


Validation report form for post-registration changes for CDM project activities
(Version 01.0)

Complete this form in accordance with the "Attachment: Instructions for filling out the validation report form for post-registration changes for CDM project activities" at the end of this form.

VALIDATION REPORT ON POST-REGISTRATION CHANGES (PRCs)

Title and reference number of the project activity	Title: Yunnan Jiayan Hydropower Project Reference number: 9031
Process track	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
Version number of the validation report on PRCs	01
Completion date of the validation report on PRCs	06/11/2016
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan to a registered project activity <input checked="" type="checkbox"/> Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline <input type="checkbox"/> Changes to the project design of a registered project activity <input type="checkbox"/> Types of changes specific to afforestation and reforestation project activities
Version number of PDD to which this report applies	04.4
Project participant(s)	Yunnan Dianneng Luquan Dianlin Development Co., Ltd Baraka Global Advisors (withdrawn)
Host Party	China
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	Sectoral scope: 1. Energy industries (renewable/non-renewable sources) ACM0002 Version 13.0.0
Name of DOE	China Building Material Test & Certification Group Co., Ltd. (CTC)
Name, position and signature of the approver of the validation report on PRCs	

SECTION A. Executive summary

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Yunnan Dianneng Luquan Dianlin Development Co., Ltd has commissioned China Building Material Test & Certification Group Co., Ltd. (hereafter referred to as “CTC”) to carry out the post-registration changes (PRC) validation of Yunnan Jiayan Hydropower Project (hereafter referred to as “the Project”, UNFCCC reference No. 9031).

The Project is a newly built grid connected hydropower plant developed by Yunnan Dianneng Luquan Dianlin Development Co., Ltd and located in Luquan County, Kunming City, Yunnan Province. The total installed capacity of the Project is 240MW. The purpose of the Project is to utilise the hydrological resources to generate electricity which would otherwise have been produced by fuel-fired power plants and deliver the electricity to the China Southern Power Grid. The Project will achieve greenhouse gas (GHG) emission reductions by avoiding CO₂ emission from the baseline scenario, electricity generated by those fossil fuel-fired power plants connected into Southern China Power Grid.

The validation is based on the currently valid documentation of the United Nations Framework Convention on Climate Change (UNFCCC). The validation process includes three phases: 1) desk review of documents; 2) onsite inspection and follow-up interviews with the relevant personnel; 3) resolution of outstanding issues and the issuance of final verification report and opinion.

During the onsite visit on 30/08/2016 for the verification of the 1st monitoring period (from 01/02/2013 to 31/12/2015) of the Project, it was noticed that the location of the meters has been changed from the registered PDD as per the power purchase agreement (PPA), and hence the registered PDD is required to be revised. This report summarizes the findings of the validation of the post-registration changes, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

In our opinion, the post-registration changes meet all relevant UNFCCC requirements for the CDM and the relevant host country criteria. CTC thus requests the approval of post-registration changes of the project activity.

SECTION B. Validation team, technical reviewer and approver

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B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader	IR	Tan	Ernesto	Central Office	√	√	√	√
2.	Validator	IR	/	/	Central Office	/	/	/	/

B.2. Technical reviewer and approver of the validation report on PRCs

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Dou	Lucas	Central Office
2	Approver	IR	Chen	Lu	Central Office

SECTION C. Means of validation**C.1. Desk review**

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A desk review of the PDD and supporting documents was conducted by the verification team. The aim of the desk review of the documentation was to verify the completeness of the data and the information presented.

Furthermore, cross checks were made between information provided in the PDD and information from sources other than those used. To address the corrective action and clarification requests, China Carbon Futures (Beijing) Asset Management Co., Ltd. (the consultant) revised the PDD and resubmitted it on 05/11/2016 /3/.

The validation conclusions presented in this report relate to the project as described in the revised PDD version 04.4 /3/.

C.2. On-site inspection

Duration of on-site inspection: 30/08/2016				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening meeting (Scope of work, timetable, approval process, CDM procedure for validation, confidentiality)	project site	30/08/2016	Tan Ernesto
2	Check whether the actual monitoring activities comply with the monitoring plan	Project site	30/08/2016	Tan Ernesto
3	Interview	Project site	30/08/2016	Tan Ernesto
4	Document Review of the PDD and the PPA	Project site	30/08/2016	Tan Ernesto
5	Closing Meeting CARs/CLs discussion, findings compilation, agreement on the time frame for replies Recommendations, impacts of the findings and delayed response upon timings and next steps.	Project site	30/08/2016	Tan Ernesto

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Chen	Ran	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	30/08/2016	Change of location of meter(s) as per a PPA	Mr. Ernesto Tan Mr. Tan Wenbin
2	Ma	Qian	China Carbon Futures (Beijing) Asset Management Co., Ltd.			

C.4. Clarification requests, corrective action requests and forward action requests raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline	-	-	-
Corrections	-	-	-
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan to a registered project activity	-	-	-
Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline	-	-	-
Changes to the project design of a registered project activity	-	-	-
Types of changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
Total	0	0	0

SECTION D. Validation findings**D.1. Compliance with PDD form**

Means of validation	According to Para.69 VVS version 09.0 /7/, CTC validation team cross-checked and
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	compared the revised PDD /3/ by employing the valid Project design document form /9/ listed in UNFCCC website. Besides, the validation team compared the information transferred to the valid version of the revised PDD /3/ with that in the registered PDD /1/.
Findings	<p><u>PDD Form</u></p> <ul style="list-style-type: none"> – The revised PDD /3/ used the latest valid version of the applicable Project design document form (version 08.0) /9/ at UNFCCC website. – The revised PDD /3/ is complete and meet all relevant requirements of instructions for filling out the Project design document form(version 08.0) /9/ for CDM project activities and “Clean development mechanism project standard” (version 09.0).
Conclusion	<p>As per requirement of Para. 70 of VVS Version 09.0, based on the findings above, CTC validation team confirms that the revised PDD version 04.4 (both in tracked-change and clean versions) was compliance with the valid version of the applicable PDD form and the instructions therein for filling out the PDD form /9/.</p> <p>The project participants used the later version of the PDD form for the revised PDD than the version of the PDD form of the registered PDD. CTC validation team has checked the revised PDD /3/ and can confirm that information transferred to the later version of the PDD form is materially the same as that in the registered PDD /1/.</p>

D.2. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.3. Corrections

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.4. Changes to the start date of the crediting period

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.5. Inclusion of a monitoring plan to a registered project activity

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.6. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	Since operation start of the Project, the actual location of the meters does not comply with the monitoring plan in the registered PDD. As per Para. 312 of VVS Version 09.0, CTC validation team determines that there are permanent changes from the registered monitoring plan. Hence the registered PDD is required to be changed.
Findings	<p>CTC validation team witnessed the monitoring activities onsite and interviewed the representatives from the PP on 30/08/2016, and can confirm that the actual location of the meters complies with the changed monitoring plan in the revised PDD /3/, which is required by the power purchase agreement (PPA) signed with the grid company /4/.</p> <p>The location of the meters has been changed as per the PPA, which are installed at 220KV transmission line at plant side, referring to the below Figure 1.</p>

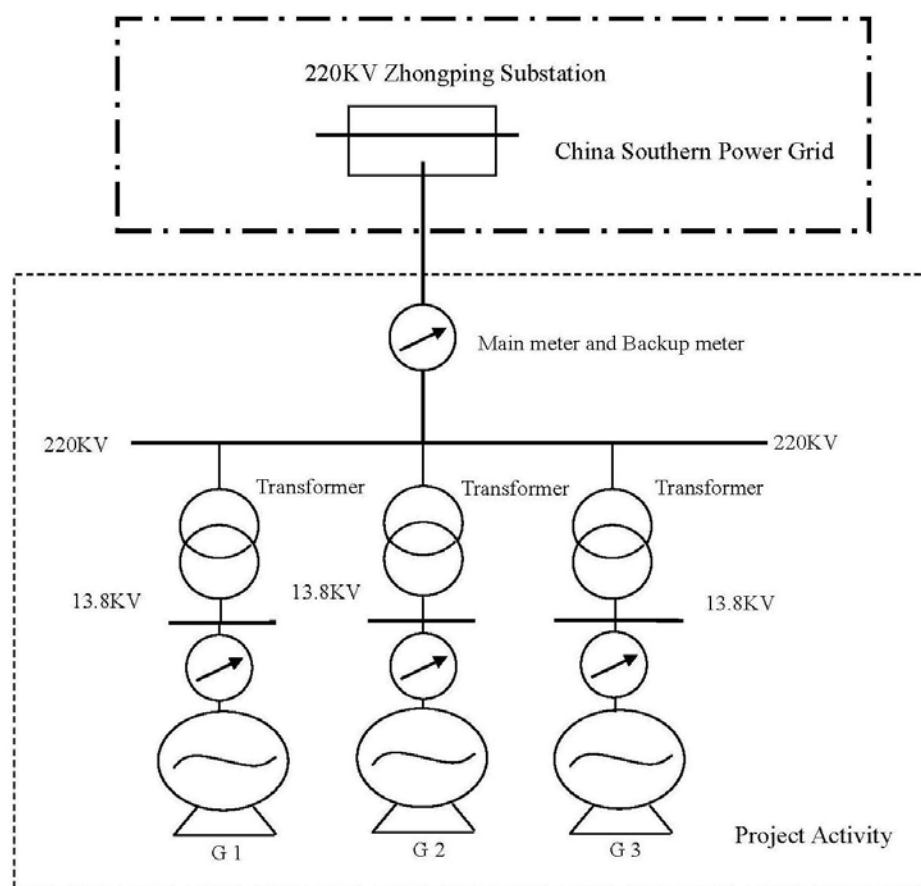


Figure 1 Diagram of the Metering System

Consequently the monitoring parameters used to calculate the net electricity generation supplied by the Project to the grid are redefined. The redefined monitoring parameters related to electricity are shown below:

- $EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the Project to the grid
- $EG_{\text{feed-in},y}$ Feed-in electricity supplied by the Project to the grid in year y
- $EG_{\text{imported},y}$ Electricity imported from the grid

The monitored parameters are sufficient to calculate the emission reductions.

To approach the valid calculation of the net electricity generation supplied by the Project to the grid, the metering system is changed. The formula for calculating the net electricity supplied by the project will be revised as follows as per the PPA:

$$EG_{\text{facility},y} = EG_{\text{feed-in},y} - EG_{\text{imported},y}$$

By checking the revised monitoring plan contained in the revised PDD against the methodology ACM0002 Version 13.0.0, which is applied in the registered PDD, the validation team concludes that the change to the monitoring plan is in accordance with the methodology ACM0002 Version 13.0.0 applied by the Project. The proposed change to the monitoring plan mainly relates to change of location of the meters required by the PPA, but not the accuracy of the meters. Therefore, the level of accuracy and completeness of the proposed revision is not reduced. In compliance with the Para. 313 of VVS Version 09.0, the CTC validation team determines that the changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.

The change to the location of the meters is required by the PPA. CTC validation team can confirm that the change does not require prior approval by the Board, which complies with the Appendix 1 of the PS Version 09.0 /6/.

Conclusion

In compliance with the Para. 316 of VVS Version 09.0, the DOE shall state its opinion on whether the permanent changes comply with the relevant requirements

	related to the permanent changes from the registered monitoring plan, the applied methodology and/or the applied standardized baseline in the Project standard.
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D.7. Changes to the project design of a registered project activity

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.8. Types of changes specific to afforestation and reforestation project activities

Means of validation	N/A
Findings	N/A
Conclusion	N/A

SECTION E. Internal quality control

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CTC has taken the following quality control measures within the validation team and of the validation process according to relevant CTC's internal procedures:

- The contract review of the validation was conducted and concluded that CTC has the accredited scope and competence to validate the project with impartiality as well;
- The validation team was selected with due considerations given in terms of the competence and impartiality;
- The validation team carried out the validation work and compiled a validation report strictly following CTC's Procedures for Implementation of Validation.

The validation report submitted by the validation team was subjected to a technical review and decision-making process, the technical reviewers and decision-makers are qualified and independent from the validation team. If any issue is raised during technical review and/or decision-making the same is to be discussed between the issue-raiser and the team leader as well as the PP. All issues must be satisfactorily addressed before the submission of the report for final approval. The persons who conducted the technical review and decision-making for the project are shown on Section B of this report and their Certificates of Competence can be found in Appendix 2 of this report.

The report approved by the authorized official of CTC as the final report together with relevant documents are submitted to CDM EB through the UNFCCC dedicated web-platform for registration (only if an unconditioned positive validation opinion is concluded).

SECTION F. Validation opinion

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The validation team assigned by China Building Material Test & Certification Group Co., Ltd. (CTC) concludes that Yunnan Jiayan Hydropower Project in P.R.China, as described in the PDD version 04.4 meets all relevant UNFCCC criteria for the Clean Development Mechanism, Clean Development Mechanism Validation and Verification Standard (VVS, Version 09.0) and host country criteria. Hence CTC requests the correction to the Project by the CDM Executive Board.

The validation was executed by taking the following methods and in the following steps:

1. Desk review of the project design and baseline and monitoring plan;
2. Follow-up interview with project stakeholders;
3. Resolution of outstanding issues and the issuance of the final validation report and opinion.

In the course of the validation, no Clarification Request (CL), no Corrective Action Requests (CARs) and no Forward Action Request (FAR), were raised for the proposed CDM project activity in relation to all relevant CDM requirements.

The review of the PDD (version 04.4) and additional background documents, the subsequent follow up interviews, together with the review of comments by Parties and Stakeholders, have provided CTC with sufficient evidence to confirm that the project has satisfied the stated criteria.

The validation covered all project components and issues that need to be validated for the renewal of crediting period as a CDM project. In our opinion, CTC hereby confirms that the project correctly applied the baseline and monitoring methodology ACM0002 Version 13.0.0 and meets the relevant UNFCCC requirements for the post registration changes. CTC hereby requests the post registration changes.

For and on behalf of CTC

Authorized Signature

Name: Chen Lu

Date: 06/11/2016

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline emissions
CAR	Corrective Action Request
CTC	China Building Material Test & Certification Group Co., Ltd.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification request
DOE	Designated operational entity
DNA	Designated National Authority
EB	Executive Board
FAR	Forward action request
GHG	Greenhouse gas(es)
IPCC	Intergovernmental Panel on Climate Change
MW/MWh	Megawatt / Megawatt hour
PCP	Project Cycle Procedure
PDD	Project Design Document
PO	Project owner
PP	Project Participant
PPA	Power Purchase Agreement
PS	Project Standard
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Mr. Lucas Dou holds a bachelor degree in Polymer and a master degree in Material Science. He gained more than 7 years' experience in Clean Development Mechanism in P. R. China. He obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO 14001 and Certified Measurement & Verification Professional (CMVP), and has successfully completed the course assessment for ISO 14064:2006. He has experience in CDM validation and verification for more than 100 projects that applied technologies of renewable energy, waste heat/gas recovery, biomass residues power generation, landfill gas power generation, natural gas power generation, etc. His qualification, industrial experience and experience in CDM demonstrate his sufficient sectoral competence in "Manufacturing industries (Cement and lime production)" and "Energy industries (Renewables)".

Mr. Ernesto Tan holds a bachelor degree in Geology and a master degree in Structural Geology. He gained more than 2 years' technical experience in Petroleum Exploitation and Storage & Transportation sector and more than 7 years' experience in Clean Development Mechanism in P.R China. He obtained the certificate of Climate Change Lead Verifier and Auditor for ISO 14001.

He has experience in CDM validation and verification for more than 200 projects that applied technologies of renewable energy, waste heat/gas recovery, energy distribution, energy demand, N₂O abatement, oil and gas industry, coal mine methane recovery and use, SF₆ capture and destruction, etc. His qualification, industrial experience and experience in CDM demonstrate his sufficient sectoral competence in “Energy industries (Renewables)”.

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Registered PDD	Version 04.3, dated 25/10/2012	Others
2	TÜV Rheinland	Validation report of the project activity	Version 01.3, dated 19/12/2012	Others
3	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Revised PDD	Version 04.4, dated 05/11/2016	Others
4	Yunnan Dianneng Luquan Dianlin Development Co., Ltd and the grid company	Signed power purchase agreement	Dated 12/06/2014	PP
5	Yunnan Dianneng Luquan Dianlin Development Co., Ltd	Diagram of power connection system of the Project	/	PP
6	UNFCCC CDM-EB	Methodology ACM0002 Version 13.0.0	/	Others
7	UNFCCC CDM-EB	Clean development mechanism project standard	Version 09.0 Dated 20/02/2015	Others
8	UNFCCC CDM-EB	Clean development mechanism validation and verification standard	Version 09.0 Dated 20/02/2015	Others
9	UNFCCC CDM-EB	Clean development mechanism project cycle procedure version	Version 09.0 Dated 20/02/2015	Others
10	UNFCCC CDM-EB	Project design document for CDM project activities	/	Others

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CL from this validation

CL ID	N/A	Section no.	N/A	Date: N/A
Description of CL				
N/A				
Project participant response				Date: N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A
N/A				

Table 2. CAR from this validation

CAR ID	N/A	Section no.	N/A	Date: N/A
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Description of CAR	
N/A	
Project participant response	Date: N/A
N/A	
Documentation provided by project participant	
N/A	
DOE assessment	Date: N/A
N/A	

Table 3. FAR from this validation

FAR ID	N/A	Section no.	N/A	Date: N/A
Description of FAR				
N/A				
Project participant response				Date: N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A
N/A				

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Document information

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01.0	23 March 2015	Initial publication.
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