



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	Hedcor Sibulan 42.5MW Hydroelectric Power Project Reference no.: 1620
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 01.0
Completion date of the validation report on PRCs	26/05/2017
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 04
Project participant(s)	<ul style="list-style-type: none"> Hedcor Sibulan, Inc. (Philippines) Hedcor Sibulan, Inc. (UK) Klinkenberg Traders B.V. (Netherlands)
Host Party	Republic of the Philippines
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 06)"

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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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	EI	Chan	Timothy	CTI	√	√	√	√
2.	Technical Expert								
3.	Local Expert								

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	Lin	Shunrong	CTI
2.	Approver	IR	Zhou	Lu	CTI

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

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Desk review of the monitoring plan in the revised PDD, monitoring report, monitoring methodology, project design document, applicable tools in particular attention to the frequency of measurements, quality of metering equipment's including calibration requirements, QA/QC procedures and other relevant documents. Please refer to Appendix 3.

C.2. On-site inspection

Duration of on-site inspection: DD/MM/YYYY to DD/MM/YYYY				
No.	Activity performed on-site	Site location	Date	Team member
1.	Visit to Sibulan Plant B	Barangay Sibulan, Sta. Cruz, Davao Del Sur, Davao Region, Mindanao, Philippines	12/10/2016	Timothy Chan
2.	Visit to Puan Switching Station	Puan, Talomo, Davao Del Sur, Davao Region, Mindanao, Philippines	12/10/2016	Timothy Chan
3.	Management meeting	Davao Del Sur, Davao Region, Mindanao, Philippines	13/10/2016	Timothy Chan

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
/i/	Jennifer I.	Agton	Hedcor Sibulan Inc.	12/10/2016	<ul style="list-style-type: none"> - Equipment installation - Plant operation and maintenance - Monitoring procedures - Missing data handling - QA/QC 	Timothy Chan
	Chrismer	Cariete	Hedcor Sibulan Inc.	12/10/2016	<ul style="list-style-type: none"> - CDM & technical training plan and records - Calibration schedule and records - Invoicing procedures 	
/ii/	Romeo D.	Panisal	Davao Light Power Company	12/10/2016	<ul style="list-style-type: none"> - Metering procedures - QA/QC - Billing procedures - Calibration schedule and records - Meter replacement procedures 	Timothy Chan
/iii/	Darlene	Arguelles	Hedcor Sibulan Inc.	13/10/2016	<ul style="list-style-type: none"> - Project design and implementation - Project related legal issues - Equipment installation and starting of operation - Monitoring period for this verification - Monitoring plan and Procedures - QA and QC 	Timothy Chan
	Kyoko	Tochikawa	Carbon Partner Asiatica	13/10/2016	<ul style="list-style-type: none"> - Training history and records - Data collection and record keeping - Operation and maintenance records - Missing Data handling - Emission Reductions Calculation - Management system 	

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	0	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	1	0
Changes to the project design of a registered project activity	0	0	0
Types of changes specific to afforestation and reforestation project activities	0	0	0
Others (please specify)	n/a	n/a	n/a
Total	0	1	0

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	Document check of CDM-PDD-FORM /15/ and revised PDD /2/
Findings	N/A
Conclusion	The revised PDD /2/ is completed as per the requirements of the applicable PDD form /15/.

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

Means of validation	Not applicable. No temporary deviation from the registered monitoring plan, monitoring methodology or standard baseline is requested.
Findings	Not applicable
Conclusion	Not applicable

D.3. Corrections

Means of validation	Not applicable. No correction is requested.
Findings	Not applicable
Conclusion	Not applicable

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

Means of validation	Not applicable. No change to the start date of the crediting period is requested.
Findings	Not applicable
Conclusion	Not applicable

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

Means of validation	Not applicable. No inclusion of a monitoring plan to the registered project activity is requested.
Findings	Not applicable
Conclusion	Not applicable

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

Means of validation	CTI conducted the document review and performed on-site assessment with project participants to conduct: <ul style="list-style-type: none"> - An assessment of the implementation and operation of the registered project activity - A check of the monitoring plan including meter arrangement, accuracy level,
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	calibration performance and observations of monitoring practices against the requirements of the registered PDD and the selected methodology
Findings	During on-site visit, it is reported by the PP that there was an additional meter installed at Toril Feeder on the request by the distributor, i.e. DLPC. However, the MR (version 1.0) /4/ has not provided information of this change. CAR1 is therefore raised.
Conclusion	<p>The PP has revised the MR (Version 1.3) /5/ to document the details of the changes. There is a request of permanent change of monitoring plan as described in Section B.2.5 of the MR /5/. A permanent change to the monitoring occurred as an additional revenue meter at a Toril Feeder has been added by the grid company (i.e. DLPC) since April 2014. As a result, there are a total of 2 revenue meters used to measure the electricity supplied to the grid. By reviewing the letters issued by DLPC in 2014 /12/ and 2015 /13/, the validation team confirms that the installation of the additional meter was initiated by DLPC which was out of the control of PP.</p> <p>The revised MR /5/ and PDD have documented the changes accordingly, which is consistent with the explanation provided during the management interview /i/ and the descriptions of metering setup for the request from DLPC /7/. The validation team can cross-check the date of change on 1st Apr 2014 with the letter issued by DLPC /12/. And the accuracy class of the meter can be cross-checked with the meter testing report /9/ conducted by DLPC. Therefore, CAR1 is closed</p> <p>The validation team considers that this change is a "Change of location of substation not within the control of the project participants" as per paragraph 5.(e) of Appendix 1 of the CDM Project Standard Version 09.0. No prior approval by the CDM Executive Board is required.</p>

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

Means of validation	Not applicable. No inclusion of a monitoring plan to the registered project activity is requested.
Findings	Not applicable
Conclusion	Not applicable

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

Means of validation	Not applicable. This is neither an afforestation nor reforestation project activity.
Findings	Not applicable
Conclusion	Not applicable

SECTION E. Internal quality control

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The final validation report underwent a technical review by a qualified independent reviewer before requesting issuance of the project activity. The technical review was performed by a technical reviewer qualified in accordance with CTI's qualification scheme for CDM validation and verification that meets the criteria of EB guidelines for qualification.

SECTION F. Validation opinion

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The validation team assigned by the DOE (CTI) concludes that the CDM Project Activity **Error! Reference source not found.** in Philippines, as described in the revised PDD (version 04, 23/01/2017) and monitoring report (version 1.3, 10/02/2017), meets all relevant requirements of the UNFCCC for CDM project activities including article 12 of the Kyoto Protocol, the modalities and procedures for CDM (Marrakesh Accords) project activities including carbon dioxide capture and storage in geological formation and the subsequent decisions by the COP/MOP and CDM Executive Board. The validation is conducted in-line with the VVS requirements.

The revised PDD has described the permanent change of meter arrangement accurately. The validation team considers that this change is a “Change of location of substation not within the control of the project participants” as per paragraph 5.(e) of Appendix 1 of the CDM Project Standard Version 09.0. No prior approval by the CDM Executive Board is required. The DOE therefore is pleased to issue a positive validation opinion.

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DLPC	Davao Light Power Corporation
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas
GWh	Giga Watt Hours
HSI	Hedcor Sibulan Inc.
IPCC	Intergovernmental Panel on Climate Change
kW	Kilo Watt
kWh	Kilo Watt Hours
Ly	Leakage
MW	Mega Watt
MWh	Mega Watt Hours
NGCP	National Grid Corporation of the Philippines
NPC	National Power Corporation
OSV	On Site Visit
PDD	Project Design Document
PDOE	Philippines Department of Energy
PP	Project Participants
PRC	Post-registration change
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. Timothy Chan

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	12/11/2015	12/11/2015	12/11/2015	12/11/2015	-	12/11/2015

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	12/11/2015
	TA 1.2: Renewables	12/11/2015
SS 3: Energy demand	TA 3.1: Energy demand	12/11/2015
SS 13: Waste handling and disposal	TA 13.1: Waste handling and disposal	12/11/2015

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:

Wu Lin

Wu Lin

Technical competent manager
Shenzhen, 12/11/2015

Ms. Shunrong Lin

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/nonrenewable sources)	TA 1.2: Renewables	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:

Wu Lin

Wu Lin

Technical competent manager
Shenzhen, 01/01/2015

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	Hedcor Sibulan Inc.	Registered PDD, Version 03.0	28/07/2014	Project participants
/2/	Hedcor Sibulan Inc.	Revised PDD (clean), Version 04	23/01/2017	Project participants
/3/	Hedcor Sibulan Inc.	Revised PDD (track change), Version 04	23/01/2017	Project participants
/4/	Hedcor Sibulan Inc.	Webhosted Monitoring Report, version 1.0	19/08/2016	Project participants
/5/	Hedcor Sibulan Inc.	Revised Monitoring Report, version 1.3	10/02/2017	Project participants
/6/	Hedcor Sibulan Inc.	Emission reduction calculation spreadsheet	-	Project participants
/7/	Hedcor Sibulan Inc.	Metering Setup for the request of DLPC	27/01/2014	Project participants
/8/	Hedcor Sibulan Inc.	Electrical Connection Diagram, 09/07/2011	09/07/2011	Project participants
/9/	Davao Light Power Corporation (DLPC)	Billing Meter Test Report issued by DLPC, Meter model: Landis+Gyr E650, Serial No.: 50457081, 31/03/2014	31/03/2014	Project participants
/10/	Landis + Gyr	Meter Specification Sheet, Model: Landis+Gyr E650	-	Project participants
/11/	-	On-site photo of revenue meter taken at Toril Feeder	-	Project participants
/12/	Davao Light Power Corporation (DLPC)	Temporary meter arrangement, 2014	01/04/2014	Project participants
/13/	Davao Light Power Corporation (DLPC)	Temporary meter arrangement, 2015	15/08/2015	Project participants
/14/	UNFCCC	Approved monitoring methodology: ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"	Version 06	Others
/15/	UNFCCC	CDM-PDD-FORM - Project Design Document form	Version 08.0	Others
/16/	UNFCCC	Clean Development Mechanism Validation and Verification Standard	Version 09	Others
/17/	UNFCCC	Clean Development Mechanism Project Cycle Procedure	Version 09	Others
/18/	UNFCCC	Clean Development Mechanism Project Standard (version 09.0)	Version 09	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	CAR1	Section no.	D.6	Date: 28/11/2016
Description of CAR				
Based on the on-site interview with the project manager, there was an amendment made to modify the electricity transmission from the power plant to Puan switching station. This change may be related to the measurement of the amount of electricity supplied to the grid. However, in the MR there is no description of the change. The PP is requested to explain the arrangement of electricity transmission and hence explain the influence to CDM monitoring.				
Project participant response				Date: 21/02/2017
This new information has been reflected in Section B.2.5 and Section C.1 of the revised MR. 1. The change took place in April 2014 when DLPC notified the PP. 2. The meter is accuracy class 0.2 3. The electricity is monitored by a bidirectional meter, same as the other revenue meters. E _{Gy} is the sum of the revenue meter at Puan and the revenue meter for the Toril feeder.				
Documentation provided by project participant				
Revised PDD and MR.				
DOE assessment				Date: 27/02/2017
Section B.2.5 and C.1 of MR has been revised to reflect the changes. According to the letters issued by DLPC and the interview with the CDM manager during on-site visit, the validation team confirms that the changes were requested by the grid company (i.e. DLPC). This is in line with clause 5 (e) of Appendix 1 of CDM Project Standard Version 9.0. It is considered as a change that do not required prior approval by the EB. The revised MR has also reflected the date of the changes, the accuracy class of the meter and the calculations of the total electricity supplied to the gird. The validation team can cross-checked with the date of change with the provided letter issued by DLPC on 1st Apr 2014. And the accuracy class of the meter can be cross-checked with the meter testing reported conducted by DLPC. Referring to the revised PDD, relevant info regarding to the permanent change (i.e. the meter arrangement) has been added consistently with the revised MR. CAR1 is therefore closed.				

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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