



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: Sichuan Baishuijiang Duonuo Hydropower Project Reference number: 8916
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	Version 1.0
Completion date of the validation report on PRCs	02/11/2016
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	Version 03
Project participant(s)	Jiuzhaigou Hydropower Development Co., LTD
Host Party	People's Republic of China
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	Sectoral scope 1: Energy industries (renewable-/non-renewable sources) Selected methodology: ACM0002 Consolidated baseline methodology for grid-connected electricity generation from renewable sources (version 12.3.0)

Name of DOE	Shenzhen CTI International Certification Co., Ltd (CTI)
Name, position and signature of the approver of the validation report on PRCs	Zhou Lu, General Manager 

SECTION A. Executive summary

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Shenzhen CTI International Certification Co., Ltd (CTI) has performed the validation of the post-registration changes for the CDM project activity “Sichuan Baishuijiang Duonuo Hydropower Project” in China (UNFCCC Ref. No. 8916). The project is a diversion type hydropower project with total capacity of 100MW and locates at Baishui river, Jiuzhaigou County, A Ba Autonomous Prefecture, Sichuan Province of China. The geographical coordinates of the dam and the powerhouse are east longitude 103.7808°, north latitude 33.6131° and east longitude 103.9206°, north latitude 33.5603° respectively. The project consists of 2 sets of hydro turbines & generators with a unit capacity of 50 MW produced by Hangzhou Resource Power Equipment Co., Ltd. The electricity generated by the project activity was supplied to the Central China Power Grid (hereafter referred to as “CCPG”), and the project is estimated to supply 392,727MWh electricity to the CCPG annually and deliver 284,491 tonnes CO2 emission reductions annually as per the registered PDD. The project activity was registered as a CDM project activity on 26/12/2012.

The scope of the validation is to verify that:

- Whether the post changes 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;
- Whether the post changes refer to a later valid version of the applied methodology in the registered PDD, and whether the application of all the requirements in any later valid version of the applied methodology does not impact the conservativeness of the monitoring and verification process, including the related emission reduction calculations;
- Whether the permanent changes are likely to lead a reduction in the accuracy of the calculation of emission reductions.

By means of documentation review, physical site inspection and interviews with stakeholders, the validation team is able to confirm that the permanent post-change occurred to the registered monitoring plan is the change of the main monitoring meter’s location as per the signed Power Purchase Agreement (hereafter referred to as “PPA”) between the project owner and the grid company, and therefore does not require prior approval by the Board in accordance with the appendix to the Project Standard (hereafter referred to as “PS”). This change is in compliance with the applied methodology in the registered PDD and has been described in the Revised PDD completed with the valid version of the PDD. In addition, this post change does not reduce the level of accuracy pertained to the monitoring instruments compared with the defined ones in the registered PDD. Lastly, this post change does not reduce the accuracy of the calculation of emission reductions.

The validation team identified one CAR during this validation process, and no CL and FAR was raised. The CAR was satisfactorily addressed by the project participant in the Revised PDD (refer to Appendix 4 for further details). All changes made to the Revised PDD (version 03 dated 30/10/2016) are as a result of the validation finding.

It is the validation team’s opinion that this underlying post-registration change comply with the relevant requirements relating to the permanent changes from the registered monitoring plan in the Project Cycle Procedure (hereafter referred to as “PCP”). Hence, the CTI recommends the approval of request for the change as stated in the Revised PDD submitted by the project participant together with the request for issuance.

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	Involvement in			
						Desk review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader	IR	Tan	Yi	CTI	√	√	√	√

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

No.	Role	Type of resource	Last name	First name	Affiliation
1.	Technical reviewer	IR	Lin	Wu	CTI
2.	Approver	IR	Zhou	Lu	CTI

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

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To determine whether the permanent change from the registered monitoring plan comply with the relevant requirements related to the permanent changes from the registered monitoring plan in the PS. The CTI reviewed:

- The registered PDD /1/, the validation report /4/, and the Revised PDD /3/;
- Baseline and monitoring methodology ACM0002 (version 12.3.0) applied by the project /9/;
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board /10/-/13/; and
- Other information and references relevant to the project activity /5/-/8/.

C.2. On-site inspection

Duration of on-site inspection: 13/06/2016				
No.	Activity performed on-site	Site location	Date	Team member
1.	An assessment of the proposed post-registration change be the permanent change to the registered monitoring plan	The project plant, on-site substation, Heihetang hydropower station and its substation	13/06/2016	Tan Yi
2.	Determine whether the proposed post-registration change comply with the relevant requirements in the Project Standard.	The project plant, on-site substation, Heihetang hydropower station and its substation	13/06/2016	Tan Yi

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Ou	Yuanyang	Shanghai Marukyu Environment Co., Ltd.	13/06/2016	<ul style="list-style-type: none"> - Project design and implementation - Revised PDD - GHG Calculations 	Tan Yi
2.	Guo	Zhirui	Jiuzhaigou Hydropower Development Co., LTD	13/06/2016	<ul style="list-style-type: none"> - Project design and implementation - Project operation - Monitoring procedures - Monitoring equipment installation and calibration - Data collection procedures - Data QA/QC procedures 	Tan Yi

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	0	1	0
Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline	0	0	0
Corrections	0	0	0
Changes to the start date of the crediting period	0	0	0
Inclusion of a monitoring plan to a registered project activity	0	0	0
Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline	0	0	0
Changes to the project design of a registered project	0	0	0

activity			
Types of changes specific to afforestation and reforestation project activities	0	0	0
Others (please specify)	0	0	0
Total	0	1	0

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	Documentation review
Findings	During this validation of post-registration change, the validation team have checked through the initial version of PDD (version 02.2, dated 03/08/2016) /2/ submitted by the project participant, and found out that the valid version of PDD form (version 8.0) /13/ was not applied. The CAR 1 is raised and closed after the Revised PDD (version 3.0, dated 30/10/2016) /3/ is completed with the valid PDD form (version 8.0) /13/.
Conclusion	By means of documentation review, the conclusion is reached by the validation team that the valid version of PDD form /13/ is applied to the Revised PDD (version 3.0, dated 30/10/2016) /3/, which has no material change compared with the registered PDD (version 02.1, dated 14/12/2012) /1/, only except for this requested post-registration change.

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

Means of validation	Documentation review, site visit and interview
Findings	N/A
Conclusion	No temporary deviations from the registered monitoring plan or monitoring methodology is applicable to the project.

D.3. Corrections

Means of validation	Documentation review, site visit and interview
Findings	N/A
Conclusion	No corrections to the project or parameters fixed at validation is applicable to the project.

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

Means of validation	Documentation review
Findings	N/A
Conclusion	No changes to the start date of the crediting period is applicable to the project.

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

Means of validation	Documentation review
Findings	N/A
Conclusion	No inclusion of a monitoring plan is applicable to the project.

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

Means of validation	Documentation review, site visit and interview
Findings	By reviewing the Revised PDD (version 3.0, dated 30/10/2016), the validation team is able to confirm that the requested post-registration change to the registered PDD is the location of main meter W1 /3/. The project has deployed two meters (main meter: W1; backup meter: W2) to monitor the electricity exported to the CCPG and imported from the CCPG and then determine the quantity of net electricity supplied to the CCPG. As per the Figure 3 and Section B.7 of the registered monitoring plan /1/, these two meters would be installed at the outlet of on-site substation of the project as follows:

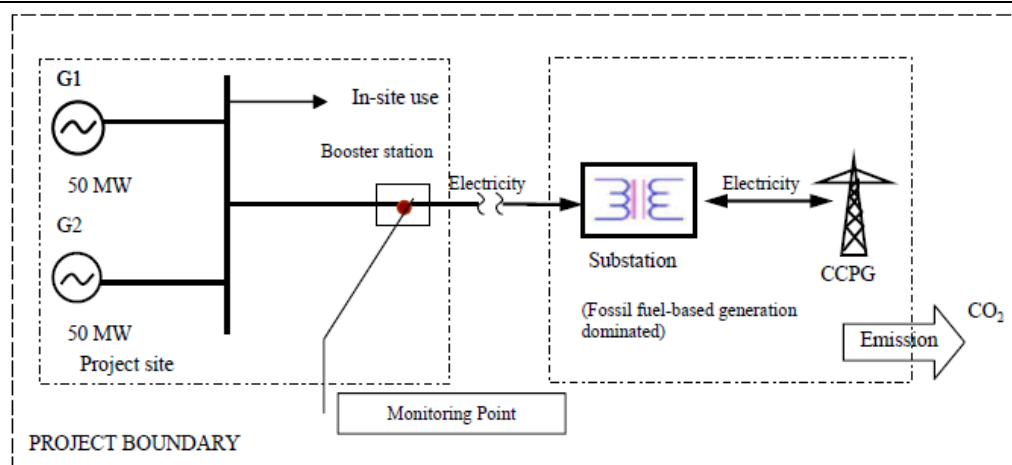


Figure B.3. Diagram of project boundary

The registered PDD was completed on 14/12/2012 while the project was still undergoing construction and was put into operation on 26/04/2013 /6/. According to the PPA signed between the project owner and the grid company /5/, the main meter W1 is actually installed at the inlet of substation of Heihetang hydropower station and the backup meter is installed at the outlet of on-site substation of the project as planned. The registered PDD is therefore revised with regard to this requirement pertained to the PPA in the Figure B.3.-1 and Section B.7 as follows:

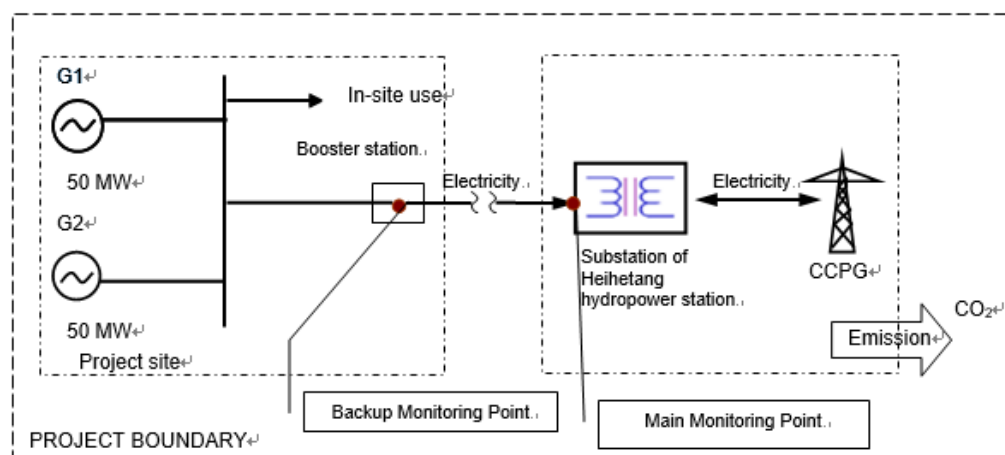


Figure B.3.-1 Diagram of project boundary

This permanent change of main meter W1's location is taken place in compliance with the requirements of PPA /5/. Hence, this change does not require prior approval by the Board as confirmed in accordance with the appendix to the PS /11/.

This change of main meter only refers to the meter location, and does not involve any impact on applicability and monitoring requirements of the applied methodology /9/. As defined in the registered PDD, the accuracy of W1 and W2 would reach 0.5s or above /1/. The accuracy of the meters are in fact calibrated 0.2s as shown in their calibration reports /8/. The current data information flows, QA/QC procedures, data cross-checking methods, etc. modified due to this post-registration change do not have material differences with the ones previously described in the registered PDD /1/. Furthermore, the emission reductions of the project are calculated conservatively in consideration of that the transmission line losses are deducted from the quantity of net electricity supplied to the CCPG. Hence, it is validation team's opinion that the accuracy of calculation of emission reductions of the project is still ensured.

Conclusion

As above, the validation team is able to confirm that:

- ✓ The post change is in compliance with the applied methodology and does not reduce the level of accuracy of the monitoring compared with the requirements contained in

	the registered monitoring plan;
	✓ The post change does not refer to a later valid version of the applied methodology in the registered PDD;
	✓ The permanent change is not likely to lead a reduction in the accuracy of the calculation of emission reductions.

D.7. Changes to the project design of a registered project activity

Means of validation	Documentation review, site visit and interview
Findings	N/A
Conclusion	No changes to the project design of a registered project activity is applicable to the project.

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

Means of validation	Documentation review
Findings	N/A. The project is not a type of afforestation and reforestation project.
Conclusion	N/A

SECTION E. Internal quality control

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This final validation report including the initial findings underwent a technical review before being submitted to project participants and requesting the approval for the changes according to CTI internal procedure. The technical reviewers were not part of the validation team, and the technical review was independently of the validation team.

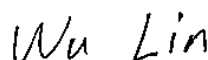
SECTION F. Validation opinion

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CTI has performed the validation of the post-registration changes according to the VVS (version 9.0). In CTI's opinion, the post-registration change ensures the accuracy and completeness of monitoring and verification process based on the actual conditions. The validation team is able to confirm the revision of monitoring plan included in the Revised PDD does not require the prior approval by the Board as per the PS (version 9.0). CTI recommends the approval of request for the changes as stated in the Revised PDD submitted by the project participant. In line with the Para.158 of the PCP (version 9.0), CTI can submit the changes for acceptance by the Board as part of the request for issuance.



Mr. Tan Yi
Team Leader
02/11/2016



Mr. Lin Wu
Technical Reviewer
02/11/2016

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CCPG	Central China Power Grid
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
PCP	Project Cycle Procedure
PDD	Project Design Document
PPA	Power Purchase Agreement
PS	Project Standard
tCO ₂ e	Tonnes of CO ₂ equivalents
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Clean Development Mechanism Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Mr. Tan Yi

Satisfies the requirements of the Certification Body of CTI and is hereby appointed as

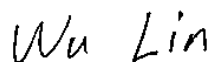
Qualification as						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	01/01/2015	01/01/2015	01/01/2015	01/01/2015	01/01/2015	01/01/2015

Qualification in the scope and technical area		
Scope	Technical area	Date
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Renewables	01/01/2015
SS 2: Energy distribution	TA 2.1: Energy distribution	01/01/2015
SS 3: Energy demand	TA 3.1: Energy demand	01/01/2015
SS 13: Waste handling and disposal	TA 13.1: Waste handling and disposal	01/01/2015
	TA 13.2: Animal waste management	01/01/2015

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Lin Wu



Technical competent manager

Shenzhen, 01/01/2015

Mr. Lin Wu

Satisfies the requirements of the Certification Body of CTI and is hereby appointed as:

Qualification as						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	01/01/2015	01/01/2015	01/01/2015	01/01/2015	01/01/2015	01/01/2015

Qualification in the scope and technical area		
Scope	Technical area	Date
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.1: Thermal energy generation	01/01/2015
	TA 1.2: Renewables	01/01/2015
SS 2: Energy distribution	TA 2.1: Energy distribution	01/01/2015
SS 3: Energy demand	TA 3.1: Energy demand	01/01/2015
SS 4: Manufacturing industries	TA 4.1: Cement and lime production	01/01/2015
SS 13: Waste handling and disposal	TA 13.1: Waste handling and disposal	01/01/2015
	TA 13.2: Animal waste management	01/01/2015

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Zhou Lu



General manager

Shenzhen, 01/01/2015

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	Shanghai Marukyu Environment Co., Ltd.	Registered PDD, version 02.1	dated 14/12/2012	Others
2.	Shanghai Marukyu Environment Co., Ltd.	Revised PDD, version 02.2	dated 03/08/2016	Others
3.	Shanghai Marukyu Environment Co., Ltd.	Revised PDD, version 3.0	dated 30/10/2016	Others
4.	ERM Certification and Verification Services	Validation report, version 2.1	dated 18/12/2012	Others
5.	Jiuzhaigou Hydropower Development Co., Ltd. And Sichuan Province Power Co., Ltd	Power purchase agreement	2013, 2014, 2015	Project participant
6.	Jiuzhaigou Hydropower Development Co., Ltd.	Operation log sheets	26/04/2013	Project participant
7.	Sichuan Province Administration of Quality and Technology Supervision	Accreditation certificate of Sichuan Electric Power Science Research Institute	Issued on 14/05/2012, valid to 13/05/2016	Project participant
8.	Sichuan Electric Power Science Research Institute	Calibration certificates for meters W1 and W2	Issued on 20/04/2013, 17/04/2014, 16/04/2015	Project participant
9.	EB	ACM0002 Consolidated baseline methodology for grid-connected electricity generation from renewable sources, version 12.3.0	dated 17/09/2010	Others
10.	EB	Clean Development Mechanism Validation and Verification Standard, version 9.0	dated 20/02/2015	Others
11.	EB	Clean Development Mechanism Project Standard, version 9.0	dated 20/02/2015	Others
12.	EB	Clean Development Mechanism Project Cycle Procedure, version 9.0	dated 20/02/2015	Others
13.	EB	Project design document form for CDM project activities, version 08.0	dated 22/07/2016	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	1	Section no.	All	Date: 20/06/2016
Description of CAR				
The Revised PDD is not completed with the valid version of PDD form (version 08.0).				
Project participant response				Date: 03/08/2016
The Revised PDD is completed using the valid version of PDD form.				
Documentation provided by project participant				
Revised PDD (version 3.0, dated 30/10/2016)				
DOE assessment				Date: 30/10/2016
By means of documentation review, the validation team is able to confirm that the Revised PDD is completed on the basis of valid version of PDD form (version 08.0) and is materially the same with the registered PDD, only except for the change of main meter W1's location.				

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				

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	23 March 2015	Initial publication.
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Document Type: Form		
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