




Validation report form for post-registration changes for CDM project activities

(Version 01.0)

VALIDATION REPORT ON POST-REGISTRATION CHANGES (PRCs)

Title and reference number of the project activity	Inner Mongolia Electric Power Transmission and Transformation Chayouzhongqi Wind Farm 49.5MW Project
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	29/03/2017
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 3.0
Project participant(s)	Inner-Mongolia Electric Power Transmission and Transformation Co., Ltd. (as the project owner) Eco-Tec Asia (UK) Ltd (as the CERs buyer)
Host Party	China
Sectoral scope(s), selected methodology(ies), and where applicable, selected standardized baseline(s)	Sectoral scope 1: Energy Industries Approved consolidated baseline and monitoring methodology ACM0002 (Version 12.3.0): Consolidated baseline and monitoring methodology for grid-connected electricity generation from renewable sources.
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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Summary of the project activity:

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the validation of the the post-registration changes for the CDM project activity “Inner Mongolia Electric Power Transmission and Transformation Chayouzhongqi Wind Farm 49.5MW Project” (hereinafter referred to “The project”) in China (UNFCCC Ref. No. 8564) registered on 06/12/2012. The project is a new grid-connected renewable power generation project, which is located at Ulanqab City in the Inner Mongolia Autonomous Region of the People’s Republic of China. The centre geographical coordinates are 112°29’30”E (112.49167°E) and 41°21’00”N(41.35000°N). The project’s installed capacity is 49.5 MW, consisting of 25 sets of wind turbines, 24 of which with a rated capacity of 2000kW and 1 of which with a capacity of 1500 kW. The electricity generated by the project activity was supplied to the North China Power Grid (hereafter referred to as “NCPG”), and the project is estimated to deliver 97,196 tonnes CO₂ emission reduction annually.

Scope of the validation:

- 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 permanent changes are likely to lead to a reduction in the accuracy of the calculation of emission reductions.

Through document review and physical on-site investigation, the validation team confirms that the proposed post-registration changes do not require prior approval by the Board in accordance with the appendix to the Project Standard (PS). The post-registration changes have been described in the Revised PDD completed with the valid version of the PDD. In the CTI’s opinion, the post-registration 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 changes will not lead to a reduction in the accuracy of the calculation of emission reductions. Therefore, CTI recommends the approval of request for the changes as stated in the Revised PDD submitted by the project participant.

SECTION B. Validation team, technical reviewer and approver**B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Wang	Guolian	N/A	√	√	√	√

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	Shunrong	N/A
2.	Approver	IR	Zhou	Lu	N/A

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

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To determine whether the permanent changes from the registered monitoring plan comply with the relevant requirements in the Project standard. CTI reviewed:

- The registered PDD for the project activity /1/, the validation report /2/ and the Revised PDD /4/;
- Baseline and monitoring methodology ACM0002 (Version 12.3.0) applied by the project /7/;
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board /8/-/12/; and
- Other information and references relevant to the project activity.

C.2. On-site inspection

Duration of on-site inspection: 19/10/2015				
No.	Activity performed on-site	Site location	Date	Team member
1.	To determine whether there are permanent changes from the registered monitoring plan	The project site and the control room of the plant	19/10/2015	Wang Guolian
2.	To determine whether the permanent changes comply with the relevant requirements in the Project standard	The office of the project	19/10/2015	Wang Guolian

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Qu	Yiping	Eco-tec Asia (Beijing) Co.,Ltd.	19/10/2015	<ul style="list-style-type: none"> - Monitoring Plan - Monitoring data and Monitoring Report - GHG Calculations 	Wang Guolian
2	Li	Xuefeng	Inner-Mongolia Electric Power Transmission and Transformation Co., Ltd.	19/10/2015	<ul style="list-style-type: none"> - Monitoring Plan and management procedures - Monitoring data - Data uncertainty and residual risks (QA/QC) 	Wang Guolian

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)	0	0	0
Total	0	1	0

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

Means of validation	<p>At the time of the PRC validation period, the latest available version of CDM-PDD-FORM is Version 08.0.</p> <p>By checking the Revised PDD (Version 3.0 dated 07/02/2017, both in tracked-change and clean versions)/4/, CTI confirmed that the latest version has been applied for the Revised PDD and the input is according to the instructions therein for filling out the PDD form/12/.</p> <p>The version of PDD form for the revised PDD is later than the one of the registered</p>
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	PDD. By comparing the revised PDD with the registered PDD, CTI confirms that the information transferred to the Revised PDD is materially the same as that in the registered PDD. The changes are only related the post-registration changes to the registered monitoring plan (as described in the Section D.6 of this report).
Findings	NA
Conclusion	The Verification Team confirms that the revised PDD is compliance with the valid version of the CDM-PDD-FORM and the instructions therein for filling out the CDM-PDD-FORM, and the information transferred to the later valid version applied for the revised PDD is materially the same as that in the registered PDD.

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

Means of validation	NA
Findings	NA
Conclusion	NA

D.3. Corrections

Means of validation	NA
Findings	NA
Conclusion	NA

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

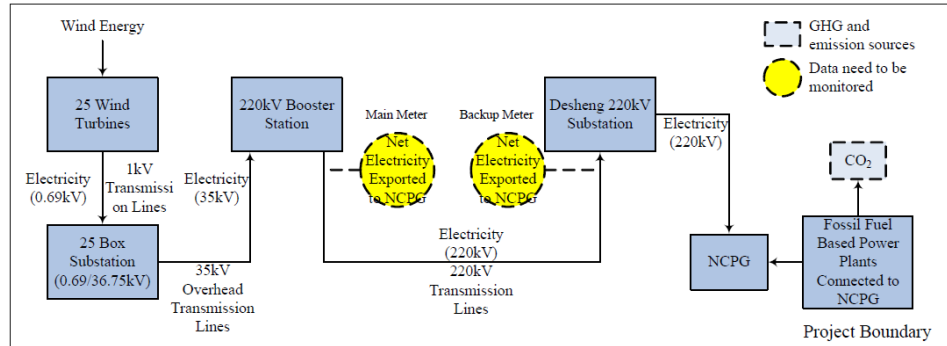
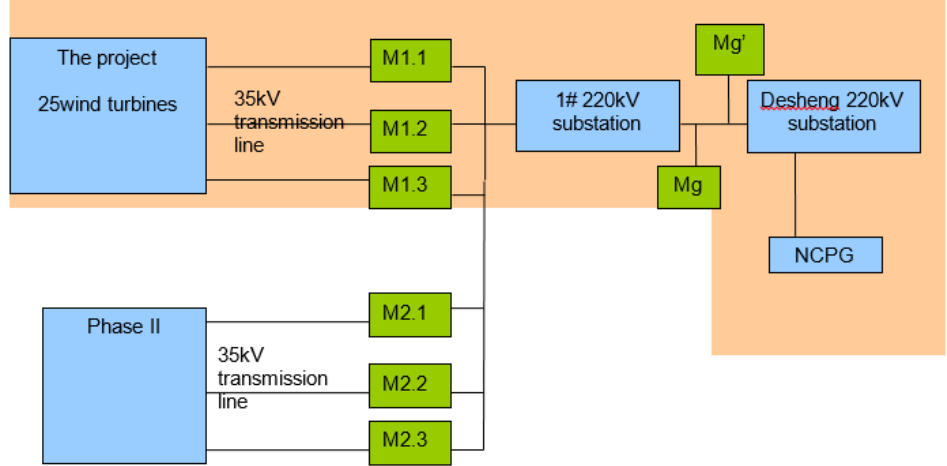
Means of validation	NA
Findings	NA
Conclusion	NA

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

Means of validation	NA
Findings	NA
Conclusion	NA

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

Means of validation	<p>The post-registration changes to the registered monitoring plan is identified during the process performing the 1st verification of Inner Mongolia Electric Power Transmission and Transformation Chayouzhongqi Wind Farm 49.5MW Project. The changes are assessed in accordance with applicable validation requirements related to the permanent changes from the registered monitoring plan in the VVS as below:</p> <p>As per the registered monitoring plan, the electricity would be monitored by the main meter installed at the 220kV booster station and the backup meter installed at the Desheng 220kV substation. In case of the gateway meter falling out of order, the readings from the evaluation meter will be used for reference with consideration of historical transmission line losses.</p> <p>After the proposed project registered, the Phase II project with the same owner has been operated from 31/12/2012 /5/. As per the requirement of the Grid Company /6/, the proposed project shares the gate meter (meter Mg) with Phase II project (started operation on 31/12/2012) to monitor the electricity supplied to the grid and the electricity consumed by these two projects. For the purpose of invoicing, another six meters (M1.1, M1.2, M1.3 and M2.1, M2.2, M2.3) are installed at the 35kV transmission lines of the project and Phase II respectively. (as shown in Fig 1 below).</p> <p>Fig 1 Comparison of the monitoring system between the registered PDD and Revised PDD</p>
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Registered
PDDRevised
PDD

Corresponding to the changes of the monitoring structure, the monitoring for the parameters $EG_{\text{export},y}$ (electricity exported to the grid by the project) and $EG_{\text{import},y}$ (electricity imported from the grid to the project) changed from directly measured by the main meter installed at the 220kV booster station (the meter installed at the Desheng 220kV substation as the backup) to calculated based on the measured values of the meters as below:

- The electricity exported to the grid by the project in year y ($EG_{\text{export},y}$)

$$EG_{\text{export},y} = ES_{\text{total,export},y} \times \frac{\sum_{i=1}^3 ES_{I,i,\text{export},y}}{\sum_{i=1}^3 ES_{I,i,\text{export},y} + \sum_{i=1}^3 ES_{II,i,\text{export},y}}$$

$ES_{\text{total,export},y}$: the quantity of electricity exported to the grid monitored by Mg;

$ES_{I,i,\text{export},y}$: the quantity of electricity exported to the grid monitored by M1.i (i=1,2,3);

$ES_{II,i,\text{export},y}$: the quantity of electricity exported to the grid monitored by M2.i (i=1,2,3).

- The electricity imported from the grid by the project in year y ($EG_{\text{import},y}$)

$$EG_{\text{import},y} = ES_{\text{total,import},y} \times \frac{\sum_{i=1}^3 ES_{I,i,\text{import},y}}{\sum_{i=1}^3 ES_{I,i,\text{import},y} + \sum_{i=1}^3 ES_{II,i,\text{import},y}}$$

$ES_{\text{total,import},y}$: the quantity of electricity imported from the grid monitored by Mg;

$ES_{I,i,\text{import},y}$: the quantity of electricity imported from the grid monitored by M1.i (i=1,2,3);

$ES_{II,i,\text{import},y}$: the quantity of electricity imported from the grid monitored by M2.i (i=1,2,3).

By document review and on site investigation, CTI confirms that:

- the accuracy of the meters meets the requirement of the registered and Revised

	<p>monitoring plan (no lower than 0.5s.);</p> <ul style="list-style-type: none"> the calculation of $EG_{\text{export},y}$ and $EG_{\text{import},y}$ is reasonable. <p>The PDD has been revised to indicate the changes from the registered monitoring plan. Through the on-site investigation and the document review, the Verification Team has confirmed that the actual monitoring structure is in accordance with the Power Purchase Agreement /6/ and revised monitoring plan reflects the actual project information.</p> <p>As per the Project Standard (Ver.9.0), for the “Permanent changes from the registered monitoring plan”, if the changes to the monitoring of the registered CDM project activity is related to the one(s) listed below which do not require prior approval by the Board:</p> <p>(a) Change of calibration frequency or practice for monitoring equipment not within the control of project participants or the coordinating/managing entity;</p> <p>(b) Change of accuracy/type/model of meter(s) as per a power purchase agreement (PPA); or</p> <p>(c) Change of location of meter(s) as per a PPA;</p> <p>(d) Change of location of electricity meters if the transmission loss is taken into account;</p> <p>(e) Change of location of substation not within the control of the project participants or the coordinating/managing entity;</p> <p>(f) Change of calibration frequency or practice for monitoring equipment as per the applied methodology or national standard; or</p> <p>(g) Change of frequency of monitoring certain parameters as per the applied methodology.</p> <p>As stated above, the changes of the proposed project are only related to the changes on the quantity and location of the monitoring equipment (i.e. the meters need to be installed at the 35kV transmission lines of each project for cutting the quantity of total electricity of two projects as per the requirement of PPA). It considers the changes belongs to the item (c), thus the proposed changes do not require the prior approval by the EB. CTI confirms that the changes do not affect the application of the applied methodology and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan. And also the changes do not lead to a reduction in the accuracy of the calculation of emission reductions.</p>
Findings	CAR-01: As per the interview with the project owner and verifying the Power Purchase Agreement, the verification team found that the location of the monitoring meters was changed as per the requirement of the power grid company after the subsequent Phase II wind power plant finished the construction and shared the substation of this project. PP is requested to provide the revised PDD which indicates the actual monitoring scheme. (Refer to Appendix 4)
Conclusion	CTI confirms that the post-registration changes comply with the relevant requirements related to the permanent changes from the registered monitoring plan in the Project Standard (Ver. 9.0) and do not require the prior approval by the EB.

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

Means of validation	NA
Findings	NA
Conclusion	NA

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

Means of validation	NA
Findings	NA
Conclusion	NA

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.

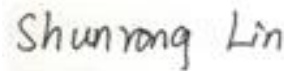
SECTION F. Validation opinion

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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 changes ensure 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 as stated in the Revised PDD submitted by the project participant. In line with the PCP, CTI can submit the changes for acceptance by the Board as part of the request for issuance.



Ms. Wang Guolian
Team Leader
29/03/2017



Ms. Lin Shunrong
Technical Reviewer
29/03/2017

Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EB	Executive Board
FAR	Forward Action Request
MR	Monitoring Report
NCPG	North China Power Grid
PCP	CDM project cycle procedure
PDD	Project Design Document
PPA	Power Purchase Agreement
PS	Project Standard
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

Ms. Wang Guolian

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:

Lin Wu

Wu Lin

Technical competent manager
Shenzhen, 01/01/2015

Ms. Lin Shunrong

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:

Lin Wu

Wu Lin

Technical competent manager
Shenzhen, 01/01/2015

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	Eco-tec Asia (Beijing) Co.,Ltd.	Registered CDM-PDD for project activity	Version 2.0 dated 18/09/2012	Project participant
/2/	Bureau Veritas	Validation report for project activity	Version 01 dated 22/11/2012	Others
/3/	Eco-tec Asia (Beijing) Co.,Ltd.	Published version of Monitoring Report for the 1 st verification of Inner Mongolia Electric Power Transmission and Transformation Chayouzhongqi Wind Farm 49.5MW Project	Version 01 dated 14/09/2015	Project participant
/4/	Eco-tec Asia (Beijing) Co.,Ltd.	Revised PDD for project activity (both in tracked-change and clean versions)	Version 3.0 dated 07/02/2017	Project participant
/5/	Inner-Mongolia Environment Protection Bureau	Approval of application for the environment protection acceptance of Inner Mongolia Electric Power Transmission and Transformation Phase II Project	31/12/2012	Project participant
/6/	Inner-Mongolia Electric Power Transmission and Transformation Co., Ltd. and Inner Mongolia Electric Power Company	Power Purchase Agreement for Inner Mongolia Electric Power Transmission and Transformation Chayouzhongqi Wind Farm 49.5MW Project	-	Project participant
/7/	EB	Consolidated baseline methodology for grid-connected electricity generation from renewable sources- ACM0002	Version 12.3.0	Others
/8/	EB	Clean Development Mechanism Validation and Verification Standard	Version 9.0	Others
/9/	EB	Clean Development Mechanism Project Standard	Version 9.0	Others
/10/	EB	Clean Development Mechanism Project Cycle Procedure	Version 9.0	Others
/11/	EB	Attachment: Instructions for filling out the validation report form for post-registration changes for CDM project activities of CDM-PRCV-FORM	Version 01.0	Others
/12/	EB	Attachment: Instructions for filling out the project design document form for CDM project activities of CDM-PDD-FORM	Version 06.0	Others

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

Table 1. CL from this validation

CL ID	NA	Section no.	NA	Date: DD/MM/YYYY
Description of CL				
NA				
Project participant response				Date: DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD/MM/YYYY
NA				

Table 2. CAR from this validation

CAR ID	01	Section no.	D.6	Date: 20/10/2015
Description of CAR				
As per the interview with the project owner and verifying the Power Purchase Agreement, the verification team found that the location of the monitoring meters was changed as per the requirement of the power grid company after the subsequent Phase II wind power plant finished the construction and shared the substation of this project. PP is requested to provide the revised PDD which indicates the actual monitoring scheme.				
Project participant response				Date: 21/03/2017
<i>There are permanent changes of practice for monitoring equipment not within the control of project participants which has been indicated in the Revised PDD.</i>				
Documentation provided by project participant				
<i>Revised PDD (Version 3.0 dated 07/02/2017)</i>				
DOE assessment				Date: 22/03/2017
<i>The Revised PDD has been provided by PP to indicate the permanent changes in the monitoring system. The Verification Team confirms the updated monitoring system is consistent with the actual condition and according to the requirement of the Grid Company. As per the Ver.9.0 of PS, these changes do not need to get the prior approval from EB. Therefore, the Revised PDD will be submitted following the verification documents. CAR 1 is closed.</i>				

Table 3. FAR from this validation

FAR ID	NA	Section no.	NA	Date: DD/MM/YYYY
Description of FAR				
NA				
Project participant response				Date: DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD/MM/YYYY
NA				

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Document information

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01.0	23 March 2015	Initial publication.
Decision Class: Regulatory		
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Business Function: Registration		
Keywords: post-registration change, project activities, validation report		