Article 37 of the revised version of the Measures for Operation and Management of Clean Development Mechanism Projects in China, issued on 03 Aug 2011 /20/ any trade of carbon credits generated post 2012 of an approved project activity should be approved separately by NDRC. Since the CPA#1 will start operation after 01 January 2013 and the transfer of emission reductions from them should be approved separately for this unilateral project, this condition will be fully complied with.		
5.1.4	If any LoA references a specific version of the Validation Report and this version cannot be submitted, then has either of the following been submitted? <ul style="list-style-type: none"> a statement indicating final LoA has not been received or an updated Validation Report 	Please refer to CAR 1. The LoA /03/ does not reference a specific version of the validation report. CAR 1 is closed. Please refer to Appendix B to this report.	CAR 1	OK

Conclusion

ERM CVS confirmed that LoA has been received from all parties involved in the project.

ERM CVS's validation of the approval status of the project activity confirmed that:

- Each Party is a Party to the Kyoto Protocol
- Participation is voluntary
- In the case of the Host Party, the project activity contributes to the sustainable development of the country
- The title of the project activity is identical in the LoA and the PoA-DD and real case CPA-DD.

ERM CVS therefore confirms that the LoA are in accordance with paragraphs of the VVS.

5.2 Authorisation

As per VVS section 8.4, ERM CVS evaluated whether all PPs are listed in a consistent manner in section A.4 of the PoA-DD and have been appropriately authorised by a Party to the Kyoto Protocol. ERM CVS also checked the consistency of information between the PoA-DD, Letters of Approval (LoA) and the Modalities of Communication (MoC).

PPs (list all)	Is the PP listed in Section A.4 of POA-DD?	Are contact details given in Annex 1 of POA-DD?	Does the LoA name the authorised PP?	Is information in the MoC consistent with POA-DD and LoA?
Zhongtannengtou Tech Co., Ltd.	Yes	Yes	Yes	Yes
Department of Climate Change, National Development & Reform Commission of China	Yes	Yes	Yes	Yes

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.2.1	Is the correct information provided on PPs, and consistently applied in section A and Appendix 1 of the PoA-DD and other project documentation (Letters of Approval and Modalities of Communication)?	CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed. Please refer to Appendix B for details. The PPs are listed in a consistent manner in the PoA-DD and all related project documentation, including the LoA /03/ and Modalities of Communication /04/.	CAR-1	OK
	Can it be confirmed that there are no entities other than those approved as PPs included in section A or Annex 1 of the PoA-DD.	CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed. Please refer to Appendix B for details.. There are no entities other than those included as PPs in section A or Annex 1 of the PoA-DD.	CAR-1	OK
	Does the host party wish to be considered a Project Participant? If so, is this correctly presented in the PoA-DD?	CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed. Please refer to Appendix B for details Yes. The host party wish to be considered a Project Participant /03/, which has been correctly presented in the PoA-DD /01/.	CAR-1	OK

Conclusion

All PPs to the project activity have been authorised by a party to the Kyoto Protocol, and ERM CVS has reviewed the letters of approval to confirm this. The PP is listed in a consistent manner in the PoA-DD and all related project documentation, including the host county LoA and Modalities of Communication. No entities other than those approved as PP are included in section A or Annex 1 of the PoA-DD.

5.3 Contribution to Sustainable Development

As per VVS /08/ section 8.4, ERM CVS evaluated whether the letter(s) of approval by the DNA of the host Party(ies) confirms the contribution of the proposed CDM project activity to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
5.3.1	Does the LOA from the Host Party confirm that the project activity contributes to the sustainable development of that country?	CAR 1 was raised due to lack of host country LoA, given the host country LoA that provided for review, CAR 1 is closed. Please refer to Appendix B for details. Yes. The LoA from the Host Party confirm that the project activity contributes to the sustainable development of that country, which has been checked by the validation team against the LoA /03/.	CAR-1	OK

5.4 Modalities of Communication

As per VVS /08/ section 8.4, ERM CVS validated that the MoC statement has been correctly completed and duly authorised. ERM CVS also validated the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories (VVS section 7.9).

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
5.4.1	Are all corporate and personal details in the MoC, including specimen signatures, correct?	<p>CAR 1 was raised due to lack of host country LoA and MOC.</p> <p>After the host country LoA and MoC were provided and reviewed. CAR 1 is closed.</p> <p>In accordance with the VVS paragraph 54, corporate and personal details in the MoC have been confirmed through (c) the MoC was received from the Zhongtannengtou Tech Co., Ltd. with whom ERM CVS has a contractual relationship, and this entity has also provided written confirmation that all corporate and personal details, including specimen signatures, are valid and accurate /04/. The official who submitted the MoC statement to ERM CVS and the official who signed the written confirmation regarding the validity of specimen signatures are duly authorized to do so on behalf of the respective project participant. This has been confirmed by the authorization letter from the Zhongtannengtou Tech Co., Ltd. to authorize Ms. Chaoyuan Jia to sign the MoC on behalf of PPs. /04/.</p> <p>The specimen signatures in the MoC /04/ are checked against the authorization letters issued by the PP /04/ to confirm that the persons are the authorised signatories on behalf of the PP.</p> <p>The validation team confirmed that all corporate and personal details in the MoC, including specimen signatures are correct.</p>	CAR-1	OK
	<p>Has the MoC statement been correctly completed, including:</p> <ul style="list-style-type: none"> Using the latest form? All information, including annex 1, has been correctly provided? Listing all PPs? 	<p>CAR 1 was raised due to lack of host country LoA and MOC.</p> <p>After the the host country LoA and MoC were provided and reviewed. CAR 1 is closed.</p> <p>Based on review of the MoC /04/, it is confirmed that:</p> <ul style="list-style-type: none"> Yes, it is the latest form Yes, all information, including Appendix 1, has been correctly provided Yes, all PPs are listed 	CAR-1	OK
	<p>Has the MoC been signed by the authorised signatories of the PP?</p> <p>Are the signatories consistent with the names given in Annex 1 of the MoC?</p>	<p>CAR 1 was raised due to lack of host country LoA and MOC.</p> <p>After the host country LoA and MoC were provided and reviewed. CAR 1 is closed.</p> <p>Yes, the MoC has been signed by the authorised signatories of the PP/04/.</p> <p>Yes, the signatories are consistent with the names given in Annex 1 of the MoC /04/.</p>	CAR-1	OK

Conclusion

ERM CVS has performed due diligence on the MoC statement in accordance with the requirements established in the VVS. ERM CVS can confirm that the MoC statement complies with all relevant forms and requirements.

6 Validation findings – GSP, POA-DD and Project Description

6.1 Main changes between the PoA-DD version published for GSP and the final version submitted for registration:

- Changes related to the CARs and CLs, as identified in Appendix B.
- Typo and formatting errors have been revised.

6.2 Global stakeholder consultation

As per VVS /08/ section 8.4, the GSP-PoA-DDs were made publicly available for a period of 30 days from 11 June 2012 to 10 July 2012 on the UNFCCC website for the Global stakeholder process /05/.

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/gotoProj?id=1KU9BE1IHM0D4XFJUGCPV3JJJQRQUB>

No comments were received.

6.3 Programme of Activities Design Document (PoA-DD)

As per VVS /08/ section 8.4, ERM CVS reviewed the PoA-DD to determine whether it has been prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC website.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
6.3.1	Is the PoA-DD prepared in accordance with the latest forms and guidance by the CDM EB? http://cdm.unfccc.int/Reference/POA-DDs_Forms/PoA/index.html	ERM CVS can confirm that the PoA-DD has been checked against the latest 'Guidelines for completing the programme design document form for small-scale CDM programme of activities' (Ver02.0, EB67 Annex30) /06/ and the latest template for the small-scale Programme Design Document (version 02.0) /06/ available on the CDM website. The published PoA-DD is in compliance with the guidelines.	OK	OK

Conclusion

ERM CVS has confirmed that the PoA-DD has been prepared in accordance with the latest form and with relevant guidance.

6.4 PoA Description

As per VVS section 8.4, ERM CVS reviewed the description of the PoA in the PoA-DD in order to confirm the framework developed for the implementation of the PoA, and for defining a CPA under the PoA, and to evaluate whether it provides a clear and accurate description of the proposed CDM PoA and typical CPA. Validation of the PoA description was based on review of documentation, a physical inspection of the site of the first real case CPA, and interviews.

6.4.1 Description of the PoA

Policy/measure or stated goal of the PoA:

- 1) Promote the development of hydropower and facilitate the abatement of greenhouse gas (GHG) emissions through the replacement of fossil fuel-fired power generation in the CCPG as well, and;
- 2) Apply carbon finance for newly-built grid-connected hydropower projects in the area where the CPA are located, to promote the development of hydropower application, and;

- 3) Helps to solve the electricity shortage problem, increase local revenues and promote local economy, improve the living condition of the local residence and increase employment opportunities in local community.

There are no mandatory laws or regulations in place in China that require hydropower projects to be developed or to seek CDM services. Likewise, no mandatory laws or regulations exist requiring the managing entity or any other party to develop a PoA for hydropower projects in China. Therefore, this PoA is not implementing under any mandatory policy or regulation of host DNA. It is a voluntary action being coordinated and managed by the CME.

Description of the PoA:

The purpose of this PoA is to enhance the development of grid-connected small scale hydropower projects in rural areas in Sichuan Province of China. The geographic boundary of the PoA is defined as the Sichuan Province covered by the Central China Power Grid. The location of each CPA will be in rural areas of Sichuan Province and checked as per the eligibility criteria No.1 of this PoA. The rural area is defined as the county or village area in the document issued by State Statistics Bureau /27/.

The CME of this PoA is Zhongtannengtou Tech Co., Ltd., which will be responsible for all managing and coordinating work under this PoA. All CPAs to be included in the PoA are defined as greenfield run-of-river small hydropower plants or small hydropower plants with reservoir, with an installed capacity no more than 15MW and composed of water-retaining structure, turbines and generators and powerhouse, etc.

The electricity generated from activities under this PoA will be supplied to the Central China Power Grid (CCPG). The PoA will achieve greenhouse gas (GHG) emission reductions through the displacement of mainly fossil-fuel dominated grid connected power generation.

The findings of our validation of the project description in the PoA-DD are set out below.

6.4.2 PoA Boundary, Location and Status

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.4.2 (a)	Boundary: Is the definition of the boundary for the PoA correctly stated in terms of a geographical area (e.g., municipality, region within a country, country or several countries) within which all CPAs included in the PoA will be implemented, taking into consideration all applicable national and/or sectoral policies and regulations? How was this validated?	<p>The definition of the geographical boundary is not included in the section A.2 and B.2 of the GSP PoA-DD /01/. Therefore the CL 1 is raised. Please refer to CL 1 in Appendix B.</p> <p>The definition of the geographical boundary has been added in the section A.2 and B.2 of the PoA-DD /01/ and the boundary has been defined as the Sichuan Province covered by the Central China Power Grid. The location of each CPA will be in rural areas of Sichuan Province and checked as per the eligibility criteria No.1 of this PoA. It is also stated in the PoA-DD that the rural area is county or village area defined in the document issued by State Statistics Bureau /27/, which could be cross- checked by the description and maintenance and construction tax rate in the FSR/PDR of CPAs.</p> <p>The validation team checked against the LoA /03/ for this PoA and confirmed definition of the boundary in the eligibility criteria of this PoA was consistent with the description in the LoA /03/ for this PoA.</p> <p>Thus CL 1 is closed.</p>	CL-1	OK
6.4.2 (b)	Policy/measure or stated goal of the PoA: Does the PoA-DD describe the policy/measure or stated goal that the PoA seeks to promote? How was this validated?	<p>Yes. The stated goals were described in the PoA.</p> <p>The stated goals of the PoA are:</p> <ol style="list-style-type: none"> Promote the development of hydropower and facilitate the abatement of greenhouse gas (GHG) emissions through the replacement of fossil fuel-fired power generation in the CCPG as well, and; Apply carbon finance for newly-built grid-connected hydropower projects in the area where the CPA are located, to promote the development of hydropower application, and; 	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>3) Helps to solve the electricity shortage problem, increase local revenues and promote local economy, improve the living condition of the local residence and increase employment opportunities in local community.</p> <p>The validation team have made an on-site interview with the CME IV1 and local authorities IV3 & IV4 to confirm that.</p>		
6.4.2 (c)	Confirmation of voluntary action: Does the POA-DD provide confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity? How was this validated?	<p>Yes. The confirmation of voluntary action was described in the PoA.</p> <p>There are no mandatory requirements in China requiring the use of hydro power as electricity generation. Although the Renewable Energy Law/16/ has been in effect since 01/01/2006, which is aimed at making the plan and industry guidance and promotion measures for the development of all renewable energy(including hydro, wind, solar, geothermal and biomass etc.), detailed promotion measures for hydro power are not issued yet. This has been confirmed by cross checking through interviews with the local authorities IV3 & IV4 and the CME IV1.</p>	OK	OK

Conclusion

The process undertaken to validate the accuracy and completeness of the PoA description is set out in detail above. ERM CVS has confirmed that the description in the PoA-DD provides a clear, accurate and complete understanding of the nature of the proposed CDM PoA.

6.4.3 Description of a typical CPA

A typical CPA consists of a run-of-river or reservoir type hydropower project, with total installed capacity of no more than 15 MW. The description of a typical CPA in the PoA-DD has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
6.4.3 (a)	(i) Description: Typical CPA design Does the description of the typical CPA in the PoA-DD section A provide a clear, accurate and sufficiently detailed description of the technologies and/or measures to be employed and/or implemented by the CPAs in the PoA? If relevant, has the description considered applicable provisions for application of selected baseline and monitoring methodology?	<p>Yes. The typical CPA in the PoA-DD part II/01/ gives a description of relevant elements of a typical CPA. The description includes:</p> <ul style="list-style-type: none"> a) The list of main technologies involved are run-of-river or reservoir type hydropower, as set in template in the generic CPA of the PoA-DD part II; b) The template of main equipment and installations is not stated in the generic CPA of the PoA-DD part II. Please refer to CL 1. c) The template of lifetime of the project equipment is not stated in the generic CPA of the PoA-DD part II. Please refer to CL 1. d) The template of monitoring equipment and its location are not stated in generic CPA of the PoA-DD part II. Please refer to CL 1. e) The installed capacity is clearly set in template in generic CPA of the PoA-DD part II. f) The emissions sources and GHGs involved are clearly set in template in generic CPA of the PoA-DD part II. g) The existing and forecast energy and mass flows and balances are set in template in generic CPA of the PoA-DD part II. h) The description of whether the technology is transferred from Annex I countries is not clearly stated in generic CPA in the PoA-DD part II. Please refer to CL 1. <p>The template of main equipment and installations, lifetime of the project, monitoring equipment and location and description of whether the technology transfers from Annex I countries has been added in the A.1 part of the generic CPA-DD.</p> <p>Hence, CL1 is closed.</p> <p>The validation team deem that the description of the typical CPA in the PoA-DD</p>	CL1	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		section A provides a clear, accurate and sufficiently detailed description of the technologies and/or measures to be employed and/or implemented by the CPAs in the PoA.		
6.4.3 (b)	Description: Existing installations a) If the typical CPA involves the alteration of an existing facility, installation or process, does the description clearly state the differences resulting from the PoA compared to the pre-project situation? b) How has the description of the existing facility, installation or process been validated? c) Is the description of the existing facility, installation or process consistent with information provided in other parts of the CPA-DD such as common practice and baseline selection?	N/A. The PoA only includes new small scale hydropower plants.	N/A	N/A
6.4.3 (c)	Is the description in the generic CPA-DD consistent with the validated description in the PoA DD as discussed above?	Refer to CL 1 The template of main equipment and installations, lifetime of the project, monitoring equipment and location and description of whether the technology transfers from Annex I countries has been supplemented in the A.1 part of the generic CPA-DD. Hence, CL 1 is closed. After review the PoA-DD and generic CPA-DD, the validation team deem that the description in the generic CPA-DD is consistent with the validated description in the PoA DD.	CL-1	OK

Conclusion

ERM CVS has confirmed that the description in the PoA-DD and typical CPA-DD provides a clear, accurate and complete understanding of the precise nature of the PoA and the technical aspects of its implementation. The description sufficiently covers all relevant elements, is accurate, and clearly states the differences resulting from the PoA compared to the pre-project situation.

7 Validation Findings - Eligibility Criteria for Inclusion of a CPA in a PoA

7.1 Description of Eligibility Criteria

Following guidance from EB 63 Annex 3, ERM CVS evaluated the eligibility criteria contained in section B.2 of the PoA-DD to evaluate whether they are verifiable, sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
7.1.1	Do the eligibility criteria include the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA (for example, an emission factor for electricity generation is dependent on the boundaries of regional or state or sub-regional grids)? Are the relevant criteria verifiable and sufficiently objective?	<p>The definition of the geographical boundary is not included in the section B.2 of the PoA-DD (version 1.0) /01/. Hence CL 1 was raised. Please refer to CL 1 in Appendix B for details.</p> <p>The geographical boundary of the PoA is identified as the Sichuan Province covered by the Central China Power Grid. All CPAs shall be located in county or village area of Sichuan Province, which can be identified as "rural area" as per the document issued by State Statistics Bureau of China/27/.</p> <p>Thus, CL 1 is closed.</p> <p>As stated in the eligibility criteria of the revised PoA-DD. The CPA must be located within the geographical boundary of the Sichuan Province of China covered by the Central China Power Grid. It is also stated in the PoA-DD that all CPAs shall be located in the rural area, which can be identified as the county or village area defined in the document issued by State Statistics Bureau of China /27/.</p> <p>The geographical coordinate's description of the CPA location, maintenance and construction tax rate in Feasibility Study Report (FSR) or Preliminary Design Report (PDR), the river basin planning map issued by an independent third party or the river basin planning approval issued by the relevant government authority, the project description in approved FSR or PDR could be checked at the time of the CPA inclusion.</p> <p>The validation team confirmed that relevant criteria are verifiable and sufficiently objective based on local and sectoral expertise.</p>	CL-1	OK
7.1.2	Do the criteria include conditions that avoid double counting of emission reductions, like unique identifications of product and end-user locations (e.g. programme logo)? Are the relevant criteria verifiable and sufficiently objective?	<p>The CL 2 is raised. Please refer to CL 2 in Appendix B for details.</p> <p>It is stated in the revised PoA-DD that the inclusion of the CPA should not lead to double counting of the emissions reduction by confirming that the CPA is neither a registered CDM project activity nor a CPA of other registered PoAs.</p> <p>The criteria also include conditions that avoid double counting of emission reductions. Data and evidence on each CPA to be included into the PoA, such as unique geographical coordinates and project description in approved FSR/PDR shall be accumulated and checked by the CME comparing the information available on the UNFCCC website to avoid double accounting.</p> <p>The validation team confirmed that relevant criteria are verifiable and sufficiently objective based on local and sectoral expertise.</p> <p>Hence, CL 2 is closed.</p>	CL-2	OK
7.1.3	Do the criteria include the specifications of technology/measure including the level and type of service, and performance specifications, including	<p>Yes. The criteria include the specifications of technology to be applied. All qualified CPAs will be greenfield run of river or reservoir hydro power plants with installed capacity of no more than 15MW and power density greater than 4W/m²(for reservoir hydro power plant only). It is also stated in the criteria that the CPA shall use new equipment to generate electricity power. For reservoirs power plants, new reservoir should be applied, i.e. the project using existing reservoir</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	compliance with testing/certifications? Are the relevant criteria verifiable and sufficiently objective?	<p>should be excluded.</p> <p>The approved FSR/PDR, relevant approval issued by the government authority or other available documents could be cross-checked at the time of the CPA inclusion.</p> <p>The validation team confirmed that the relevant criteria are verifiable and sufficiently objective.</p>		
7.1.4	Do the criteria include conditions to check the start date of the CPA through documentary evidence? Are the relevant criteria verifiable and sufficiently objective?	<p>It is stated in the GSP PoA-DD that the start date of CPA will not exceed the GSP date of PoA. However, the condition and procedure to check the start date of the CPA through evidence is not mentioned in the eligibility criteria in the PoA-DD. Therefore the CL 3 is raised.</p> <p>The revised PoA-DD states that the start date of the CPA should be on or after the start date of the PoA, which is the date that the PoA-DD first published for global stakeholder consultation.</p> <p>As per the CDM Glossary of Terms (version 7.0) /07/, the start date of the CPA is defined as the earliest date at which either the implementation or construction or real action of a CDM project activity. The following documental evidence could be checked, including construction contract, equipment purchase contract, Construction Start Permission, or other available documents, which is consistent with CDM Glossary of Terms (version 7.0) /07/.</p> <p>Hence, CL 3 is closed.</p> <p>The validation team confirmed that the relevant criteria are verifiable and sufficiently objective.</p>	CL-3	OK
7.1.5	Do the eligibility criteria include conditions that ensure compliance with applicability and other requirements of single or multiple methodology/ies applied by CPAs? Are the relevant criteria verifiable and sufficiently objective?	<p>Yes. All CPAs to be included in the PoA should apply for the SSC methodology AMS-I.D. (Version 17)/09/, and the applicable scope for all CPAs is defined in the eligibility criteria consistent with the methodology AMS-I.D.(Version 17) /09/.</p> <p>All qualified CPAs should be applicable for the methodology of AMS-I.D. (version 17.0) /09/, which has been clearly described and justified in section B.3 of the PoA-DD.</p> <p>It is also stated in the eligibility criteria that each CPA should be greenfield run of river or reservoir hydro power plant with installed capacity of no more than 15MW and power density greater than 4W/m² (for reservoir hydro power plant only). It is also stated in the criteria that the CPA shall use new equipment to generate electricity power and for reservoirs power plants, new reservoir should be applied. All CPAs to be included in the PoA shall not involve in retrofitting or modifying an existing facility for renewable energy generation.</p> <p>The approved FSR/PDR and related documents ensuring that there was no power plant existing at the site before and confirming installed capacity and surface area of the CPA can be checked and reviewed to secure the compliance with applicability of methodologies at the time of CPA inclusion.</p> <p>The validation team confirmed that the relevant criteria are verifiable and sufficiently objective.</p>	OK	OK
7.1.6	Do the eligibility criteria include conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality (please refer to the latest approved version of the <i>Standard for demonstration of</i>	<p>CPAs are divided into two types for the demonstration of additionality, as follows:</p> <ol style="list-style-type: none"> 1. For the CPA which is with installed capacity of no more than 5 MW and is located in an underdeveloped zone of the country identified as per the Guidelines for demonstrating additionality of micro-scale project activities, additionality may be demonstrated as per the Guidelines for demonstrating additionality of micro-scale project activities 	CL-4	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	<i>additionality, development of eligibility criteria and application of multiple methodologies for Programme of Activities); Are the relevant criteria verifiable and sufficiently objective?</i>	<p>(Version 03);</p> <p>2. For the CPA >5 MW and ≤15MW or <5MW but not in underdeveloped zone identified as per the Guidelines for demonstrating additionality of micro-scale project activities, additionality demonstration should base on the latest guidelines on the demonstration of additionality of small-scale project activities, and investment barrier analysis should be adopted to demonstrate the CPA's additionality as per the latest guidelines on the assessment of investment analysis and any other relevant guidance from the board pertaining to investment analysis.</p> <p>However, the version of the guidelines for demonstrating additionality of micro-scale project activities has been updated to version 04.0 /12/. The revision of the demonstration of additionality in the eligibility criteria is need to be in line the latest guidelines for demonstrating additionality of micro-scale project activities. CL 4 is raised. Please refer to CL 4 in Appendix B for details.</p> <p>The eligibility criteria have been revised as per the latest guidelines for demonstrating additionality of micro-scale project activities (version 04.0)/12/.</p> <p>CPAs up to five megawatts that employ renewable energy technology are additional if the geographic location of the project activity is in one of the least developed countries or the small island developing States (LDCs/SIDS) or in a special underdeveloped zone (SUZ) of the host country defined as per the guidelines for demonstrating additionality of micro-scale project activities (Version 4.0)/12/;</p> <p>For the CPA >5 MW and ≤15MW or CPA <5MW but not in SUZ identified as per the guidelines for demonstrating additionality of micro-scale project activities (version 04.0)/12/, additionality demonstration is based on the latest guidelines on the demonstration of additionality of small-scale project activities, and investment barrier analysis will be adopted to demonstrate the CPA's additionality as per the latest guidelines on the assessment of investment analysis and any other relevant guidance from the board pertaining to investment analysis. Steps and guidance for CPAs to demonstrate additionality using an investment analysis are included in the generic CPA-DD (part II of the PoA-DD).</p> <p>Thus, CL 4 is closed.</p> <p>The DOE at the time of CPA inclusion will be required to validate the investment analysis as per the steps set out in section II of the PoA-DD, the latest version of the 'Guidelines on the assessment of investment analysis', the requirements of the VVS paragraphs 117 to 123, any other relevant guidance from the board pertaining to investment analysis and all specific documents in this eligibility criteria of revised PoA-DD. This will ensure a rigorous and thorough demonstration of additionality at the CPA level, based on ERM CVS's experience and knowledge of investment analysis and ERM CVS's financial expertise.</p> <p>The validation team confirmed that the relevant criteria are consistent with the latest approved version of the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for Programme of Activities /10/, and are verifiable and sufficiently objective.</p>		
7.1.7	Do the eligibility criteria include, if applicable, any PoA-specific requirements stipulated by the CMEs including any conditions related to undertaking local stakeholder consultations and environmental impact analysis (See also paragraph	<p>The eligibility criteria requirements related to undertaking local stakeholder consultations and environmental impact analysis were not included in the GSP version of the PoA-DD. Therefore CL 5 is raised. Please refer to CL 5 in Appendix B for details.</p> <p>The PoA-DD was revised. Local stakeholder consultations meeting and stakeholder questionnaires would be carried out to collect comments from all local stakeholders at the CPA level.</p>	CL-5	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	6 (m) of Procedures for registration of a programme of activities as a single CDM project activity and issuance of CERs for a PoA). Are the relevant criteria verifiable and sufficiently objective?	<p>Assessment of Impact on air, water, acoustic and solid environment would be carried out to complete the environmental impact analysis (EIA). The EIA report and approval documents will be checked and reviewed.</p> <p>Hence, CL 5 is closed.</p> <p>The questionnaire of stakeholders survey and minute of local stakeholder consultations meeting will be checked to confirm whether the local stakeholder consultation is appropriate. And EIA report by the independent third party and EIA approval will be checked to confirm that the project is in accordance with the requirements of environmental impact analysis of the host country.</p> <p>The validation team confirmed that relevant criteria are verifiable and sufficiently objective based on local and sectoral expertise.</p>		
7.1.8	Do the criteria include, where applicable, the target group (e.g. domestic/ commercial/ industrial, rural/ urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation)? (This is to re-test the validity of assumptions made at the PoA level. For example, in a lighting efficiency application, lighting usage hours of 3.5 hours per day would be valid if the target group is residences/households. Usage hours would be different in commercial applications and vice versa), Are the relevant criteria verifiable and sufficiently objective?	<p>The eligibility criteria related to target group and distribution mechanisms are not included. Therefore CL 5 is raised. Please refer to CL 5 in Appendix B for details.</p> <p>The qualified CPA will be a greenfield grid-connected small scale hydropower project in rural areas of Sichuan Province developed by registered company. The approved FSR/PDR, Business licence of the CPA implementer, power purchase agreement (PPA) or grid connection agreement (if available) or other available documents can be checked and reviewed at the time of CPA inclusion.</p> <p>The validation team confirmed that the criterion is sufficiently objective and verifiable based on the description in eligibility criteria of the revised PoA-DD.</p>	CL-5	OK
7.1.9	Do the criteria include, where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/ standard from the Board pertaining to sampling and surveys? Are the relevant criteria verifiable and sufficiently objective?	<p>The conditions related to sampling requirements for a PoA are not clearly described in the eligibility criteria. Hence, the CL 6 is raised. Please refer to CL 6 in Appendix B for details.</p> <p>It is stated in the updated eligibility criteria of the PoA-DD that each CPA will be verified individually. Thus the PoA will not include any sampling or surveys.</p> <p>The validation team confirmed that it would be required by the eligibility criteria that no sampling would be employed in this PoA.</p> <p>Hence, CL 6 is closed.</p>	CL-6	OK
7.1.10	Do the criteria include, where applicable, conditions that ensure that the CPA in aggregate meets the small-scale or micro-scale threshold criteria (please refer to the latest approved version of the Guidelines for demonstrating additionality of micro-scale project activities and the latest approved version of the General Guidelines to SSC CDM methodologies) and remain within those thresholds	<p>Yes. It is stated in the PoA-DD that the qualified CPA should meet the small-scale (output capacity over 5MW but up to 15 MW) or micro-scale (output capacity up to 5MW) threshold criteria, which is defined in the Glossary of CDM terms (version 7.0)/07/, and remains within those thresholds throughout the crediting period of the CPA.</p> <p>The approved FSR/PDR could be checked to ensure that the CPA in aggregate meets the small-scale or micro-scale threshold criteria. Furthermore, the operation and maintenance log, name plate of turbines and generators or other available documents could be checked on-site to ensure the CPA remains within those thresholds throughout the crediting period of the CPA.</p> <p>The validation team confirmed that relevant criteria are verifiable and sufficiently</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	throughout the crediting period of the CPA? Are the relevant criteria verifiable and sufficiently objective?	objective based on local and sectoral expertise.		
7.1.11	Do the criteria include, where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or micro-scale project categories (please refer to the latest approved version of the Guidelines on assessment of debundling for SSC project activities)? Are the relevant criteria verifiable and sufficiently objective?	<p>It is stated that a qualified CPA must not be a debundled component of a large scale project activity and the CME will check the CDM database of China's DNA and UNFCCC to identify.</p> <p>However, the procedure to check the debundling is not consistent with the latest approved version of the guidelines on assessment of debundling for SSC project activities. Hence, CL 7 is raised. Please refer to CL 7 in Appendix B for details.</p> <p>The procedure in the eligibility criteria to check the debundling has been updated to be in line with the latest approved version of the guidelines on assessment of debundling for SSC project activities.</p> <p>The procedures of debundling check were described in the eligibility criteria in the PoA-DD that there should not be an already activity, which may be a (i) registered small-scale CPA of a PoA, (ii) an application to register another small-scale CPA of a PoA or (iii) another registered CDM project activity, which satisfies both conditions (a) and (b) below:</p> <p>(a) That has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and;</p> <p>(b) Where the boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.</p> <p>The declaration from CPA implementer on non-debundling, approved FSR/PDR and available information on all registered activities on the CDM website could be checked and reviewed at the time of inclusion.</p> <p>The validation team confirmed that was consistent with the latest approved version of the guidelines on assessment of debundling for SSC project activities /12/ and is sufficient objective and verifiable.</p>	CL-7	OK
7.1.12	Do the criteria include conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance? Are the relevant criteria verifiable and sufficiently objective?	<p>The criteria include the condition to provide an affirmation that funding from Annex I parties will not result in a diversion of official development assistance.</p> <p>However, the procedure and evidence to check the affirmation that funding from Annex I party is not clear enough in the GSP PoA-DD. Please refer to CL 8.</p> <p>The PoA-DD was revised. The CPA implementer will sign a declaration affirming that no funding from Annex I parties is used. The loan contract or other public available documents demonstrating no funding from Annex I parties will be checked and reviewed. Therefore, the validation team deem that acceptable.</p> <p>Hence CL 8 is closed.</p> <p>The validation team confirmed that criteria are verifiable and sufficiently objective base on local and sectoral expertise.</p>	CL-8	OK
7.1.13	Does the CME have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA?	<p>Yes. It is stated in the PoA-DD that the CME is Zhongtannengtou Tech Co., Ltd, which is a registered consulting company in host country with relevant experience of CDM project developing.</p> <p>As validated based on review of the CME management Manual /24/, ERM CVS also checked the Business license of Zhongtannengtou Tech Co., Ltd. /17/, CVs of the CME's key personnel /25/, the definition of roles and responsibilities of personnel, procedure to avoid double accounting, record and documentation control process, and can confirm that the CME has competencies to check CPA</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		features and ensure that CPA meets all requirements and eligibility criteria. Please see section 10 for further details of how the operation and management system of the CME was validated.		
7.1.14	Is the set of eligibility criteria sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	As described in above tables, CL 2, 3, 4, 5, 6, 7 and 8 are closed. The validation team confirmed the set of eligibility criteria is sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA and all eligibility criteria is consistent with relevant guidelines and other documents of EB.	CL-2 CL-3 CL-4 CL-5 CL-6 CL-7 CL-8	OK

Conclusion:

ERM CVS can confirm that the CME has developed eligibility criteria for inclusion of a CPA under the PoA and has included these criteria in the PoA design document and demonstrated their usability to assess the inclusion of CPAs. The POA-DD provides a detailed description of the eligibility criteria for inclusion of a project activity as a CPA under the PoA, which includes criteria for demonstration of additionality of the CPA, and the type and/or extent of information (e.g. criteria, indicators, variables, parameters or measurements) that shall be provided by each CPA in order to ensure its eligibility. The eligibility criteria are verifiable, and are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA. ERM CVS has assessed the specified eligibility criteria and can conclude that the criteria are sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA.

8 Validation findings – Baseline and Monitoring Methodology

ERM CVS has evaluated the baseline and monitoring methodology selected by the PPs to confirm its applicability and whether or not it has been appropriately applied in the PoA-DD.

8.1 Validity of selected methodology and methodological tools

As per VVS section 8.4, ERM CVS validated that an approved and currently valid baseline and monitoring methodology (and associated methodological tools) have been applied for this proposed CDM PoA.

Baseline methodology(ies) applied	AMS-I.D.: Grid connected renewable electricity generation, Version 17, EB 61
Methodological tools applied as required by the methodology(ies)	Tool to calculate the emission factor for an electricity system (version 02.2.1); Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, Version 02.1, EB70

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.1.1	Is the number, title and version of the approved methodology clearly and correctly stated in the PoA-DD?	Yes. ERM CVS has determined that the methodology is correctly quoted and applied by comparing with the actual text of the applicable version of the methodology available on the UNFCCC CDM website.	OK	OK
	Is the methodology within their period of validity?	The methodology is within its period of validity.		
	Are all the required tools applied and fully referenced in the PoA-DD and generic CPA-DD?	Yes. ERM CVS has determined that the methodological tools /10/ are correctly quoted and applied by comparing with the actual text of the applicable version of the tools available on the UNFCCC CDM website. The tools are within their period of validity:	OK	OK
	Are the version numbers applicable at the time of validation?	Tool to calculate the emission factor for an electricity system, Version 02.2.1, EB 63 /10/.		
	If applicable, has any specific guidance provided by the CDM EB relating to the applied methodology been considered?	Yes The following EB guidance have been considered: Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /10/. "Guidelines on the demonstration of additionality of small-scale project activities" (version 9.0), EB68, Annex27 /11/.	OK	OK

Conclusion

The applied methodology(ies) and associated methodological tools have been correctly described and are approved by the CDM Executive Board. All versions are currently valid.

8.2 Applicability of the selected methodology to the typical CPA

As per VVS section 8.4 and EB47 Annex 31, ERM CVS evaluated whether the selected baseline and monitoring methodology applied in the proposed PoA is applicable to the typical CPA described in the PoA-DD. This is also one of the eligibility criteria for inclusion of new CPAs to the PoA. This evaluation was based on a review of the PoA-DD and associated documentation and a visit to the first real case CPA proposed to be included in the PoA. ERM CVS has validated whether the applicability

conditions of the methodology and relevant tools are met and whether the PoA is not expected to result in emissions other than those allowed by the methodology.

ERM CVS has assured the compliance of the typical CPA with each of the applicability conditions of the selected methodology and tools, set out in the PoA-DD (Applicability Criteria):

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
8.2.1	AMS-I.D, Version 17 This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: (a) Supplying electricity to a national or a regional grid; or (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	Yes	Yes	The applicability conditions are properly explained and clearly justified in the PoA-DD. By site visit and interviews /IV1/ with the CME and local authorities, it is confirmed that all CPAs to be included in the PoA would provide electricity to regional grids- the CCPG by developing hydropower. This is clearly stated as a requirement in the eligibility criteria. Hence, it is applicable to the AMS-I.D./09/.	OK	OK
	AMS-I.D, Version 17 This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).	Yes	Yes	All CPAs to be included in the PoA are installation a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant). This is clearly stated as a requirement in the eligibility criteria. Hence, it is applicable to the AMS-I.D./09/.	OK	OK
	AMS-I.D, Version 17 Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: • The project activity is implemented in an existing reservoir with no change in the volume of reservoir; • The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4	Yes	Yes	It is stated in the criteria eligibility of the PoA that all CPAs to be included in the PoA should satisfy at least one of the following conditions: 1. Newly built hydropower project in an existing reservoir with no change of reservoir volume; 2. Newly built hydropower project in an existing reservoir, with increase of reservoir volume but power density is $> 4 \text{ W/m}^2$; 3. Newly built hydropower project result in new reservoirs and the power density of the power plant a new reservoir is $> 4 \text{ W/m}^2$. Hence, it is applicable to the AMS-I.D.	OK	OK

	Applicability Conditions in methodology and/or tools	Discussed in PoA-DD (yes/no)	Applicable (Yes/No, or state that this condition is not relevant for the project)	Validation findings (including justification and substantiation of information, data and evidence).	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>W/m²;</p> <ul style="list-style-type: none"> The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m². 					
	<p>AMS-I.D, Version 17</p> <p>If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	N/A	N/A	Not applicable. All CPAs to be included in the PoA are defined to apply hydropower electricity generation technology only.	N/A	N/A
	<p>AMS-I.D, Version 17</p> <p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	N/A	N/A	Not applicable. All CPAs to be included in the PoA are defined to apply the hydropower electricity generation technology individually in PoA-DD/01/. This is clearly stated in the eligibility criteria.	N/A	N/A
	<p>AMS-I.D, Version 17</p> <p>In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p>	N/A	N/A	Not applicable. All CPAs to be included in the PoA will not involve in retrofitting or modifying an existing facility for renewable energy generation, since only new hydropower plants are included. This is included as one of the eligibility criteria (eligibility criteria a). Furthermore, all qualified CPAs are defined to be Greenfield projects in the eligibility criteria in PoA-DD/01/.	N/A	N/A
	<p>AMS-I.D, Version 17</p> <p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	N/A	N/A	Not applicable. All CPAs to be included in the PoA will not involve in retrofitting or modifying an existing facility for renewable energy generation. Furthermore, all qualified CPAs are defined to be Greenfield projects in the eligibility criteria in PoA-DD /01/.	N/A	N/A

Conclusion

The applied methodology and associated tools are fully applicable to the typical CPA and is correctly applied in the PoA-DD. There no greenhouse gas emissions sources were identified within the proposed typical CPA boundary as a result of the

implementation of the proposed CPA which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.

8.3 CPA Boundary

As per VVS section 8.4, ERM CVS reviewed the description of the project boundary in the PoA-DD, including the sources and gases included in the boundary of the proposed typical CPA for the purpose of calculating project and baseline emissions for the typical CPA. The eligibility criteria define that each CPA must be located in rural areas of Sichuan Province and interconnected to the CCPG.

8.3.1 Emission sources

The emissions sources included in or excluded from the typical CPA boundary, as set out in the applied methodology are as follows:

	Source	Gas	Included in CPA-DD?	Is inclusion / exclusion justified in the CPA-DD?	How has this been validated?
Baseline emissions	CO ₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the programme	CO ₂	Yes	Yes	This is main emission source in baseline as per AMS-I.D./09/.
		CH ₄	No	Yes	This is minor emission source in baseline as per AMS-I.D./09/.
		N ₂ O	No	Yes	This is minor emission source in baseline as per AMS-I.D./09/.
Project emissions	CPAs	CO ₂	No	Yes	DOE confirms that as per the methodologies AMS-I.D /09/.and ACM0002/09/, the emission of this source is regarded as zero.
		CH ₄	Yes	CAR-2 Yes	This is a hydropower projects. The project emission of CH ₄ from water reservoirs will exist if the power density of the project activity (PD) is lower than 10W/m ² . It is defined in the methodologies AMS-I.D /09/.and ACM0002/09/.
		N ₂ O	No	Yes	DOE confirms that as per the methodologies AMS-I.D/09/ and ACM0002/09/, the emission of this source is regarded as zero.
Leakage emissions	No leakage	N/A	N/A	Yes	The CPAs to be included in PoA are newly installed hydropower project, without any transfer of energy generating equipment from another activity, hence, no leakage need to be considered as per AMS-I.D./09/.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.3.1	Has the PoA-DD justified the inclusion/exclusion of all potential sources of GHG emissions as set out in the applied baseline methodology Is this information also stated consistently in the generic CPA-DD?	All proposed CPAs will be hydropower projects. The project emission is defined in AMS-I.D. to calculate as per the procedure of ACM 0002 (Version 13.0.0, EB67) /09/. However, the emission sources of CH ₄ defined in ACM 0002 are not included in the generic CPA-DD/01/, and the calculation steps and procedures of project emission of CH ₄ are not stated in the PoA-DD (version 1.0). Hence, CAR 2 is raised. Please refer to CAR 2 in the Appendix B. The project emission of CH ₄ are correctly identified in the revised PoA-DD. The	CAR-2	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>detail of the emission sources, relevant calculation steps, formulas of CH₄ and project emission have been added in the generic CPA-DD and were consistent with the AMS.I.D (Version 17) /09/ and the ACM0002 (Version 13.0.0) /09/.</p> <p>Hence, CAR 2 is closed.</p> <p>ERM CVS evaluated whether the sources of GHG emission set out in the applied methodology were included in the CPA boundary and, where the methodologies allow CME/CPA operator to choose whether a source or gas is to be included within the CPA's boundary. This has been clearly justified in the revised PoA-DD. The validation was based on methodologies AMS-I.D (Version 17) /09/.</p>		

Conclusion

The identified boundary and the selected sources and gases included in the final PoA-DD and generic CPA-DD are appropriately described and justified in accordance with the applied methodology. The information is correctly described in the PoA-DD and section B.4 of the generic CPA-DD.

8.3.2 Emission sources not addressed by the methodology

ERM CVS evaluated whether there are any emission sources that will be affected by the typical CPA and are not addressed by the applied methodology.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.3.2	Were any emission sources identified that will be affected by the typical CPA and are not addressed by the selected approved methodology? If so, was clarification of, revision to or deviation from the methodology approved in accordance with required procedures.	No emissions sources other than those addressed by the methodologies AMS-I.D. were identified.	OK	OK

8.4 Baseline identification

As per VVS section 8.4, ERM CVS reviewed the PoA-DD to assess whether it correctly identifies the baseline for proposed CPAs, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CPAs.

As per VVS section 8.4, no alternative analysis is required if the approved methodology that is selected by the proposed CDM PoA prescribes the baseline scenario. Furthermore, the AMS-I.D. (Version 17) defines that the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

The baseline identification has been validated as follows:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.4.1	Does the PoA-DD identify the baseline for a PoA and typical CPA, a scenario that represents the anthropogenic emissions by sources of GHG that would occur in the absence of the PoA?	Yes. The PoA-DD/01/ identifies the baseline scenario of the CPAs supply the electricity to regional grids- the CCPG as per the methodology AMS-I.D.	OK	OK
	Have the procedures/ steps to identify the most reasonable baseline scenario, as required by the methodology(ies) and applicable tools, been documented clearly in the PoA-DD for a typical CPA?	Since the baseline is specified by the methodology, no further procedures / steps to identify the most reasonable baseline scenario are required.	N/A	N/A

Conclusion

Based on the site visit and documentary evidence to cross check the information contained in the PoA-DD as referenced above, ERM CVS confirms that:

- All the assumptions and data used by the PPs in establishing the baseline scenario are listed in the PoA-DD, including their references and sources;
- All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PoA-DD;
- Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed PoA.

8.5 Algorithms and/or formulae used to determine emission reductions

As per VVS section 8.4, ERM CVS has evaluated whether the steps taken and equations applied to calculate project emissions, baseline emissions, leakage, and emission reductions comply with the requirements of the selected baseline and monitoring methodology.

ERM CVS conducted validation activities to determine whether the equations and parameters in the PoA-DD have been correctly applied by comparing them to those in the selected approved methodology. Where the methodology provides for selection between different options for equations or parameters, ERM CVS confirmed that adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed typical CPA and other evidence provided) and that the correct equations and parameters have been used, in accordance with the methodology selected.

ERM CVS verified the justification given in the PoA-DD for the choice of data and parameters used in the equations. Where data and parameters will not be monitored throughout the crediting period of the PoA but have already been determined and will remain fixed throughout the crediting period (ex-ante parameters) for all included CPAs, ERM CVS assessed that all data sources and assumptions are appropriate and calculations are correct, applicable to the proposed PoA and will result in a conservative estimate of the emission reductions. Where data and parameters will be monitored on implementation and hence become available only after validation of the project activity, ERM CVS confirmed that the estimates provided in the PoA-DD for these data and parameters are reasonable (please see section 11 for details of the validation of the monitored parameters in the typical CPA-DD).

8.5.1 Ex Ante Data and Parameters

Each parameter required by the methodology and tools for this project type is listed and validated at PoA level as follows:

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title and description in the PoA-DD line with the Methodology?	Data unit correctly expressed in PoA-DD?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
$EF_{CO2,i,y}$	CO ₂ emission factor of fossil fuel type <i>i</i> used in power unit <i>m</i> in year <i>y</i>	Yes	Yes	No Minor issue 1 Yes. Correction has been made in the revised PoA-DD	Yes. ERM CVS validated this by checking 2006 IPCC default values at the lower limit of the uncertainty at a 95% confidence interval /15/.	Yes
NCV_i	Net calorific value (energy content) of fossil fuel type <i>i</i> in year <i>y</i>	Yes	Yes	No Minor issue 1 Yes. Correction has been made in the revised PoA-DD	Yes. ERM CVS validated this by checking China Energy Statistical Yearbook 2010 /14/.	Yes
$EF_{grid,OM,y}$	Operating Margin Emission Factor	Yes	Yes	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
$EF_{grid,BM,y}$	Build Margin Emission Factor	Yes	Yes	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
$EF_{grid,CM,y}$	CM emission factor, the weighted average of OM and BM, ex-ante calculation and determination.	Yes	Yes	No Minor issue 1 Yes. Correction has been made in the revised PoA-DD	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
$CAP_{Total,y}$	Total capacity addition exceeding 20% of existing capacity in year <i>y</i>	Yes	Yes	Yes	Yes. ERM CVS validated this by checking China Electric Power Yearbooks (2008 to 2010) /14/.	Yes

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title and description in the PoA-DD line with the Methodology?	Data unit correctly expressed in PoA-DD?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
$CAP_{Thermal,y}$	Capacity addition of thermal power in year y	Yes	Yes	Yes	Yes. ERM CVS validated this by checking China Electric Power Yearbooks (2008 to 2010) /14/.	Yes
$FC_{i,y}$	The amount of fuel i (in a mass or volume unit) consumed by relevant power sources m in year(s) y	Yes	Yes	Yes	Yes. ERM CVS validated this by checking China Energy Statistical Yearbooks (2008 to 2010) /14/.	Yes
EG_y^*	Net electricity generated by power plant in year y	Yes	N/A	Yes	Yes. ERM CVS validated this by checking China Electric Power Yearbooks (2008 to 2010) /14/.	Yes
$EF_{Coal,Adv,y}^*$	Emission factor proxies of efficiency level of the best coal-fired power generation technology commercially available in China	Yes	N/A	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
$EF_{Oil,Adv,y}^*$	Emission factor proxies of efficiency level of the best oil-based power generation technology commercially available in China	Yes	N/A	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
$EF_{Gas,Adv,y}^*$	Emission factor proxies of efficiency level of the best gas-based power generation technology commercially available in China	Yes	N/A	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes
EF_{Res}	Default emission factor for emissions from reservoirs	Yes	Yes	Yes	Yes. ERM CVS validated this by checking the methodology ACM0002 (Version 13.0.0) /9/.	Yes
Cap_{BL}	Installed capacity of the hydro power plant before the implementation of the	Yes	N/A	Yes	Yes. ERM CVS validated this by checking ACM0002	Yes

Parameter required as per methodology / tools	Description of the parameter (as per methodology)	Is the parameter included in the PoA-DD?	Title and description in the PoA-DD line with the Methodology?	Data unit correctly expressed in PoA-DD?	Value in PoA-DD correct and provides for conservative estimate of Emission Reductions? How was this validated?	Measurement method correctly described in the PoA-DD (if applicable)
	project activity. Given that all qualified CPAs would be new hydro power plants as per the eligibility criteria, this value is zero for all CPAs.				(Version 13.0.0)/9/.	
A_{BL}	Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m^2). Given that all qualified CPAs would apply new reservoirs as per the eligibility criteria, this value is zero for all CPAs.	Yes	N/A	Yes	Yes. ERM CVS validated this by checking Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/.	Yes

*Above parameters are from Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/, China Electric Power Yearbooks (2008 to 2010) /14/ and China Energy Statistical Yearbook 2010 /14/. They are not required by the methodology or the tools applied.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.5.1	Have the parameters required by the methodology / tools been correctly described in the PoA-DD? Where the methodology provides for selection between different options for data and parameters; is the choice of data and parameters justified?	<p>The parameters defined in methodology AMS-I.D. are correctly described in the PoA-DD/01/. However, since all proposed CPAs will be hydropower project, and the project emission is defined in AMS-I.D. to be calculated in line with methodology ACM 0002 (Version 13.0.0, EB67), parameters to determine project emissions should be listed. Some parameters to calculate the project emission defined by ACM 0002 are not stated in the parameters reported ex-ante in the GSP PoA-DD. Hence, CAR 2 is raised.</p> <p>The parameters to calculate the project emission defined by ACM0002 have been added in the PoA-DD, which is confirmed to be consistent with the methodology ACM0002 /09/.</p> <p>The validation team confirmed that the parameters required by the methodologies and tools have been correctly described in the PoA-DD and the choice of data and parameters is correctly justified.</p> <p>For further details please see the table above.</p>	CAR-2	OK
	Have the parameters required by the methodology / tools been correctly described in the generic CPA-DD?	<p>No. Some parameters to calculate the grid emissions factor in China are not included in the PoA-DD.---please refer to CL 9.</p> <p>The parameters to calculate the grid emission factor in China, such as $CAP_{Total,y}$, $CAP_{Thermal,y}$, $EF_{Coal,Adv,y}$ etc., have been added in PoA-DD.</p> <p>The validation team checked against the Notification on Determining Baseline Emission Factors for China Power Grids in 2011 /18/, China Electric Power Yearbooks (2008 to 2010) /14/ and China Energy Statistical Yearbook 2010 /14/</p>	CL-9	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		and confirmed its consistency. Hence, CL 9 is closed.		

8.5.2 Equations and calculations used to calculate emission reductions

The following steps are applied in the PoA-DD to determine emission reductions of proposed CPAs, in accordance with the methodology and tools applied:

Baseline emissions

According to the methodology AMS-I.D.(Version 17) –“Grid connected renewable electricity generation”

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Where

BE_y Baseline Emissions in year y (tCO₂)

$EG_{BL,y}$ Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO_2,grid,y}$ Combined margin CO₂ emission factor for grid connected power generation in year calculated using the “Tool to calculate the emission factor for an electricity system” (Version 02.2.1) (tCO₂/ MWh) y

For Greenfield renewable energy power plant, $EG_{BL,y} = EG_{facility,y}$

According to the requirement of AMS-I.D., the proposed PoA applied the steps of the Tool to calculate the emission factor for an electricity system/09/ to calculate the grid emission factor. The grid emission factor is calculated as a combined margin (CM) which is made up of the combination of operating margin (OM) and build margin (BM).

The DNA of the host country has published a delineation of the project electricity system and connected electricity systems, and these delineations are used in the PoA as required by the Tool to calculate the emission factor for an electricity system /10/.

As decided in the PoA-DD, the emission factor of the grids will be determined at the PoA level and ex-ante for the first 7 years crediting period. In accordance with Tool to calculate the emission factor for an electricity system/09/, the weights of the operating margin and the build margin are 0.5 :0.5.

The PoA-DD version for the Global Stakeholder Process was published for global consultation on 11 June 2012, and the calculation of the grid emission factor is calculated based on the latest data available at the time of validation. The most recent three years of data available at the time of PoA-DD submission (2007-2009) are used based on the China Electric Power Yearbooks/14/ and the China Energy Statistical Yearbooks/14/ and applied in the NDRC guidelines/18/.

For the emission factor of the CCPG:

Operating Margin (OM):

Method (a) (Simple OM) is used. This is appropriate since low-cost/must run resources constitute less than 50% of total grid generation in the average of the five most recent years (2005-2009). The Simple OM emission factor is calculated as the generation-weighted average emissions per electricity unit (tCO_{2e}/MWh) of all generating sources serving the system, excluding low operating cost and must-run power plants. The data on fuel consumption and net electricity generation of each power plant /unit in the grid is not publicly available; therefore the simple OM is calculated based on data on the total net electricity generation of all power plants serving the system and the fuel types and total fuel consumption of the project electricity system (option B). Aggregated generation and fuel consumption data are used as more disaggregated data are not available. Low-cost/must run power resources in the grid include only renewable power generation, and the quantity of electricity supplied to the grid by these sources is known. Off-grid power plants are not included in the calculation. Therefore, Option B is appropriate for calculating the Simple OM emission factor. Net calorific values of each fuel type were obtained from the China Energy Statistical Yearbook/14/, and IPCC 2006 default values at the lower limit of the uncertainty at a 95% confidence interval/15/. were used for the emission factor with a 100% oxidation factor for each type of fossil fuel. The values used and the calculation

of the simple OM is considered to be reasonable, and is in line with official data published by the China DNA/18/. The OM is calculated to be 1.0297 tCO₂/MWh.

Build Margin (BM):

Because plant specific fuel consumption and electricity generation data are not publicly available in China, the guidance given by the CDM Executive Board for a deviation from methodology AM0005 has been applied for calculation of the build margin (BM) emission factor for this project. In accordance with this guidance, the build margin consists of the set of power capacity additions in the electricity system that comprises 20% of the generation capacity (in MW) of the system that have been built most recently, based on the aggregate incrementally installed capacity of all generation sources in year y, and the aggregate incrementally installed capacity of all generation sources in year y-n, where n represents the number of years of historical data that need to be considered in order for the sample group to comprise 20% of the total system generation capacity (in MW). The emissions factor of fossil fuel fired power generation in the grid is calculated using the proportions of GHG emissions from solid, liquid and gaseous fuels in the total GHG emissions related to power generation as the weights, and the emission factors of the most advanced commercial generation technologies available in the host country (as published by the NDRC). Finally, the BM emission factor is calculated as the product of this emission factor of fossil fuel fired power generation and the proportion of fossil fuel fired power plants in the newly installed 20% capacity, based on data for years 2007-2009, contained in the power yearbooks 2008-2010 /14/. The sample group of capacity additions reached 31.65% of the total system generation capacity in the period 2007-2009. The BM is calculated as 0.4191 tCO₂/MWh.

The OM and BM of the connected regional grid system are calculated based on public and official data from the China Energy Statistical Yearbooks (2008-2010) /14/ and the China Electric Power Yearbooks (2008-2010) /14/. The weights ω_{OM} and ω_{BM} are selected as 0.5 and 0.5 respectively for the first crediting period of hydro projects according to the Tool to calculate the emission factor for an electricity system/10/. The combined margin is fixed ex-ante for the entire first crediting period.

Combined Margin (CM):

The combined margin emissions factor(grid emissions factor) for the CCPG is calculated as $EF_{CO_2,grid,y} = 0.5 * EF_{grid,OM,y} + 0.5 * EF_{grid,BM,y} = 0.5 * 1.0297 + 0.5 * 0.4191 = 0.7244$ tCO₂/MWh.

It is stated in the PoA-DD that the grid emission factor will be determined at the PoA level. Therefore, all included CPAs would apply 0.7244 as the grid emission factor for this crediting period.

Project emissions

This is a hydropower projects. The project emission of CH₄ from water reservoirs will exist if the power density of the project activity (PD) is not greater than 10W/m². It is clearly defined in the methodologies AMS-I.D and ACM 0002.

- If the power density of the single or multiple reservoirs (PD) is greater than 4 W/m² and less than or equal to 10 W/m²

$$PE_{HP,y} = \frac{EF_{Res} * TEG_y}{1000}$$

Where:

$PE_{HP,y}$ = Project emissions from water reservoirs (CH₄, tCO₂e/yr)

EF_{Res} = Default emission factor for emissions from reservoirs of hydro power plants in year y (kgCO₂e/MWh)

TEG_y = Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads, in year y (MWh)

- If the power density of the project activity (PD) is greater than 10W/m², $PE_{HP,y} = 0$.

The power density of the project activity (PD) is calculated as follows:

$$PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where:

PD= Power density of the project activity (W/m²)

Cap_{PJ}= Installed capacity of the hydro power plant after the implementation of the project activity (W).

Cap_{BL}= Installed capacity of the hydro power plant before the implementation of the project activity (W). Given that all qualified CPAs would be new hydro power plants as per the eligibility criteria, this value is zero for all CPAs.

A_{PJ}= Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²)

A_{BL}= Area of the reservoir measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). Given that all qualified CPAs would apply new reservoirs as per the eligibility criteria, this value is zero for all CPAs.

Since the parameters Cap_{PJ} and A_{PJ} would vary at the CPA level, the project emission for each CPA would be determined at the CPA level.

Leakage

According to AMS-I.D. (Version 17), no leakage need to be taken into account on CPAs which are all Greenfield projects without any power generating equipments transfer. The proposed CPA will be a Greenfield project guaranteed by the eligibility criteria.

Therefore, for all qualified CPAs, LE_y = 0

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
8.5.2	Has the PP correctly applied all relevant calculations as required by the methodology and associated tools? Is it fully explained how the procedures provided in the Methodology and applicable Tools are applied by the proposed PoA? (i.e. Are the required steps clearly followed?)	The validation team has reviewed section B.6.3 of the generic CPA part of the POA-DD against the applied methodology. The PP has correctly applied calculations of baseline emissions and emission reductions of the CCPG as required by the methodology. However, The calculation procedure and value of the combined margin emissions factor for the NWCPG and CSPG are not provided in the GSP PoA-DD. Please refer to CL 10. The geographical boundary of the PoA was revised to include only Sichuan province, which is consistent with the Chinese LoA. Thus, all CPAs will supply electricity to the CCPG, and so the NWCPG and CSPG are not applicable to the CPAs included in the PoA. The validation team has reviewed section B.6.3 of the generic CPA part of the POA-DD against the methodology AMS-I.D./09/. The PP has correctly applied calculations of baseline emissions and emission reductions as required by the methodology.	CL-10	OK
	Where the methodology or tool(s) provides for selection between different options for equations; is every choice of options for calculating project emissions, baseline emissions and leakage offered by the methodology correctly justified in the context of the PoA and baseline scenario?	The calculation procedure and value of the combined margin emissions factor for the NWCPG and CSPG are not provided in the GSP PoA-DD. Please refer to CL 10. The geographical boundary of the PoA was revised to include only rural areas of Sichuan province. Thus, the NWCPG and CSPG are not applicable to the CPAs included in the PoA. Therefore, CL 10 is closed. The simple OM method (Option a) is selected by the PDD because low-cost/must-run resources constitute less than 50% of total grid generation, and data from 2005 to 2009 are used as the five most recent years/14/. Option B of simple OM is selected because necessary data for Option A is not available and only nuclear and renewable power generation are considered as low-cost/must-run power sources and the quantity of electricity supplied to the grid by these sources is known/14/; and off-grid power plants are not included in	CL-10	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>the calculation.</p> <p>Ex ante option is selected for both OM and BM calculation.</p> <p>It's confirmed that all the choice of options for calculating project emissions, baseline emissions and leakage offered by the methodology correctly justified in the context of the project activity and baseline scenario.</p>		
	Are the formulae required for the determination of project emissions, baseline emissions and leakage correctly presented in a complete and transparent manner, enabling a complete identification of parameters to be used and / or monitored?	Yes, the formula required for the determination of emission reductions were verified to be in line with AMS-I.D. (version 17), ACM0002(version 13.0.0)/9/, and the "Tool to calculate the emission factor for an electricity system"/10/, which was deemed to be reasonable and acceptable by ERM CVS.	OK	OK
	If applicable, are detailed calculations provided in a traceable spreadsheet showing relevant information?	Yes, the calculation of emission reductions /28/ can be replicated using the data and parameters supplied in the PoA-DD which was verified by ERM CVS.	OK	OK

Conclusion

The PoA-DD correctly applies the methodology and appropriate tools to provide a framework for calculating the emission reductions of a typical CPA. All assumptions and data used are properly listed, including references and sources where applicable. Since all qualified CPAs will be greenfield projects without any power generating equipment transfer, no leakage need to be taken into account on CPA level. The grid emission factor will be determined at the PoA level and detail calculation of actual baseline and project emissions will be made only at CPA level.

9 Validation findings – Additionality

As per the VVS sections 8.4 and the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities', ERM CVS assessed the PoA-DD to determine whether it clearly describes how the proposed CDM PoA is additional, as supported by sufficient and appropriate evidence. In accordance with the standard, additionality must be demonstrated for the POA as a whole, and it must be demonstrated that each of the individual CPAs are additional. As per the CDM Project Standard, the CME must demonstrate that the proposed CDM PoA is additional in accordance with the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities". A full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria.

As per the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities', additionality of a PoA must be demonstrated by establishing that in the absence of CDM, none of the implemented CPAs would occur. PoAs that will include one or more micro-scale projects as CPA shall include eligibility criteria derived from all the relevant requirements of the 'Guidelines for demonstrating additionality of micro-scale project activities'. PoAs that will include one or more small-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of the Guidelines on the demonstration of additionality of small-scale project activities. PoAs that will include one or more large-scale projects as CPA shall include eligibility criteria derived from all the relevant requirements contained in the additionality section of the large-scale methodology(ies).

ERM CVS has validated the additionality of the PoA as a whole and that the PoA-DD includes adequate eligibility criteria to ensure the additionality of individual CPAs, as per the CDM project standard. ERM CVS has ensured that all relevant additionality guidelines set out in the approved methodology and tools have been included within the CPA eligibility criteria. ERM CVS assessed and verified the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by the PPs to support the demonstration of additionality in order to critically assess the presented evidence, using local knowledge and sectoral and financial expertise.

In undertaking this aspect of the validation, ERM CVS considered tools and documents provided by the CDM Executive Board to demonstrate the additionality of proposed CDM PoA, as well as specific complementary or alternative requirements included in the approved CDM methodology.

In the sections below, ERM CVS describes all steps taken, and sources of information used, to cross-check the information contained in the PoA-DD on additionality. Where appropriate, we describe how the validation team determined that the documentation assessed is authentic.

9.1 Prior consideration of the CDM

As per VVS, Version 3.0 /08/, the assessment of prior consideration of the CDM for the PoA could apply the provisions of paragraph 194&107 in VVS.

The start date of the PoA is determined as the date of the GSP, i.e. 11 June 2012, which is after 02 August 2008. Since the PoA and any components had not started when the PoA-DD was published for GSP on 11 June 2012, the PP did not need to submit notifications about CDM prior consideration.

Based on site-visiting and eligibility criteria set in the PoA-DD, ERM CVS accepted that the start date for this PoA is 11 June 2012 and all CPAs would be on or after the start date of this PoA. ERM CVS also confirmed that the CDM was appropriately considered in the decision to implement the PoA as per the requirement of VVS, Version 3.0 /08/.

9.2 Additionality of the PoA as a whole

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.2.1	Has the CME demonstrated that in the absence of the CDM either: (i) the proposed voluntary measure would not be implemented, or	The confirmation of voluntary action was appropriately described in the PoA-DD, which is crosschecked through interviews with the local authorities /IV3/ & /IV4/ and the CME /IV1/. There are no mandatory requirements in China requiring the use of hydro power for electricity generation. Although the Renewable Energy Law/16/ has been in effect since 01/01/2006, which is aimed at making the plan and industry guidance and promotion measures for the development of all renewable energy(including	CL-11	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	<p>(ii) the mandatory policy/regulation would be systematically not enforced and that non-compliance with those requirements is widespread in the country/region, or</p> <p>(iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy /regulation.</p>	<p>hydro, wind, solar, geothermal and biomass etc.), detailed promotion measures for hydro power are not issued yet. This has been confirmed by cross checking through interviews with the local authorities /IV3/ & /IV4/ and the CME /IV1/.</p> <p>Therefore the PoA is confirmed to be a voluntary coordinated action.</p> <p>Since the additionality demonstration of the PoA is not clearly stated as a whole, hence CL 11 is raised.</p> <p>As per the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities' /12/ additionality of a PoA must be demonstrated by establishing that in the absence of CDM, none of the implemented CPAs would occur.</p> <p>It is updated in the revised PoA-DD that the PoA is a voluntary action and no CPA will be implemented in the absence of the PoA.</p> <p>The validation team checked above description against the host country LoA/03/ and found consistency.</p>		

9.3 Identification of alternatives

The approved methodology AMS-I.D. prescribes the baseline scenario and no further analysis is required. The methodology defines the baseline as the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

9.4 Assessment of additionality of a CPA

As per the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities", a full additionality assessment is not required in the context of CPA. Instead, the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria. ERM CVS has validated whether compliance with the additionality-related eligibility criteria set in the PoA design document will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
9.4.1	Does the description of assessment of CPA additionality correctly follow the methodology and relevant tool(s) and guidance?	<p>The description of assessment of CPA additionality is in consistent with the methodology and relevant guidelines. The validation team has checked against it with the applied methodology AMS-I.D, the Guidelines on the demonstration of additionality of small-scale project activities, and the Guidelines for demonstrating additionality of micro-scale project activities, and confirmed the consistency.</p> <p>However, the version of the guidelines for demonstrating additionality of micro-scale project activities has been updated to 04.0. Please refer to CL 4 in the Appendix B.</p> <p>The correction has been made in the PoA-DD to be in line with the guidelines for demonstrating additionality of micro-scale project activities (version 04.0)/12/. Hence, CL 4 is closed.</p> <p>The description of assessment of CPA additionality is in consistent with the methodology and relevant tools. The validation team has checked against the applied methodology AMS-I.D /09/, Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version 02.1) /10/, "Guidelines on the demonstration of additionality of small-scale project activities" (version 9.0), EB68 Annex27/11/</p>	CL-4	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		and guidelines for demonstrating additionality of micro-scale project activities (version 04.0) /12/ and confirmed the consistency.		

The additionality for a specific CPA will be assessed at CPA level when the CPA is applied to be included.

Detailed demonstration is as follows:

1. For CPAs up to five megawatts located in a special underdeveloped zone (SUZ) of the host country defined as per the guidelines for demonstrating additionality of micro-scale project activities (Version 4.0), the assessment and demonstration of additionality will be conducted as per the requirements of the guidelines for demonstrating additionality of micro-scale project activities (Version 04.0, EB68) /12/.

As per the guidelines for demonstrating additionality of micro-scale project activities (Version 04.0, EB68)/12/, if the installed capacity of the CPA is no more than 5MW and the geographic location of the project activity is in one of the least developed countries or the small island developing States (LDCs/SIDS) or in a special underdeveloped zone (SUZ) of the host country, the project activity will be additional automatically.

The identification of SUZ should follow:

- a. SUZ is a region in the host country (zone, municipality or any other designated official administrative unit) identified by the Government in official notifications for development assistance including for planning, management, and investment satisfying any one of the following conditions using most recent available data: The proportion of population with income less than USD 2 per day (PPP) in the region is greater than 50%; The GNI per capita in the country is less than USD 3000 and the population of the region is among the poorest 20% in the poverty ranking of the host country as per the applicable national policies and procedures;
- b. In cases where, based on the recommendation of the designated national authority of the host country, the SUZ in the host country has been approved by the Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM), the list of such SUZ shall be maintained on the UNFCCC website (e.g. at <<http://cdm.unfccc.int/DNA/submissions/index.html>>). In the case of these SUZ listed on the CDM website there is no need for the project proponents to provide proofs as indicated in paragraph 2 (a) above.

2. For the CPA >5 MW and ≤15MW or CPA<5MW but not in a SUZ identified as per the guidelines for demonstrating additionality of micro-scale project activities (Version 04.0) /12/, the assessment and demonstration will be conducted as per the latest guidelines on the demonstration of additionality of small-scale project activities /11/. The PoA requires that an investment barrier should be demonstrated, by means of an investment analysis in line with the latest guidelines on the assessment of investment analysis /12/ and any other relevant guidance from the board pertaining to investment analysis..

The PoA-DD further specifies that a benchmark analysis should be used, and that a post-tax project IRR be used as the indicator for comparison. The post-tax project IRR determined in the PoA-DD is 10%, which is confirmed to be provided by the host country government in the document Economic evaluation code for small hydropower projects /28/, which is specific for small hydropower projects and is widely applied in the host country.

The PoA-DD requires that a sensitivity analysis should be carried out. Four factors should be included in the following sensitivity analysis:

- 1) Static total investment;
- 2) Annual operation and maintenance (O&M) cost;
- 3) Electricity tariff;
- 4) Annual electricity output.

The typical range of the sensitivity analysis is chosen to be -10%~10% as per the guidelines on the latest assessment of investment analysis /12/.

The PoA-DD defines that the CPA is additional if both of the conditions below are satisfied:

1. Without income from selling CERs, the project post-tax IRR of the project is lower than the benchmark IRR 10%;
2. +/- 10% variation in any of the 4 parameters does not lead to the IRR reaching the benchmark.

This is considered to be reasonable and in line with all relevant guidance from the CDM EB, such as the guidelines on the assessment of investment analysis and the VVS.

Conclusion

The PoA-DD includes a clear framework, through the eligibility criteria, to ensure that proposed CPAs are additional. CPAs will be required to demonstrate additionality through a full investment analysis process, through benchmark analysis using a post-tax project IRR assessment and sensitivity analysis. This is considered a thorough and rigorous assessment of additionality that is sufficient to ensure proposed CPAs are genuinely additional before their inclusion in the PoA. The appropriate guidance and requirements on investment analysis from the CDM EB have been considered and followed in the PoA-DD description. Additionality of proposed CPAs must be validated by the DoE at the time of inclusion, based on the criteria set out in the PoA-DD. The means of demonstrating additionality through investment analysis is verifiable and objective and therefore is accepted.

10 Validation Findings – Operational, management and monitoring plan for the programme of activities

ERM CVS has validated the competencies of the CME in accordance with the 'Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities'. According to the requirements, the CMEs shall have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. ERM CVS has validated the management system as developed and implemented by the CME as follows.

10.1 Operation and Management Plan

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.1.1	Has the CME demonstrated that there is an operational and management system for the implementation and management of the PoA?	Yes. It is stated in the PoA-DD that the CME is developing a management system for operating, managing and monitoring the PoA and all CPAs included. The validation team have checked the draft documents, including the CVs of the CME's key personnel, the definition of roles and responsibilities of personnel, procedure to avoid double accounting, record and documentation control process.	OK	OK
10.1.2	Does the operational and management system include clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies?	Yes. A clear definition of roles and responsibilities of personnel involved is stated in the operational and management plan in Section C in PoA-DD. The validation team have checked the competencies of related personnel on-site with the CME.	OK	OK
10.1.3	Does the system include records of arrangements for training and capacity development for personnel?	<p>Section C of the GSP PoA-DD (version 1.0) does not include the following aspects:</p> <p>(a) Records of arrangements for training and capacity development for personnel;</p> <p>(b) Procedures for technical review of inclusion of CPAs;</p> <p>I Measures for continuous improvements of the PoA management system;</p> <p>Hence, CL 12 is raised.</p> <p>The system including records of arrangements for training and capacity development for personnel has been added in the section C of the PoA-DD.</p> <p>It is stated in the revised PoA-DD raining specific content and specific material (if applicable) will be adapted to each specific CPA, according to the technical specifications of each CPA, and to the characteristics of the equipment installed at each facility. It may be carried-out by the staff actively involved in this PoA, or by the CPA Manager.</p> <p>Training and capacity development activities will be carried out annually by the CME. It includes (but is not limited to) the following aspects:</p> <ul style="list-style-type: none"> - CDM general information - Eligibility criteria for inclusion of a CPA in the PoA - Importance of monitoring in the context of a CPA/PoA - Data recording 	CL 12	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<ul style="list-style-type: none"> - Meter/instrument calibration - Recording events - Reporting monitoring deficiencies and communication to the CME <p>Therefore, CL 12 is closed.</p> <p>The validation team checked the arrangements for training and capacity development for personnel in the section C of the revised PoA-DD against the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /10/ and confirmed that is clearly, appropriate and sufficiently objective.</p>		
10.1.4	Does the system include procedures for technical review of inclusion of CPAs?	<p>Please refer to CL 12.</p> <p>The system including procedures for technical review of inclusion of CPAs has been added in the section C of the PoA-DD.</p> <p>It is stated in the revised PoA-DD that the CME is responsible for technical review of inclusion of CPAs and the steps for the technical review of inclusion CPAs are shown in the revised PoA-DD as follows:</p> <ul style="list-style-type: none"> - CPA Manager prepares project documentation and checks if assumptions and parameters applied and relevant sheets are consistent and justified by sources transparently. - The PoA Manager does a first quality check of all the documentation submitted by the CPA Manager. If corrections are needed, the PoA Manager coordinates with the CPA Manager to take action before submission to the Technical Director. - Quality Manager checks deliverables and comment on open issues. Commented documents are sent back to the PoA Manager and to the CPA Manager if necessary. Such cycle might be repeated several times until sufficient quality is met. - The Technical Director checks the outcome and agrees with PoA Manager and Quality Manager. <p>It is also stated in the revised PoA-DD that all following technical documentation will be requested for technical review of inclusion of CPAs:</p> <ul style="list-style-type: none"> • FSR/PDR • Environmental Impact Assessment Report (EIAR) • others documents related the CPA <p>The validation team checked the procedures for technical review of inclusion of CPAs in the section C of the revised PoA-DD against the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /10/ and confirmed that the procedure is clearly, appropriate and sufficiently objective.</p> <p>Therefore, CL 12 is closed.</p>	CL 12	OK
10.1.5	Does the system include a procedure to avoid double counting (e.g. to avoid the case of including a new CPA	<p>Yes. An electronic database and relevant checking steps will be used to perform a double counting check.</p> <p>It is stated in the PoA-DD that the electronic database will include two tables in</p>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	that has already been registered either as a CDM project activity or as a CPA of another PoA)?	<p>excel spreadsheet: all registered and requesting registration PoA in China will be shown in table-A and all CDM hydropower projects in Sichuan Province will be shown in table-B.</p> <p>Furthermore, a separate folder will be designated to each project listed in the excel spreadsheet to record documents downloaded from the UNFCCC website, such as PDD, PoA-DD, CPA-DD and FVR etc.</p> <p>The Quality Manager of CME is responsible for continue updating the CDM database based on the information from the UNFCCC website. The Technical Director will crosscheck that.</p> <p>The Quality Manager will check the table-A and table B to avoid the case of including new CPAs that have been already registered as CPA of other PoA and the case of including new CPA that has been already registered as CDM project activity respectively.</p> <p>Moreover, the CPA implementers will be made aware of the double counting principle and will certify whether the proposed CPA is registered under the Clean Development Mechanism of the UNFCCC. If such a case occurs, then the coordinating entity would not proceed with inclusion of the corresponding CPA in the PoA.</p> <p>The validation team checked the procedure to avoid double counting in the revised PoA-DD against the latest guidelines and other requirements from EB and confirmed that the procedure is clearly, appropriate and sufficiently objective.</p>		
10.1.6	Does the system include records and documentation control process for each CPA under the PoA?	<p>Yes. It is stated in the PoA-DD that an electronic database with the information for each CPA that seeks to be included to the PoA will be set up and maintained.</p> <p>As stated in the PoA-DD, the following information (but not limited) will be recorded in the electronic database:</p> <ul style="list-style-type: none"> a. Identification number and name of the CPA; b. Contact detail of the implementing entity, including contact person, address, telephone and email; c. Installed capacity of each activity under the CPA; d. Annual electricity output (MWh/yr) during the credible period; e. Location and geographic coordinates of each activity under the CPA. <p>Moreover, each CPA under this PoA will have a separate folder, including CPA-DD, IRR spreadsheet, monthly monitoring records and other monitoring documents.</p> <p>The records and documentation control process is also stated clearly in the Section C of the PoA-DD/01/. The validation team have checked it with on-site interview with the CME to confirm that CPA manager, PoA manager, Quality manager and Technical director are all involved in this control process and have their responsibility.</p> <p>The validation team checked the records and documentation control process for each CPA under the PoA in the revised PoA-DD against the latest guidelines and other requirements from EB and confirmed that the procedure is clearly, appropriate and sufficiently objective.</p>	OK	OK
10.1.7	Does the system include measures for continual	Please refer to CL 12.	CL 12	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	improvements of the PoA management system?	<p>The measures for continual improvements of the PoA management system have been added in the section C of the revised PoA-DD.</p> <p>Continuous review and improvement of the PoA management system will be carried out by annually review and continuous improvement process. The details for the annual review checking list and continuous improvement process are clearly shown in the revised PoA-DD.</p> <p>The validation team checked the measures for continual improvements of the PoA management system in the section C of the PoA-DD against the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /10/ and confirmed that is clearly, appropriate and sufficiently objective.</p> <p>Therefore, CL 12 is closed.</p>		

Conclusion

ERM CVS has assessed the operational and management arrangements which have been established by the CME in order to determine that these arrangements are suitable for the PoA being validated. The arrangements are considered to be sufficient to ensure that the CME will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme.

10.2 PoA Sampling Plan

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
10.2.1	<p>Has the CME chosen to produce a sampling method/procedure for use by DOEs rather than have all CPAs verified?</p> <p>If so is the method statistically sound and suitable for the PoA?</p>	<p>The conditions related to sampling requirements for a PoA are not included in the GSP PoA DD. Hence, CL 6 is raised.</p> <p>The criteria eligibility has been updated and clearly described.</p> <p>It is stated in the updated eligibility criteria of the PoA-DD that each CPA will be verified individually. Thus sampling and surveys are not applicable. CL 6 is closed.</p> <p>The validation team confirmed that it would be required by the eligibility criteria that no sampling would be employed in this PoA.</p>	CL-6	OK

Conclusion

The validation team confirmed that it would be required by the eligibility criteria that no sampling would to be employed in this PoA.

11 Validation Findings - Monitoring plan of a Typical CPA

ERM CVS evaluated the monitoring plan for the PoA and typical CPA to ensure that it is based on the approved monitoring methodology that has been applied. As per the VVS, ERM CVS applied a two-step process, based on review of the documented procedures, interviews with relevant personnel, project plans and any physical inspection, to assess:

- a) *Compliance of the monitoring plan with the approved methodology:*
 - (i) By means of document review, identify the list of parameters required by the selected approved methodology;
 - (ii) Confirm that the monitoring plan contains all necessary parameters, that they are clearly described and that the means of monitoring described in the plan complies with the requirements of the methodology.
- b) *The Implementation of the monitoring plan, taking into account:*
 - (i) Whether the monitoring arrangements described in the monitoring plan are feasible within the typical CPA design;
 - (ii) Whether the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed CPAs and PoA can be reported ex post and verified.

11.1 Compliance of the monitoring plan with the approved methodology

ERM CVS validated whether the monitoring plan for a generic CPA in the PoA-DD includes all parameters necessary for monitoring of this type of project in accordance with the approved methodology that has been applied for the typical CPA. ERM CVS checked whether the parameters are clearly described and the means of monitoring described in the plan complies with the requirements of the methodology.

11.1.1 Completeness of monitoring parameters

The monitoring parameters required by the methodology and applicable tools are:

Parameter Name	Parameter Description	Is the parameter appropriately included in the Monitoring Plan? (including justification and substantiation of information, data and evidence)
$EG_{facility,y}$	Quantity of net electricity supplied to the grid in year y.	Yes, the parameter is appropriately included in the monitoring plan. The parameter is required by AMS-I.D./09/, and has been explained in section B.7.1 of the PoA-DD/01/. It will be measured by electricity meters installed for each activity. All the data will be continuously measured and monthly recorded.
Cap_{PJ}	Installed capacity of the hydro power plant after the implementation of the project activity.	Yes, the parameter is appropriately included in the monitoring plan. The parameter is required by AMS-I.D. and calculated as per the procedure of ACM0002 to calculate project emissions from reservoirs, and has been explained in section B.7.1 of the PoA-DD/01/. It will be measured yearly on project site.
A_{PJ}	Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full.	Yes, the parameter is appropriately included in the monitoring plan. The parameter is required by AMS-I.D. and calculated as per the procedure of ACM0002 to calculate project emissions from reservoirs, and has been explained in section B.7.1 of the PoA-DD/01/. It will be measured yearly on project site.
TEG_y	Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal	No. Please refer to CAR 2. The parameter TEG_y has been appropriately included in the monitoring plan in the revised PoA-DD. Hence, CAR 2 is closed.

Parameter Name	Parameter Description	Is the parameter appropriately included in the Monitoring Plan? (including justification and substantiation of information, data and evidence)
	loads, in year y	The parameter is required by AMS-I.D. and calculated as per the procedure of ACM0002 to calculate project emissions from reservoirs, and has been explained in section B.7.1 of the PoA-DD/01/. It will be measured continuously measured and monthly recorded.
$EG_{PJ \text{ to } CCPG, y}$	Quantity of electricity delivered to the CCPG by the proposed project through the main line in year y	Yes, the parameter is appropriately included in the monitoring plan. The parameter is not required by the methodology. However it is required by the CME for this PoA and explained in section B.7.1 of the PoA-DD/01/. It will be measured by electricity meters installed for each CPA. All the data will be continuously measured and monthly recorded.
$EG_{backup, y}$	Quantity of electricity delivered to the project plant from the CCPG through the backup line in emergency.	Yes, the parameter is appropriately included in the monitoring plan. The parameter is not required by the methodology. However it is required by the CME for this PoA and explained in section B.7.1 of the PoA-DD/01/. It will be measured by electricity meters installed for each CPA. All the data will be continuously measured and monthly recorded.
$EG_{CCPG \text{ to } PJ, y}$	Quantity of electricity imported from the CCPG to the proposed project through the main line in year y.	Yes, the parameter is appropriately included in the monitoring plan. The parameter is not required by the methodology. However it is required by the CME for this PoA and explained in section B.7.1 of the PoA-DD/01/. It will be measured by electricity meters installed for each CPA. All the data will be continuously measured and monthly recorded.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.1.1	Are all required parameters included in the monitoring plan?	<p>The emission sources defined in the methodology, which refers to methodology ACM 0002/09/, are not stated correctly in the generic CPA-DD. Furthermore the relevant data and parameters reported ex-ante and monitored required by ACM 0002/09/ for project emission sources are not stated in the PoA-DD.</p> <p>Please refer to CAR 2</p> <p>The parameter TEGy has been appropriately included in the monitoring plan. Hence, CAR 2 is closed. This parameter is required by AMS-I.D. and calculated as per the procedure of ACM0002 to calculate project emissions from reservoirs, and has been explained in section B.7.1 of the PoA-DD/01/.</p> <p>The validation team confirmed that all required parameters appropriately were included in the monitoring plan and monitored in accordance with the methodology AMS-I.D./09/ and ACM0002 /09/(including applicable tools).</p> <p>As the $EG_{facility, y}$ is calculated by the $EG_{PJ \text{ to } CCPG, y}$ minus $EG_{backup, y}$ minus $EG_{CCPG \text{ to } PJ, y}$, the parameter $EG_{PJ \text{ to } CCPG, y}$, $EG_{backup, y}$ and $EG_{CCPG \text{ to } PJ, y}$ are also included in the monitoring plan. These parameters are not required by the methodology but required by the CME for this PoA for the calculation of $EG_{facility, y}$ and explained in section B.7.1 of the PoA-DD/01/. The validation team confirmed that these parameters were appropriately included in the monitoring plan.</p>	CAR-2	OK

Conclusion

The monitored parameters included in the monitoring are complete and appropriate for monitoring of the typical CPA. In ERM CVS's opinion, the PPs are able to implement the monitoring plan.

11.1.2 Compliance of monitoring

For each parameter, ERM CVS has validated whether it has been addressed in accordance with the baseline and monitoring methodology.

Monitored Parameters	$EG_{facility, y}$	Cap_{PJ}	A_{PJ}	TEG_y	$EG_{PJ \text{ to } CCPG, y}$	$EG_{backup, y}$	$EG_{CCPG \text{ to } PJ, y}$
Parameter Description correct?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Description in line with methodology?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Data unit correctly expressed?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Measurement method correctly described?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Measurement and recording frequency correctly described?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Correct reference to standards?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
Indication of accuracy provided?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
QA/QC procedures described?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes
QA/QC procedures appropriate?	Yes	Yes	Yes	CAR-2 Yes	Yes	Yes	Yes

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.1.2	Are all required parameters appropriately monitored in accordance with the methodology (including applicable tools)?	<p>The emission sources required by the methodology, which refers to methodology ACM 0002, are not stated correctly in the generic CPA-DD. Furthermore the relevant data and parameters reported ex-ante and monitored required by ACM 0002 for project emission sources are not stated in the PoA-DD.</p> <p>Please refer to CAR 2</p> <p>The TEG_y has been appropriately included in the monitoring plan. Hence, CAR 2 is closed. This parameter is required by AMS-I.D. and calculated as per the procedure of ACM0002 to calculate project emissions from reservoirs, and has been explained in section B.7.1 of the PoA-DD/01/.</p>	CAR-2	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		<p>Hence, CAR 2 is closed.</p> <p>The validation team confirmed that all required parameters appropriately were included in the monitoring plan and monitored in accordance with the methodology AMS-I.D. and ACM 0002/09/ (including applicable tools).</p>		

Conclusion

The means of monitoring all relevant monitored parameters for a typical CPA complies with the requirements of the methodology, including applicable tools.

11.2 Implementation of the monitoring plan

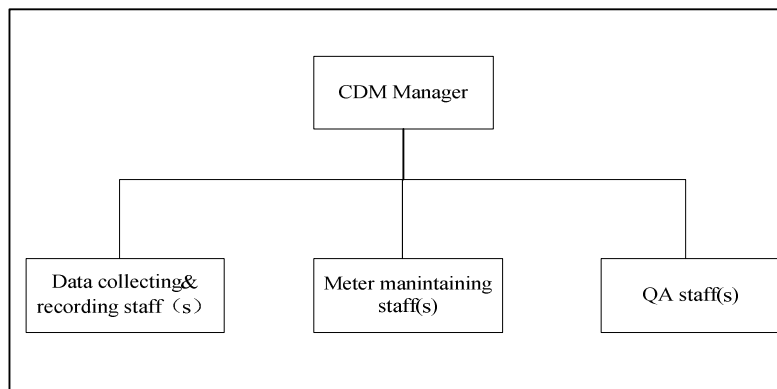
ERM CVS evaluated the feasibility and sufficiency of the monitoring plan for a typical CPA. The key components of the monitoring plan are as follows.

Operational and management structure:

The CME will act as the overall supervisor of the PoA, preparing the operation and monitoring manual for CPAs, calculating emission reductions and preparing monitoring reports periodically to the DOE.

The CPA implementers will undertake the monitoring of CPA operations including employee training, data collection and report to the CME periodically.

The structure of the monitoring group is shown as follows:



All other CDM monitoring staff of the CPA implementer will have clearly defined roles and responsibilities. The CDM Manager of the CPA implementer will perform the processes of training new staff and ensuring trained staffs performing the monitoring duties properly.

Monitoring subject of the CPA implementer

The main data will be monitored including:

$EG_{PJ \text{ to } CCPG, y}$: Quantity of electricity supplied by the project plant to the CCPG through the main line in year y

$EG_{CCPG \text{ to } PJ, y}$: Quantity of electricity supplied to the project plant from the CCPG through the main line in year y .

$EG_{\text{backup}, y}$: Quantity of electricity delivered to the project plant from the CCPG through the backup line in emergency.

The net power delivered to the CCPG by the proposed project in year(s) y ($EG_{\text{facility}, y}$) is equal to

$$EG_{\text{facility},y} = EG_{\text{PJ to CCPG},y} - EG_{\text{CCPG to PJ},y} - EG_{\text{backup},y}$$

Furthermore, surface area at full reservoir level (A_{PJ}) will be monitored yearly and Cap_{PJ} will be checked yearly by the nameplate.

Monitoring equipment and installation at the CPA level:

The electricity generated by the proposed project will be boosted, and then delivered to grid through Substation by the transmission line. The accuracy of the meters will be no lower than 0.5. The metering equipment will be properly calibrated annually according to the relevant industrial standard DL/T448-2000/26/.

Data collecting by the CPA implementer

The monitoring steps of the electricity delivered to the grid are listed as the following:

The CPA implementer will record readings (including the export electricity and import electricity) of the metering equipment at the fixed time of every month;

The CPA implementer will calculate net electricity delivered to the grid based on the meter's reading record;

The conservative data between the records from meter readings and sale receipts will be used as the net electricity produced by the proposed project ($EG_{\text{facility},y}$);

The CPA implementer will provide DOE with the meter records as well as the sale receipts for verification.

The surface area of the reservoir (A_{PJ}) will be monitored annually by a qualified and independent third-party. The report issued by this third-party will be presented to the DOE during verification.

The installed capacity after the implementation of the proposed project (Cap_{PJ}) will be checked yearly by the nameplate after operation.

Data Quality Control:

Quality control is to ensure the accuracy of data collected through measures including periodic calibration of monitoring meters, corrective actions, and internal audits. CME should ensure data consistency and accuracy before transferring data to the data management unit.

The metering equipments should be maintained properly and calibrated yearly according to relevant industrial standard by authorized third party to ensure the accuracy.

All CDM monitoring staff will have clearly defined roles and responsibilities. The CDM Manager of the CPA implementer will perform the processes of training new staff and ensuring trained staffs performing the monitoring duties properly.

If the reading of the main meter(s) in a certain month is so inaccurate as to be out of the error range or the meter does not work normally, the grid-connected generation shall be worked out by using the following measures:

- a) To read the data of the backup meter.
- b) To see the electricity sale receipts.
- c) Or the project owner and the grid company shall prepare jointly and approve a correct reading estimation report, otherwise the emission of the project during the period of the main meter and its backup meter both failing to operate will be estimated as zero.

Training and Monitoring Personnel:

All people that participate in the monitoring process will be suitably qualified and trained in the operation and maintenance of the plant. They will also receive a training session on the application of the monitoring plan.

Training and Monitoring Personnel:

The CPA implementer will annually prepare a monitoring report which will include among others metering values of power supplied to and received from the grid, copies of sales/billing receipts, a report on calibration and a calculation of emission reductions.

Monitoring reports will be prepared and submitted to the DOE for verification by the CME.

Feasibility of the monitoring plan:

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
11.2.1	<p>Are the arrangements described in the plan feasible and practical? Please consider:</p> <p>(a) operational and management structure, including responsibilities</p> <p>(b) Plans for maintenance and calibration of equipment</p> <p>(c) Plans for QA/QC of equipment and data</p> <p>(d) Installation of monitoring equipment (whether in place, or planned)</p>	<p>a) All CDM monitoring staffs of the CPA implementer have been clearly defined for their roles and responsibilities. The validation team checked the operational and management structure including responsibilities against the requirements of the methodology/09/ and standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities /10/and confirmed that is clearly, appropriate and sufficiently objective.</p> <p>b) The equipment setup is considered sufficient to carry out the monitoring requirements of the methodology, and the appropriate industrial standard DL/T448-2000 has been followed. Calibration and maintenance plans are appropriate. This has been cross checked against the Technical administrative code of electric Energy metering DL/T 448-2000 /26/.</p> <p>c) The data management and QA/QC procedures set in the generic CPA-DD are considered appropriate to fulfil the monitoring requirements of the methodology and to ensure that emission reductions can be verified. The emergency procedure was confirmed to be set appropriately in the generic CPA-DD.</p> <p>d) The accuracy level of the meters is clearly described in the monitoring plan of the generic CPA-DD. This has been cross checked against the Technical administrative code of electric Energy metering DL/T 448-2000 /26/. However, the location of the meters will be fixed at the real CPA level.</p> <p>The validation team check the arrangements described in the monitoring plan against the Guidelines for completing the programme design document form for small-scale CDM programme of activities, Version 02.0, EB67 Annex 30//, and confirmed that the monitoring plan was feasible and practical within the project design.</p>	OK	OK

Conclusion

Based on the validation activities performed, ERM CVS concludes that:

- (a) The monitoring plan for a typical CPA is fully in compliance with the requirements of the methodology;
- (b) The monitoring arrangements described in the monitoring plan are feasible within the design of a typical CPA;
- (c) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the typical CPA can be reported ex post and verified.

The assessment conducted by ERM CVS is by means of review of the documented procedures, interviews with relevant personnel, and a visit to the site of the first real case CPA.

12 Validation Findings – Sustainable Development, Local Stakeholder Consultation and Environmental Impact

12.1 Sustainable Development

As per VVS section 8.4, ERM CVS evaluated whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM PoA to the sustainable development of the host Party.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
12.1.1	Does the LOA from the Host Party confirm that the PoA contributes to the sustainable development of that country?	<p>CAR 1 was raised due to lack of host country LoA.</p> <p>After the host country LoA /03/ and MoC /04/ were provided and reviewed. CAR 1 is closed.</p> <p>Yes. The LoA from the Host Party confirm that the project activity contributes to the sustainable development of that country, which has been checked by the validation team against the LoA /03/.</p>	CAR-1	OK

12.2 Local Stakeholder Consultation

The stakeholder consultation will be conducted on a CPA level. This is appropriately described in the PoA-DD.

12.3 Environmental Impacts

Environmental impacts are assessed on a CPA level. This is appropriately described in the PoA-DD.

12.4 Public funding

ERM CVS also evaluated whether the information relating to public funding in the PoA-DD Annex 2 has been correctly presented.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
12.4.1	If the PoA involves public funding from an Annex 1 country, have the annex 1 parties involved provided an affirmation that such funding does not result in a diversion of official development assistance?	N/A. There is no public funding from an Annex 1 country to support the PoA. The validation team has confirmed it with on-site interview with the CME and local authorities.	N/A	N/A
	Is the information provided on public funding (PoA-DD, Annex 2) provided in compliance with the actual situation or planning?	N/A. There is no public funding from an Annex 1 country to support the PoA. The validation team has confirmed it with on-site interview with the CME and local authorities.	N/A	N/A

Conclusion

There is no public funding from an Annex 1 country to support the PoA or any CPAs to be included. The validation team has confirmed it with on-site interview with the CME and local authorities.

Appendix A: Documents and Interviewees

A.1 DOCUMENT LIST

Reference number	Date	Document Title and version number (if applicable)
/01/	04 June 2012 14 November 2012	PoA Design Document for the proposed PoA Version 1.0 (for GSP) Version 2.0(Final)
/02/	04 June 2012 15 November 2012	Specific CPA Design Document-- Programme for SSC Hydropower Plants in rural areas, CPA # 1 Version 1.0 (for GSP) Version 2.0 (Final)
/03/	September, 2012	Host Country Letter of approval for the proposed project issued by NDRC
/04/	Signed by 'Zhongtannengtou Tech Co., Ltd.' on 10 September 2012 Signed by 'Department of Climate Change, National Development & Reform Commission of China' on 25 September 2012 20 August 2012 25 September 2012	Modalities of Communication for the proposed project. Authorization letter from Zhongtannengtou Tech Co., Ltd. to authorize Ms. Chaoyuan Jia to sign the MoC on behalf of Zhongtannengtou Tech Co., Ltd. Written confirmation issued by Zhongtannengtou Tech Co., Ltd. that all corporate and personal details, including specimen signatures, are valid and accurate
/05/		UNFCCC GSP URL http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/1KU9BE1IHM0D4XFJUGCPV3JJJQRQUB/view.html
/06/	11 May 2012 11 May 2012	Preparation of the PoA-DD CDM Executive Board, Programme Design Document Form For Small-scale CDM Programme Of Activities, Version 02.0, EB66 Annex 13 CDM Executive Board, Guidelines for completing the programme design document form for small-scale CDM programme of activities, Version 02.0, EB67 Annex 30
/07/	23 November 2012	CDM Executive Board, Glossary of CDM terms, Version 07.0.
/08/	23 November 2012	Clean Development Mechanism Validation and Verification Standard (VVS), Version 03.0, EB70
/09/	03 June 2011	Approved Methodology applied for the PoA AMS-I.D.: Grid connected renewable electricity generation, Version 17, EB 61 ACM 0002: Consolidated baseline methodology for grid-connected electricity generation from

Reference number	Date	Document Title and version number (if applicable)
	11 May 2012	renewable sources, Version 13.0.0, EB 67
/10/	03 December 2012 29 Sep 2011	Methodological tools applied for the PoA Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities, Version 02.1, EB70 Tool to calculate the emission factor for an electricity system, Version 02.2.1, EB63
/11/	20 July 2012	"Guidelines on the demonstration of additionality of small-scale project activities" (version 9.0), EB68 Annex27
/12/	28 May 2010 2 Aug 2010 20 Jul 2012 15 July 2011	CDM EB Guidelines applied for the project CDM Executive Board, Guidelines on assessment on debundling for SSC project activities, Version 03, EB54, Annex 13 CDM Executive Board, Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reduction for a programme of activities, Version 04.1, EB55, Annex 38 CDM Executive Board, Guidelines for demonstrating additionality of micro-scale project activities, Version 04.0, EB68, Annex 26 CDM Executive Board, Guidelines on the Assessment of Investment Analysis, Version 05, EB62, Annex 5
/13/	01 July 1995	Economic evaluation code for small hydropower projects, issued by Ministry of Water Resources of the People's Republic of China.
/14/		China Energy Statistic Yearbook 2008~2010 China Electric Power Yearbooks 2006~2010
/15/		2006 IPCC Guidelines on National GHG Inventories
/16/	01 Jan 2006	Renewable Energy Law, Issued by Chinese government
/17/	Valid to 17 April, 2032	Business license of Zhongtannengtou Tech Co., Ltd., issued by Beijing Administration of industry and Commerce.
/18/	21 Oct 2011	Notification on Determining Baseline Emission Factors for China Power Grids in 2011, issued by China NDRC
/19/		Website of Chinese DNA: National Development and Reform Commission (NDRC) http://cdm.ccchina.gov.cn/web/index.asp
/20/	03 Aug 2011	revised version of the Measures for Operation and Management of Clean Development Mechanism Projects in China, issued by NDRC
/21/	8 June 2012	ER calculation spreadsheet of the specific CPA, Version 1.0
/22/	20 November 2012	IRR calculation spreadsheet of the specific CPA, Version 2.0
/23/	January 2012	29 questionnaires of the stakeholder survey for the specific CPA
/24/	July 2012	CME management Manual, issued by Zhongtannengtou Tech Co., Ltd, version 1.0
/25/	29 September 2012	CVs of the CME's key personnel
/26/	Year 2000	Technical administrative code of electric Energy metering DL/T 448-2000
/27/	15 March 2001	The definition of statistical index issued by State Statistics Bureau

Reference number	Date	Document Title and version number (if applicable)
/28/	02 June 1995	Economic evaluation code for small hydropower projects, issued by Ministry of Water Resources.

A.2 INTERVIEWS

Reference	Name	Title & Organisation	Main topics discussed
IV1	Ms. Yujia Qian	Senior Project Manager, Zhongtannengtou Tech Co.,Ltd.	<p>General information and various aspects of this PoA related to CDM, which include but not limited to:</p> <ul style="list-style-type: none"> PoA background information (geographic definition, voluntary action, major data input in PoA-DD); Technology applied and grid connected method; Information of public funding; Monitoring plan and relevant metering equipment; Contribution to Sustainable Development; Operational and management system; Local stakeholders consultation.
IV2	Mr. Lei Zhang	Project Manager, Redox international consulting (Beijing) Co., Ltd.	
IV3	Mr. Tao Jiang	Vice Director, Environmental Bureau, Jiulong county, Sichuan province.	
IV4	Mr. Zengguang Xu	Deputy, Development and reform bureau, Danba county, Sichuan province.	
IV5	Mr. Qiyong Jiang	Vice Director, Jiulong Kangneng Electricity Generation Company.	
IV7	Mr. Xinyou Zhong	Chief of Fangmaping village, Jiulong county	
IV8	Mr. Cier Genguo	Resident of Fangmaping village, Jiulong county	
IV9	Mr. Xinqiang Zhong	Resident of Dakong village, Jiulong county	

Appendix B: Remediation Form

Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs)

Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
<p>CAR 1</p> <p>The LoA and MOC have not been provided.</p>	<p>5.1.1</p> <p>5.1.2</p> <p>5.1.3</p> <p>5.1.4</p> <p>5.2.1</p> <p>5.3.1</p> <p>5.4.1</p> <p>12.1.1</p>	<p>The MOC and the Chinese LoA have been submitted to DOE.</p> <p>As per the Chinese LoA, Zhongtannengtou Tech Co., Ltd. is authorized as China's participant to voluntarily participate in and carry out the PoA as the CME.</p>	<p>This project is a unilateral project, thus only having host country LoA.</p> <p>ERM CVS has received the LoA issued by Host Country dated September 2012 from the PPs. The MoC signed on 25 September 2012 has been provided as well.</p> <p>The Host Party LoA /03/ confirms that:</p> <ul style="list-style-type: none"> ● China is a Party to the Kyoto Protocol; ● Approves the participation of the Zhongtannengtou Tech Co., Ltd. in the PoA as the CME; ● States that the project would contribute to sustainable development; and ● Refers to the PoA using the project title in the PoA-DD. <p>In accordance with the VVS paragraph 54, corporate and personal details in the MoC have been confirmed through checking evidence for corporate, personal identity and other relevant documentation.</p> <p>ERM CVS has performed due diligence on the MoC statement in accordance with the requirements established in the VVS. ERM CVS can confirm that the MoC statement complies with all relevant forms and requirements.</p> <p>Therefore, CAR 1 is closed.</p>
CAR 2	8.3.1	According to paragraph 20 of AMS.I.D (Version 17), for the hydropower project activities, project emissions have to be	The project emission of CH ₄ are correctly identified in the

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Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
The emission sources, relevant calculation steps and formulas of project emissions are not included in the GSP version generic CPA-DD /01/.	8.5.1 11.1.1 11.1.2	considered following the procedure described in the most recent version of ACM0002. It is clearly defined in the methodology ACM0002 that the project emissions of CH ₄ from water reservoirs will exist if the power density of the project activity (PD) is not greater than 10W/m ² . The detail of the emission sources, relevant calculation steps, formulas of CH ₄ and project emission have been added in the generic CPA-DD.	revised PoA-DD. The detail of the emission sources, relevant calculation steps, formulas of project emission CH ₄ have been added in the generic CPA-DD and were consistent with the AMS.I.D (Version 17) and ACM0002 (Version 13.0.0). The validation team confirm that reasonable and acceptable. Hence, CAR 2 is closed.
CAR 3 The start date of the PoA is currently not consistent with the actual date of GSP. Please correct.		According to the information form EB website: http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/1/KU9BE1IHM0D4XFJUGCPV3JJJQRQUB/view.html The Global Consultation Period of the PoA started on 11/06/2012. This date is identified as the start date of the PoA as per the CDM Glossary of Terms (version 7.0).	The start date of the PoA has been revised as 11/06/2012, which is the start date of the PoA Global Consultation Period. The validation team checked the VVS (version 3.0) and confirmed the procedure to define the start date of the PoA is in compliance and acceptable.

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CL 1 The geographical boundary in the section A.2 and B.2 of the PoA-DD is not clear. Furthermore, the template information of the main equipment and installations, lifetime of the typical CPA, monitoring equipment and location and description of technology transfer	6.4.2 6.4.3 7.1.1	The geographical boundary of the PoA is identified as the Sichuan province covered by the Central China Power Grid. The location of each CPA will be in rural areas of Sichuan Province and checked as per the eligibility criteria No.1 of this PoA. It has been added and described clearly the section A.2 and B.2 of the PoA-DD. The template of main equipment and installations, lifetime of	The definition of the geographical boundary has been added in the PoA-DD and the boundary has been defined as the Sichuan Province covered by the Central China Power Grid. The location of each CPA will be in rural areas of Sichuan Province and checked as per the eligibility criteria No. 1 of this PoA. It is also stated in the PoA-DD that the rural area is county or village area defined in the document issued by State Statistics Bureau /27/, which

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Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
from Annex I countries are not included in section A.1 of the generic CPA-DD.		the project, monitoring equipment and location and description of whether the technology transfers from Annex I countries have been added in the A.1 part of the generic CPA-DD.	<p>could be cross- checked by the description and maintenance and construction tax rate in the FSR/PDR of CPAs.</p> <p>The validation team checked against the host country LoA for this PoA and confirmed the definition of the boundary in this PoA was consistent with the LoA.</p> <p>The template of main equipment and installations, lifetime of the project, monitoring equipment and location and description of technology transfer from Annex I countries has been added in section A.1 of the generic CPA-DD.</p> <p>The validation team deem that the description of the typical CPA in the PoA-DD and generic CPA-DD provides a clear, accurate and sufficiently detailed description, which is in line with the guidelines for completing the programme design document form for small-scale CDM programme of activities (Version 02.0)/06/.</p> <p>Hence, CL 1 is closed.</p>
<p>CL 2</p> <p>The conditions to avoid double counting of emission reductions, including objective and verifiable standards and procedures, are not included in the PoA-DD (version 1.0).</p>	<p>7.1.2</p> <p>7.1.14</p>	<p>The conditions to avoid double counting of emission reductions have been added in the eligibility criteria of the PoA-DD, which is described as the inclusion of the CPA in the PoA should not lead to double counting of the emissions reduction by confirming that the CPA is neither a registered CDM project activity nor a CPA of other registered PoAs.</p> <p>Data and evidence on each CPA to be included into the PoA, such as unique geographical coordinates, confirmation from CPA owner on this proposed CPA neither applying as an individual CDM project nor being part of any other PoA, shall be accumulated and checked by the CME comparing the information available on the UNFCCC website to avoid double accounting.</p> <p>The PoA-DD has been revised to include above description.</p>	<p>The validation team check the revised eligibility criteria and confirm the criteria include conditions that avoid double counting of emission reductions.</p> <p>The validation team reviewed the description of the eligibility criteria in section B.2 of the PoA-DD and confirmed it has adequately defined that data and evidence on each CPA to be included into the PoA, such as unique geographical coordinates, confirmation from CPA owner on this proposed CPA neither applying as an individual CDM project nor being part of any other PoA, shall be accumulated and checked by the CME comparing the information available on the UNFCCC website to avoid double accounting.</p> <p>The validation team confirm that relevant criteria are verifiable and sufficiently objective base on local and sectoral expertise.</p>

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			Hence, CL 2 is closed.
<p>CL 3</p> <p>The condition and procedure to check the start date of the CPA through evidence is not mentioned in the eligibility criteria in the GSP version PoA-DD.</p>	<p>7.1.4</p> <p>7.1.14</p>	<p>The conditions to condition and procedure to check the start date of the CPA through evidence have been added in the eligibility criteria of the PoA-DD, which is described as the start date of the CPA should be after the start date of the PoA(11 June 2012).</p> <p>Data and evidence on each CPA to be included into the PoA, such as Construction Contract, Equipment Purchase Contract, Construction Start Permission, Or any applicable available documents could be checked to determine the earliest date at which either the implementation or construction or real action of the CPA begins.</p> <p>The PoA-DD has been revised to include the above description.</p>	<p>The validation team checked the eligibility criteria and confirmed that the criteria include conditions to check the start date of the CPA through evidence.</p> <p>The validation team reviewed the list of data and evidence for checking the start date of the CPA and deem that is appropriate and acceptable based on local and sectoral expertise.</p> <p>The validation team confirm that relevant criteria are verifiable and sufficiently objective.</p> <p>Hence, CL 3 is closed.</p>
<p>CL 4</p> <p>The version of the guidelines for demonstrating additionality of micro-scale project activities have been updated to version 04.0. Revision of the demonstration of additionality in the eligibility criteria is needed to be in line the latest guidelines for demonstrating additionality of micro-scale project activities.</p>	<p>7.1.6</p> <p>7.1.14</p> <p>9.4.1</p>	<p>The eligibility criteria have been revised as per the latest guidelines for demonstrating additionality of micro-scale project activities (version 04.0). Please check.</p>	<p>The validation team checked the eligibility criteria and confirmed that the criteria have been revised as per the latest guidelines for demonstrating additionality of micro-scale project activities (version 04.0).</p> <p>It is stated in the updated PoA-DD that:</p> <p>CPA up to five megawatts that employ renewable energy technology are additional if the geographic location of the project activity is in one of the least developed countries or the small island developing States (LDCs/SIDS) or in a special underdeveloped zone (SUZ) of the host country as per 'Guidelines for demonstrating additionality of micro-scale project activities (Version 4.0);</p> <p>CPA >5MW and ≤15MW or CPA<5MW but not in SUZ identified as per the guidelines for demonstrating additionality of micro-scale project activities (version 04.0), additionality demonstration should base on the latest guidelines on the demonstration of additionality of small-scale project activities, and investment barrier analysis should be adopted to demonstrate the CPA's additionality as per the latest guidelines on the</p>

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			<p>assessment of investment analysis and any other relevant guidance from the board pertaining to investment analysis.</p> <p>The validation team checked against the guidelines for demonstrating additionality of micro-scale project activities (version 04.0) and confirm relevant criteria are in compliance and verifiable.</p> <p>Hence, CL 4 is closed</p>
<p>CL 5</p> <p>The requirements related to undertaking local stakeholder consultations, environmental impact analysis, target group and distribution mechanisms are not included in the eligibility criteria in the GSP version PoA-DD.</p>	<p>7.1.7</p> <p>7.1.8</p> <p>7.1.14</p>	<p>The eligibility criteria have been revised to include the following criteria:</p> <ul style="list-style-type: none"> The information of local stakeholders' consultation and the environmental impact analysis need to be conducted at CPA level. The qualified CPA will be a newly built grid-connected small scale hydropower project in rural areas of Sichuan Province developed by registered company.. <p>The detail of the eligibility criteria mentioned has been revised in the PoA-DD.</p>	<p>The validation team check the eligibility criteria and confirm the criteria include conditions of undertaking local stakeholder consultations, environmental impact analysis, target group and distribution mechanisms.</p> <p>Local stakeholder consultations and stakeholder questionnaires would be carried out to collect comments from all local stakeholders at the CPA level. Assessment of Impact on air, water, acoustic and solid environment would be carried out to complete the environmental impact analysis (EIA). The EIA report and approval documents will be checked and reviewed.</p> <p>The questionnaires will be checked to confirm whether the local stakeholder consultation is appropriate. And EIA report and EIA approval will be checked to confirm that the project is in accordance with the requirements of environmental impact analysis of the host country.</p> <p>The qualified CPA will be a newly built grid-connected small scale hydropower project in rural areas of Sichuan Province developed by registered company. The FSR/PDR, Business licence of the CPA implementer, power purchase agreement (PPA) or grid connection agreement (if available) and other data in the record keeping system can be checked and reviewed at the time of CPA inclusion.</p> <p>The validation team confirmed that the relevant criteria are verifiable and sufficiently objective base on local and sectoral expertise. Please see section 7 for further details of how the eligibility criteria were validated.</p> <p>Hence, CL 5 is closed.</p>

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<p>CL 6</p> <p>The conditions related to sampling requirements for a PoA are not clearly described in the eligibility criteria.</p>	<p>7.1.9</p> <p>7.1.14</p> <p>10.2.1</p>	<p>Each CPA will be verified individually. Thus the standard for sampling and surveys is not applicable.</p> <p>The criteria eligibility has been updated and revised.</p>	<p>It is stated in the updated eligibility criteria of the PoA-DD that each CPA will be verified individually. Thus the poA will not include any sampling or surveys.</p> <p>The validation team confirmed that it would be required by the eligibility criteria that no sampling would be employed in this PoA.</p> <p>Hence, CL 6 is closed.</p>
<p>CL 7</p> <p>The procedure in the eligibility criteria to check the debundling is not consistent with the latest approved version of the guidelines on assessment of debundling for SSC project activities.</p>	<p>7.1.11</p> <p>7.1.14</p>	<p>The eligibility criteria have been revised as per the latest approved version of the guidelines on assessment of debundling for SSC project activities. Please check.</p>	<p>The validation team checked the eligibility criteria and confirmed that the criteria have been revised to comply with the latest approved version of the guidelines on assessment of debundling for SSC project activities (Version 03).</p> <p>The procedures of debundling check were described in the eligibility criteria in the PoA-DD, i.e. that there should be no registered small-scale CDM project activity or an application to register another small-scale CDM project activity that:</p> <ul style="list-style-type: none"> ● Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and where; ● The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point. <p>The declaration from CPA implementer on non-debundling, FSR/PDR and available information on all registered activities on the CDM website could be checked and reviewed at the time of inclusion.</p> <p>The validation team confirmed that the requirements in the PoA are consistent with the guidelines on assessment of debundling for SSC project activities (Version 03) and are sufficiently objective and verifiable.</p> <p>CL 7 is closed</p>

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<p>CL 8</p> <p>The procedure and evidence to check the affirmation that funding from Annex I parties does not lead to a diversion of ODA is not clear enough.</p>	<p>7.1.12</p> <p>7.1.14</p>	<p>The CPA implementer will sign a declaration affirming that no funding from Annex I parties is used. The loan contract or other public available documents demonstrating no funding from Annex I parties will be checked and reviewed.</p> <p>The PoA-DD has been revised to include above description.</p>	<p>The eligibility criteria have been updated in the PoA-DD.</p> <p>ERM CVS deemed that the compliance and procedure updated in the PoA-DD are acceptable and sufficiently objective.</p> <p>CL 8 is closed.</p>
<p>CL 9</p> <p>Some parameters to calculate the grid emissions factor in china are not included in the PoA-DD</p>	<p>8.5.1</p>	<p>The parameters to calculate the grid emission factor in China, such as $CAP_{Total,y}$, $CAP_{Thermal,y}$, $EF_{Coal,Adv,y}$ etc , have been added in PoA-DD.</p> <p>The detail information has been revised in PoA-DD.</p>	<p>The correction has been made in the PoA-DD.</p> <p>The validation team checked against the Notification on Determining Baseline Emission Factors for China Power Grids in 2011, China Electric Power Yearbooks (2008 to 2010) and China Energy Statistical Yearbook 2010 and confirmed its consistency. Please see section 8.5 for further details of how the parameters and steps to calculate the gris emission factor were validated.</p> <p>CL 9 is closed</p>
<p>CL 10</p> <p>The value and calculation procedure of the combined margin emissions factor for the NWCPG and CSPG are not provided.</p>	<p>8.5.2</p>	<p>The PoA is defined to develop of new small scale hydropower projects in rural areas of Sichuan province that supply electricity supply electricity to CCPG, which is consistent with the Chinese LoA.</p> <p>Thus, the NWCPG and CSPG are not applicable to the CPAs included in the PoA.</p>	<p>The validation team has reviewed the PoA-DD and found the description of connection to the NWCPG and CSPG has been deleted from the PoA-DD.</p> <p>The boundary of the PoA has been clarified to only include Sichuan Province covered by the Central China Power Grid and all CPA will be in rural areas of Sichuan Province and checked as per the eligibility criteria No.1.</p> <p>Such areas are all connected to the CCPG. As per the definition of the Notification on Determining Baseline Emission Factors for China Power Grids in 2011, issued by the NDRC, all Sichuan Province is included in the CCPG.</p> <p>The validation team has checked the Chinese LoA and confirmed the PoA is defined to develop of new small scale hydropower projects in rural areas of Sichuan province.</p>

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			<p>Thus, the validation team deem that the correction updated in the PoA-DD is reasonable and acceptable.</p> <p>Hence, CL 10 is closed.</p>
<p>CL 11</p> <p>The additionality demonstration of the PoA as a whole is not clearly stated.</p>	9.2.1	<p>It is updated in the PoA-DD that the PoA is a voluntary action and no CPA will be implemented in the absence of the PoA.</p> <p>It is also stated in the Chinese LoA that this PoA is a voluntary action.</p>	<p>The PoA-DD now demonstrates that the PoA is a voluntary action not mandated by any national or sectoral policies. Please see section 9.2.1 for details of how this was validated.</p> <p>Furthermore, it is stated in the updated PoA-DD that in the absence of CDM, none of the implemented CPAs would occur. The validation team confirmed that is in line with the standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities. Clear steps are prescribed in the PoA-DD for the demonstration of additionality of CPAs.</p> <p>The validation team checked above description in the PoA-DD against the host country LoA and found it to be consistent.</p> <p>Thus, the validation team deem that the correction updated in the PoA-DD is reasonable and acceptable.</p> <p>Hence, CL 11 is closed.</p>
<p>CL 12</p> <p>Section C of the PoA-DD (version 1.0) does not include the following aspects:</p> <p>(a) Records of arrangements for training and capacity development for personnel;</p> <p>(b) Procedures for technical review of inclusion of CPAs;</p> <p>(c) Measures for continuous improvements of</p>	<p>10.1.3</p> <p>10.1.4</p> <p>10.1.7</p>	<p>The records of arrangements for training and capacity development for personnel, the procedures for technical review of inclusion of CPAs, as well as the measures for continuous improvements of the PoA management system have been added in the section C of PoA-DD. Please check.</p>	<p>The validation team checked the description in section C of the PoA-DD against the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version 02.1) and confirmed consistency. The PoA-DD now describes how the operation and management system of the CME includes records of arrangements for training and capacity development for personnel, procedures for technical review of inclusion of CPAs, and measures for continuous improvements of the PoA management system. Please see section 10 for further details of how this was validated.</p> <p>Therefore, the validation team deem that the revision updated in the PoA-DD is reasonable and acceptable.</p>

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the PoA management system;			Hence, CL 12 is closed.

In addition some editorial and minor changes to the PoA-DD were made by the PP that had no relevance on compliance with CDM requirements.

Minor issues	Ref. to Section Number	Summary of PP's response	Final conclusion
<p>Minor issue 1</p> <p>The data units of $EF_{CO2,i}$, NCV_i and $EF_{grid,CM,y}$ are not consistent with the methodologies applies in the PoA-DD.</p>	8.5.1	The units of $EF_{CO2,i,y}$ and NCV_i have been corrected according to the methodologies.	The correction has updated in the revised PoA-DD. The validation team checked the correction against the methodologies AMS-I.D. and confirmed the consistency. Thus Minor issue 1 is closed.

Forward Action Request	Ref. to Section Number	Summary of PP's response
No FAR is raised.		