



VCS VERIFICATION REPORT

INNER MONGOLIA WUJIER PHASE I WIND POWER PROJECT

(VCS PROJECT ID: 1947)



Document Prepared By

Shenzhen CTI International Certification Co., Ltd

Project Title	Inner Mongolia Wujier Phase I Wind Power Project
Version	01.1
Report ID	CTI/NB-2021-0608

Report Title	Inner Mongolia Wujier Phase I Wind Power Project
Client	China Carbon N.V
Pages	29
Date of Issue	16/11/2021
Prepared By	Shenzhen CTI International Certification Co., Ltd
Contact	Address: F8-A CTI Building, No.4 LiuXianSan Road, Xin'an Street, Bao'an District, 518101, Shen Zhen, China Tel: +86 10 65580012 Email: linshunrong@cti-cert.com Website: http://www.cti-cert.org
Approved By	Zhou Lu 
Work Carried Out By	Team Leader: Lin Shunrong Technical Reviewer: Wang Guolian

Summary:

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the verification of the emission reductions reported for the project activity “Inner Mongolia Wujier Phase I Wind Power Project” (VCS Project ID:1947) for the monitoring period 21/12/2019-03/07/2020 within the 1st VCS crediting period 04/07/2010-03/07/2020, to review and determine the monitored reductions in GHG emissions that have occurred as a result of the project activity. These emission reductions are claimed as Verified Carbon Units (VCU) under the Verified Carbon Standard (VCS) version 4.

The verification was performed on the basis of VCS Programme Guide version 4.0 and VCS Standard version 4.1 for the VCS projects, as well as criteria given to provide for consistent project operations, monitoring and reporting. The verification was conducted by means of document review, follow-up interviews and site inspections, and the resolution of outstanding issues. The verification team identified one CL, no CAR nor FAR in this monitoring period.

In CTI's opinion, the GHG emission reductions reported for the project in the monitoring report (version 3.0 dated 05/11/2021) are fairly stated. The GHG emission reductions of the period from 21/12/2019-03/07/2020 within the 1st VCS crediting period were calculated correctly on the basis of approved methodology ACM0002 “Consolidated methodology for grid-connected electricity generation from renewable

sources" (version 10) and the monitoring plan contained in the approved CDM PDD (version 4.0 dated 19/03/2013) and VCS PD (version 2.0 dated 26/07/2019).

CTI does not assume any responsibility towards the issuance and utilization of the VCUs hereby verified and certified. Request for issuance of VCUs shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration.

The verification of reported emission reductions is based on the information made available to CTI and the engagement conditions detailed in this report. CTI cannot be held liable by any party for decisions made or not made based on this report.

Hence, CTI is able to certify that the emission reductions from the "Inner Mongolia Wujier Phase I Wind Power Project" during the period amount to 63,148 tCO₂e.

CONTENTS

Contents.....	4
1 Introduction.....	6
1.1. Objective.....	6
1.2. Scope and Criteria.....	6
1.3. Level of Assurance.....	7
1.4. Summary Description of the Project.....	7
2. Verification Process.....	8
2.1. Method and Criteria.....	8
2.2. Document Review.....	8
2.3. Interviews.....	9
2.4. Site Inspections.....	10
2.5. Resolution of Findings.....	11
2.6. Eligibility for Validation Activities.....	11
3. Validation Findings.....	12
3.1. Participation under Other GHG Programs.....	12
3.2. Methodology Deviations.....	13
3.3. Project Description Deviations.....	13
3.4. Grouped Project.....	13
4. Verification Findings.....	13
4.1. Project Implementation Status.....	13
4.2. Safeguards.....	18
4.3. AFOLU-Specific Safeguards.....	19
4.4. Accuracy of GHG Emission Reduction and Removal Calculations.....	19
4.5. Quality of Evidence to Determine GHG Emission Reductions and Removals.....	22
4.6. Non-Permanence Risk Analysis.....	22
5. Verification conclusion.....	22
APPENDIX A: Abbreviations.....	25
APPENDIX B: references.....	26

APPENDIX C: Corrective Action Requests, clarification requests and Forward Action Requests.....	29
--	-----------

1 INTRODUCTION

China Carbon N.V has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the verification and certification of emission reductions reported for the “Inner Mongolia Wujier Phase I Wind Power Project” (the project) for the monitoring period 21/12/2019-03/07/2020. This report contains the findings from the verification and includes a verification statement for the verified carbon units.

1.1. Objective

Verification is the periodic independent review and ex-post determination by an accredited verification body of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined verification period.

A verification statement is the written assurance by a verification body that, during a specific period in time, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and provide a verification statement of emission reductions reported for the “Inner Mongolia Wujier Phase I Wind Power Project” for the period 21/12/2019-03/07/2020.

1.2. Scope and Criteria

The scope of the verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement;
- To verify that reported GHG emissions data is sufficiently supported by evidence.

The criteria of the verification are:

- VCS Program Guide (version 4.0)/30/
- VCS Standard (version 4.1)/29/ and other relevant requirements defined by Verra;
- The approved methodology ACM0002 (version 10)/33/ applied by the project.

The verification shall ensure that reported emission reductions are complete and accurate in order to be verified.

1.3. Level of Assurance

The verification report expresses a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement. CTI applied a materiality threshold of 5% with respect to omission or misstatements concerning reported quantities as per VCS standard.

1.4. Summary Description of the Project

1.4.1. Sectoral Scope and Project Type

According to the VCS Program Guide (version 4.0)/30/, the project is applicable under the following activity categories:

- Sectoral Scope: 1. Energy (Renewable/non-renewable)
- Project Type: Wind power project

According to Annex A of the Kyoto Protocol, the project is applicable under the Sectoral Scope 1: Energy Industries (renewable/ non-renewable sources).

1.4.2. Project Background

The project is located in Hangjin County, Ordos City, Inner Mongolia, P. R. China, with east longitude 107°21'39" and north latitude 40°11'40". The project activity was registered as a CDM project with Ref.3387 on 04/07/2010 and the 1st CDM crediting period is from 04/07/2010-03/07/2017, which has been renewed on 17/12/2020 with the 2nd CDM crediting period from 04/07/2017-03/07/2024. The project has been registered as VCS project with Ref. VCS 1947 under VCS Standard Version 3.7. According to per the VCS standard, the project start date is 16/09/2010 when the project put into operation and began generating GHG emission reductions. However, the project proponent determined 04/07/2010 as the start date of the crediting period under VCS. The first VCS crediting period is 04/07/2010-03/07/2020 lasting for 10 years in line with the requirement of VCS version 3. The amount of 532,558tCO₂e VCUs have been issued for the monitoring period from 21/12/2015-20/12/2019.

The installed capacity of the project is 49.5MW equipped with 33 sets of 1500kW wind turbine-generators in type of Jinfeng 82/1500 manufactured by Xinjiang Goldwind Science&Technology Co., Ltd.. The average annual power delivered to the grid by the project is expected to be 126,821 MWh. The electricity generated by the project activity is supplied to the North China Power Grid (hereafter referred to as "NCPG"), and the project is estimated to deliver 120,508tonnes CO₂ emission reduction annually.

2. VERIFICATION PROCESS

2.1. Method and Criteria

The verification was performed through means of the following three phases in accordance with the requirement of the approved CDM PDD (version 4.0 dated 19/03/2013) and the GAP VCS PD (version 2.0 dated 26/07/2019), the applied methodology, and the VCS Standard (version 4.1) and other relevant VCS requirements:

- A desk review of the monitoring report and all support documents;
- Follow-up interviews with project stakeholders and site inspection;
- The resolution of outstanding issues and the issuance of the verification report and statement.

The following sections outline each step in more detail.

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- The emission reduction calculations and the relevant data records;
- The calibration and maintenance records for the monitoring instruments;

The management systems to support the project operation and monitoring

2.2. Document Review

Based on the requirements of competency, experience and qualified sectoral scopes, CTI appointed a verification team in accordance with CTI's internal procedures.

Function	Name	Technical competence	Task Performance*
Team Leader	Lin Shunrong	1.2, 14.1, 15.1	☒ DR ☒ SV ☒ RP ☐ TR
Technical Reviewer	Wang Guolian	1.2, 3.1, 4.1, 5.1, 5.2, 11.1, 11.2, 12.1	☒ DR ☐ SV ☐ RP ☒ TR

*DR=Document review; SV=Site visit; RP=Reporting; TR=Technical review

In addition to the VER/VCU monitoring report/1/, VCS PD (version 2.0 dated 26/07/2019) /15/, emission reduction calculation spreadsheet/2/, the following documents also were assessed as a part of the verification audit:

- The approved CDM PDD (version 4.0 dated 19/03/2013) /14/and approved CDM PDD for RCP (version 5.0 dated 22/09/2020) /21/for the project activity, including the monitoring plan and the corresponding CDM validation reports/19/-/21/;

- The previous VER/VCU monitoring report/24/ and verification report/23/, and the previous CDM monitoring reports/25/ and verification reports/26/;
- Baseline and monitoring methodology ACM0002 (version 10) applied by the project/33/;
 - Relevant decisions, clarifications and guidance from the Verra/29/-/33/; and
 - Other information and references relevant to the project activity.

During the desk review, CTI has applied standard auditing techniques to assess the quality of information provided. The following activities were performed:

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures; and

An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

2.3. Interviews

On 02/07/2021, CTI visited the project proponent Inner Mongolia Xinjin Wind Power Co., Ltd. to perform on-site assessment. The key personnel of the project were interviewed or assisted the verification team /34/. Main topics of the interview cover implementation of the project construction, applicability of selected methodology, implementation of project monitoring, emission reduction calculation, etc.

The key personnel interviewed/34/ are summarized in the table below:

Interviewed personnel	Position	Subject
Mr. He Jiawei	Chief of Inner Mongolia Xinjin Wind Power Co., Ltd.	Operation of the project activity; Implementation of the monitor plan of the project activity; Data collection and data achievement; Calibration of meters and equipment maintenance; Data collection and ER calculation; Local stakeholders' consultation; Project's sustainable development contributions.
Mr. Song Qiang	Engineer of Inner Mongolia Xinjin Wind Power Co., Ltd.	
Mr. Li Yanlong	Appointed staff of Inner Mongolia Xinjin Wind Power Co., Ltd. for LSC	
Mr. Siqingba Teer	Local villager	
Mr. Wulan Gerile	Local villager	
Mr. Menke Batu	Local villager	
Ms. Li Yiyu	Project Manager of China Carbon N.V	

2.4. Site Inspections

During the on-site assessment, CTI has applied standard auditing techniques to assess the quality of information provided. The following aspects of the project activity have been verified:

- An assessment of the implementation and operation of the registered project activity is as per the approved CDM PDD and VCS PD of the project activity;
- A review of information flows for generating, aggregating and reporting the monitoring parameters; and
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the approved CDM PDD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and Electricity Sales Receipts;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the approved CDM PDD, and the selected methodology;
- A review of calculations and assumptions made in determining the GHG data and emission reductions; and

- An identification that quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

The data presented in the monitoring report were assessed by review of the detailed project documentation and production records, as well as by interviews with personnel from the project developer Inner Mongolia Xinjin Wind Power Co., Ltd. and the project VCU buyer China Carbon N.V, and observation of collection of measurements, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. This has enabled the verification team to assess the accuracy and completeness of reported monitoring results, to verify the correct application of the approved monitoring methodology and the determination of the emission reductions.

In addition, all parameters required by the monitoring methodology ACM0002 (version 10), and the management system were assessed during the site visit.

2.5. Resolution of Findings

A corrective action request (CAR) shall be raised, where:

- i. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- ii. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- iii. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project proponents.

A clarification request (CL) shall be raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

The verification team identified one CL in this monitoring period, and no CARs was raised. The CL was satisfactorily addressed by the project proponents in the revised monitoring report and PD (refer to Appendix A for further details).

2.5.1. Forward Action Requests

A forward action request (FAR) is issued for actions if the monitoring and reporting require attention and/or adjustment for the next monitoring period.

CTI confirmed that there was no FAR identified in previous verification/23/, and no FAR was raised during this verification.

2.6. Eligibility for Validation Activities

The previous validation and verification activities under both CDM and VCS programmes are shown as below:

The project has been validated by Korean Foundation for Quality under the CDM rules and registered as CDM project on 04/07/2010; /19/

The post-registration change of the project activity has been validated by Bureau Veritas Certification and approved by CDM EB on 27/08/2013; /20/

The validation for the 2nd CDM renewal crediting period 04/07/2017-03/07/2024 was undertaken by Applus+ Certification and approved on 17/12/2020; /21/

The CDM verification for the monitoring period 21/01/2013-20/12/2015 was undertaken by China Classification Society Certification Company issued on 07/10/2016; /26/

The VCS GAP validation was completed by Applus+ Certification on 26/07/2019 under VCS standard version 3.7/22; and

The VCS verification for the monitoring period 21/12/2015-20/12/2019 was complete by Applus+ Certification on 02/01/2020. /23/

CTI was accredited in Sectoral Scope 1 on validation and verification and thus is eligible for validation and verification activities on the proposed project. By checking the UNFCCC website, the VCS pipeline and the previous verification reports/25/, it is confirmed the verification for this monitoring period 21/12/2019-03/07/2020 is the only verification activity undertaken by CTI, which is not more than six consecutive years and thus in line with the requirement for VVB stipulated in Section 4.1.20 of VCS standard version 4.1.

3.VALIDATION FINDINGS

The project activity is registered as CDM project activity under the UNFCCC on 04/07/2010 with the Registration Ref. No. 3387.The CDM crediting period of the project starts on 04/07/2010 with a renewable crediting period of 3*7 years.

By checking the approved CDM PDD, and the VCS PD, via site visit interview with project owner, it is confirmed that the project started operation on 16/09/2010 which is the project start date according to the requirement of VCS. The first VCS crediting period for the project activity is from 04/07/2010-03/07/2020. The emission reductions of 532,558tCO₂e from 21/12/2015-20/12/2019 have been claimed as Voluntary Carbon Units (VCUs) under the Voluntary Carbon Standard (VCS 3.7).

3.1. Participation under Other GHG Programs

The project has been registered as a CDM project on 04/07/2010 under the UNFCCC with Ref. 3387 The 1st CDM crediting period is from 04/07/2010-03/07/2017 and the 2nd CDM crediting period is renewed from 04/07/2017-03/07/2024. By checking the UNFCCC website (<https://cdm.unfccc.int/Projects/DB/KFQ1265789122.23/view?cp=1>), it is confirmed emission reductions during the monitoring periods 04/07/2010-20/11/2012, 21/11/2012-20/01/2013 and 21/01/2013-20/12/2015 have been applied for CERs, and total 348,849 tCO₂e CERs were issued. By checking the UNFCCC website

(https://cdm.unfccc.int/Projects/DB/KFQ1265789122.23/iProcess/CCSC_DOE1458553400.29/view) , it is confirmed no GHG emission reductions has been issued or requested for issuance under the CDM program during the current 2nd CDM crediting period.

CTI only performed verification activities on the proposed monitoring period within the 1st renewable crediting period for the project according to the VCS Program Guide.

3.2. Methodology Deviations

The validation process/19/ has assessed all factors and issues that constitute the basis for emission reductions from the project according to the applicable CDM methodology ACM0002 (version 10) /33/. There was not any methodology deviation applied to this project. Details refer to section 4.1.

3.3. Project Description Deviations

The verification team assessed through visual inspection and document review that all physical features of the proposed project activity including data monitoring, reporting and collecting systems have been implemented in accordance with the approved CDM PDD, and VCS PD. CTI confirms that the project is fully implemented in accordance with the project description contained in approved CDM PDD, and no deviations for the project description. Details refer to section 4.1.

3.4. Grouped Project

The project was not a grouped project; hence this clause is not applicable.

4. VERIFICATION FINDINGS

This section summarises the findings from the verification of the emission reductions reported for the “Inner Mongolia Wujier Phase I Wind Power Project” for the monitoring period 21/12/2019-03/07/2020.

4.1. Project Implementation Status

4.1.1. Project Implementation in accordance with the registered project design document

The project is a wind power grid-connected plant and locates in Hangjin County, Ordos City, Inner Mongolia, P. R. China. The geographical coordinates are verified by GPS system as east longitude 107°21'39" and north latitude 40°11'40". The total installed capacity is 49.5MW equipped with 33 sets of 1500kW wind turbine-generators in type of Jinfeng82/1500. The project started operation on 16/09/2010. The actual implementation of the project during this verification period was verified in terms of name plates of turbines and generators and the equipment purchase contract. The details of

the turbines and generators with respect to their installation and capacity have been verified to be consistent with description indicated in the approved CDM PDD.

The electricity generated by the project activity is supplied to the NCPG, which can be confirmed by the Power purchase agreement (PPA) signed between Inner Mongolia Xinjin Wind Power Co., Ltd. and Inner Mongolia Grid Company/3/. All the monitoring system in operation period is consistent with the description in the approved CDM PDD. The control system at the power plant is automated and assures continuous operation, including monitoring on malfunction of equipment. By checking the daily operation and maintenance records/7/, CTI can confirm that no serious malfunction happened and the plant was under a normal operation as expected in this monitoring period.

On-site training for the related procedures including monitoring, recording and reporting was verified to be in place/6/ and their implementation was confirmed by interview with the key operators/34/ and observing the operation.

CTI confirms that the project implementation is in accordance with the project description contained in approved CDM PDD. Furthermore, through visual inspection and document review, it is confirmed that all physical features of the project activity including data collection systems and storage systems have been implemented in accordance with the approved CDM PDD.

4.1.2. Compliance of monitoring plan with monitoring methodology

CTI is able to confirm that the monitoring plan in the approved CDM PDD(version 4.0 dated 19/03/2013) is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 10).

4.1.3. Compliance of monitoring with the monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the approved CDM PDD (version 4.0 dated 19/03/2013). CTI confirms that all parameters stated in the monitoring plan are monitored and reported appropriately. All parameters required to be monitored by the monitoring plan as per the monitoring methodology ACM0002 (version 10) and the management system were assessed during the site visit. The monitoring report lists each parameter required by the monitoring plan and the information flow (i.e. from data generation, aggregation, recording, calculation and reporting) for these parameters is provided. The information flow for each parameter is further verified in the following sections.

Parameters fixed ex ante

“Data and parameters fixed ex ante” in the MR are checked against the approved CDM PDD and GAP VCS PD. The parameter $EF_{grid,CM,y}$ is the combined emission factor of the grid, which was determined ex-ante at the validation stage and will be fixed during the first crediting period. CTI verified and confirms that the emission factor used in the monitoring report is in compliance with the approved CDM PDD.

Parameters monitored

CTI conducted document review and performed on-site assessment with project stakeholders to:

- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- Determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the approved CDM PDD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and Electricity Transaction Notes (ETNs).

An identification that quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

According to the registered monitoring plan, the parameters to be monitored are as below:

$EG_{\text{facility},y}$ - Quantity of net electricity generation supplied by the project to the grid in year y

Based on the on-site visit and checking the connection diagram, PPA and meters, it is confirmed that two bidirectional meters (main meter M1 and check meter M2) are installed at the high voltage side of the on-site transformer to monitor the electricity exported to ($EG_{\text{export},y}$) and imported from ($EG_{\text{import},y}$) the grid company. Therefore, $EG_{\text{facility},y}$ is calculated as the difference between $EG_{\text{export},y}$ and $EG_{\text{import},y}$. Check meter M2 services as the backup meter for key meter M1 in case of M1 out of order.

The verification team had on-site checked the location of the meters against the diagram of power connection system/4/ and found them to be consistent and also installed in accordance with the approved CDM PDD. All the monitoring facilities and system have been verified by CTI during on-site visit.

Both meters' readings of $EG_{\text{export},y}$ and $EG_{\text{import},y}$ are continuously measured and recorded by trained staff of the project as agreed with the grid company at 24:00 on the 24th day of each month/8/. The ETNs/9/ issued by the grid company have been used for cross-check of electricity exports and imports monitored by main meter M1. Through a cross check, the conservative values from electricity exports and imports were applied to calculate the net electricity supplied to the grid by the project. The data reported in the monitoring report and ERs calculation spreadsheet has been verified by the verification team. Supporting references and data required to determine the net electricity supplied to the grid by the project is found to be complete and transparent.

To be concluded, monitoring of data and parameters related to the GHG emission reductions in the project activity have been carried out in accordance with the approved monitoring plan.

Monitoring equipment and calibration

The documents review was carried out. Particular attention was paid to the frequency of measurements, the quality of the monitoring equipment including calibration performance and

observations of monitoring practices against the requirements of the approved CDM PDD and the methodology ACM0002 (version 10) and corresponding tool(s), and the quality assurance and quality control procedures.

All monitoring meters have been calibrated annually as per the monitoring plan covering this monitoring period. The relevant information of the calibration is listed as below:

Item	Main Meter M1	Check Meter M2
Type	DSSD1169	DSSD1169
SN	97668449	97668445
Accuracy Class	0.2S	0.2S
Calibration Frequency	Annually	Annually
Calibration Date	14/08/2019 13/05/2020	14/08/2019 13/05/2020
Validity	13/08/2020 12/05/2021	13/08/2020 12/05/2021
Calibration Entity	Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute	

Calibration records and accreditation certificates/16//17/ have been verified by the verification team. The accuracy of main meter and check meter is verified to comply with the requirement in the approved CDM PDD, and in compliance with the Technical administrative code of electric energy metering (DL/T448-2016)/18/. The calibration frequency of meters is annual, which is consistent with the approved CDM PDD. Based on the site visit and by checking the calibration reports, CTI found the calibration frequency of these meters is annual, which is in line with the registered CDM, CTI confirms that:

- Both meters have been installed in accordance with the monitoring plan;
- The meters' accuracy is in line with the requirement of the monitoring plan;
- The calibration frequency of the meters is annual, which is in line with the monitoring plan.

And the calibrations are verified to be valid for the whole reporting period.

CL 01 was raised for requesting calibration information of all monitoring meters covering the reporting monitoring period, which has been successfully closed, Refer to Appendix C for details.

Data management and control

Inner Mongolia Xinjin Wind Power Co., Ltd. is responsible for operation and routine maintenance of power plant under the project activity. The quality assurance and quality control procedures have been addressed in the CDM project management and monitoring manual/5/, including the

organization structure with the responsibilities, personnel competencies, monitoring procedures and monitoring management. By interview with the staff/34/ and check records /7//8/ during on-site visit, it can be confirmed that the monitoring management system is implemented following the project management and monitoring manual.

All monitoring devices have been calibrated and maintained periodically to ensure the accuracy of measurement. Calibration records of instruments used in measurements were made available during the verification visit and found to be valid for the entire period of the verification. Competence and training records of in-plant personnel engaged in measurement of plant parameters were presented during verification and found to be in order.

As the above and document review, verification team considers that the project activity operated properly in the way complying with the implementation plan and monitoring plan stipulated in the approved CDM and the monitoring was performed in a transparent and comprehensive manner during this monitoring period.

By checking the UNFCCC website (<https://cdm.unfccc.int/Projects/DB/KFQ1265789122.23/view?cp=1>), it is confirmed emission reductions during the monitoring periods 04/07/2010-20/11/2012, 21/11/2012-20/01/2013 and 21/01/2013-20/12/2015 have been applied for CERs, and total 348,849 tCO₂e CERs were issued for the period 21/01/2013-20/12/2015. The emission reductions generated for the periods 04/07/2010-20/11/2012 and 21/11/2012-20/01/2013 are awaiting issuance under CDM scheme. As confirmed by PP, the issuance request for the emission reductions during the periods 04/07/2010-20/11/2012 and 21/11/2012-20/01/2013 will be submitted as required by the buyer's delivery schedule, and it will be only claimed under CDM program to avoid double counting/28/.

By checking the UNFCCC website (https://cdm.unfccc.int/Projects/DB/KFQ1265789122.23/iProcess/CCSC_DOE1458553400.29/view), it is confirmed no GHG emission reductions has been issued or requested for issuance under the CDM program during the current 2nd CDM crediting period. Therefore, it is concluded no double counting issuance has occurred for this verified monitoring period 21/12/2019-03/07/2020 under both VCS and CDM programmes. As confirmed by the project proponent, the emission reductions for this verified period are only requested for VCU's issuance.

The verification team has also checked other GHGs programs such as China Emission Trading System (CCER), Gold Standard, EU ETS, IREC, and based on the interview with the project proponent, it is confirmed that except CDM and VCS scheme:

- No evidence showing that the project has participated or been rejected under any other GHG programs since validation or previous verification;
- There is no observation that the project has received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification;
- The project is completely voluntary CDM project, not included in an emissions trading program or any other mechanism that includes GHG allowance trading.

Based on the on-site inspection, and through the interviews with local villagers and official from local environmental bureau, the verification team agrees on the following points regarding to the promotion of sustainability development by the project activity:

- Achieves GHG emission reductions contributing to the China's commitment to peak carbon dioxide emissions before 2030;
- Increases employment opportunities;
- Enhances the local investment environment and therefore improves the local economy
- Diversifies the sources of electricity generation, contributing to the China's actions for promoting the sustainable developing regarding increase the share of non-fossil fuels in primary energy consumption to about 20 percent by 2030;
- Makes greater use of renewable wind resources to achieve the national action for renewable energy development, contributing to the China's actions for promoting the sustainable developing regarding "By 2020, build preliminary standards and systems for green government procurement, which is environment-friendly, energy and water efficient, circular, low-carbon and renewable"

4.2. Safeguards

4.2.1. No Net Harm

By checking the EIA summary and conclusion provided in the approved CDM PDD, it is confirmed that wind power is green power and the impact caused by wind power on the surrounding ecosystem and residents, wastewater, noise, solid waste and atmosphere etc. is very little, there would be no net harm caused due to the project activity. Also, the EIA of the project are approved by the government.

Also, no potential environment or social economic matter was found during the site visit. The project is renewable energy project and thus no net harm observed in air or water quality on-site.

4.2.2. Local Stakeholder Consultation

As per the approved CDM PDD, the local stakeholder's consultation was done in May 2009 through distributing questionnaires, which was designed to be easily filled in. 34 copies of questionnaire were distributed, and all questionnaires received replies. The opinions expressed by the stakeholders were recorded and are available on request.

The survey showed that the proposed project receives strong support from the local community. They all believe the proposed project will promote local economic development and agree with the project development and construction.

All such conclusion has been verified through site visit and check approved CDM PDD.

For this monitoring period, the project proponent has placed the complaint book in local village committee by the project proponent to allow villagers to record their comments timely. The contact person periodically checked the complaint book. The phone number of contact person and information

of the project are also published on the bulletin board of village committee to facilitate the direct communication from local villager. Furthermore, the contact person had the consultation meetings yearly with local villagers on 05/06/2019 and 25/05/2020 during the monitoring period. All the comments received by the contact person through the above approaches were timely collected and reported to the plant director. Based on the site inspection, i.e. by checking the complaint book/11/, yearly meeting memos/13/ and interviewing with the local villagers, the contact person and plant director/34/, the verification team confirmed that on-going communication mechanism was well set up and carried out at periodic intervals by the project proponent during this monitoring period, and there are no negative comments received for the project.

4.3. AFOLU-Specific Safeguards

For non-AFOLU projects, this section is not required.

4.4. Accuracy of GHG Emission Reduction and Removal Calculations

CTI confirms that appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed, and the assumptions, emission factors and default values that are applied in the calculation have been justified.

According to the applied methodology, the emission reductions are determined as the difference between the baseline emissions (BE_y), project emissions (PE_y) and leakage (LE_y):

$$ER_y = BE_y - PE_y - LE_y$$

Baseline emissions

Baseline emissions are determined as multiplying quantity of net electricity generation supplied by the project to the grid in year y (EG_y) by the validated ex-ante fixed grid emission factor ($EF_{grid,CM,y}$).

$$BE_y = EG_y \times EF_{grid,CM,y}$$

Grid emission factor ($EF_{grid,CM,y}$)

$EF_{grid,CM,y}$ is the grid emission factor of the which has been verified ex-ante in the validation stage in the approved CDM PDD as 0.9502tCO₂e/MWh.

Quantity of net electricity generation supplied by the project to the grid in year y ($EG_{facility,y}$)

As mentioned in Section 4.1.3 above, EG_y is determined as follows:

$$EG_{facility,y} = EG_{export,y} - EG_{import,y}$$

Data in the monthly reading records were used to report. Through a cross check with the ETNs, the most conservative values have been applied to calculate the electricity exported to and imported from the grid by the project.

Table 1 Electricity supplied to and delivered from the grid by the project measured by Main Meter

Period	EG _{export,y} (MWh)			EG _{import,y} (MWh)		
	Measured by key meter M1	ETNs	Conservative values	Measured by key meter M1	ETNs	Conservative values
	A	B	C=MIN(A, B)	D	E	F=MAX(D, E)
21/12/2019~20/01/2020	8,325	8,325	8,325	11	11	11
21/01/2020~20/02/2020	15,324	15,324	15,324	12	12	12
21/02/2020~20/03/2020	11,580	11,580	11,580	5	5	5
21/03/2020~20/04/2020	7,731	7,731	7,731	8	8	8
21/04/2020~20/05/2020	12,021	12,021	12,021	5	5	5
21/05/2020~20/06/2020	11,521	11,521	11,521	4	4	4
21/06/2020~03/07/2020*	0	0	0	0	0	0
Total	-	-	66,503	-	-	45

*Note: During this monitoring period, the cut-off time of EG_{export} and EG_{import} is at 24:00 on the 20th day of each month. Data in the monthly reading records were used to report, and crosschecked by ETNs. Since there are no ETNs issued specifically for the periods 21/06/2020~03/07/2020 in purpose of cross check. The EG_{export} and EG_{import} for the period are considered 0. The verification team accepted this approach for ERs calculation since it is conservative and reasonable.

Hence, the conservative quantity of net electricity supplied by the project to the grid and the corresponding baseline emission during the monitoring period are calculated as:

Period	EG _{export,y} (MWh)	EG _{import,y} (MWh)	EG _{facility,y} (MWh)	EF _{grid,CM,y} (tCO _{2e} /MWh)	BE _y (tCO _{2e})
	G	H	I=G - H	J	K= J*I
21/12/2019~20/01/2020	8,325	11	8,314	0.9502	7,900
21/01/2020~20/02/2020	15,324	12	15,312		14,549
21/02/2020~20/03/2020	11,580	5	11,576		10,999
21/03/2020~20/04/2020	7,731	8	7,723		7,339
21/04/2020~20/05/2020	12,021	5	12,017		11,418
21/05/2020~20/06/2020	11,521	4	11,516		10,943
21/06/2020~03/07/2020	0	0	0		0
Total	66,503	45	66,458		63,148

Project emissions

As statement in ACM0002 (version 10)/33/, for the wind power activities, the project emissions from the project are not considered. Hence, PE_y during the monitoring period from 21/12/2019-03/07/2020 is considered as zero.

Leakages

Leakage does not need to be accounted for this project as per the applied methodology.

Emission reductions

The emission reductions for this monitoring period was calculated as:

Monitoring period	GHG emission reductions or removals (tCO ₂ e)
21/12/2019~20/01/2020	7,900
21/01/2020~20/02/2020	14,549
21/02/2020~20/03/2020	10,999
21/03/2020~20/04/2020	7,339
21/04/2020~20/05/2020	11,418
21/05/2020~20/06/2020	10,943
21/06/2020~03/07/2020	0
Total ERs claimed (in 196 days)	63,148

Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered CDM-PDD

The emission reductions claimed are 63,148tCO₂e in this monitoring period (i.e. 196days). Compared with yearly expected emission reductions 120,508 tCO₂e (365 days) in the approved CDM PDD (corresponding to 64,711tCO₂e for this monitoring period), the reported emission reductions in this monitoring period are 2.4% lower than the expected. If the estimated value calculated based on the 183 days (excluding 13 days for the periods 21/06/2020~03/07/2020), the reported emission reductions are 4.5% higher than the estimated value. Via the on-site inspection, it is confirmed the increase in electricity is due to the wind resource fluctuation during this monitoring period. Based on the approved CDM PDD (Version 4.0 dated 19/03/2013), only if the annual electricity increases by 16.65% during the project lifetime can the benchmark be reached. Considering the fluctuation of the wind resource, the verification team is able to confirm that the actual power supply and also emission reductions reported in this monitoring period are reasonable and appropriate. CTI verified the input data for calculating emission reductions and the calculating process, and confirmed the result were complete and transparent.

4.5. Quality of Evidence to Determine GHG Emission Reductions and Removals

All necessary documentations are collected, referenced and aggregated, which is easily accessible in hard-copy or electronic format. Measurements are performed by calibrated equipment, and the key data can also be cross-checked via other sources, such as records, receipts and inventory data. No assumptions are used that have any material influence on reported emission reductions.

CTI concludes that during this monitoring period, the evidences for determination of emission reductions are sufficient and reasonable, and the calculation of emission reductions is reliable.

4.6. Non-Permanence Risk Analysis

The project is not AFOLU project, and thus non-permanence risk analysis is not applicable for the project.

5. VERIFICATION CONCLUSION

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the verification of the emission reductions that have been reported for the project activity “Inner Mongolia Wujier Phase I Wind Power Project” in China (VCS Project ID: 1947) for the period 21/12/2019-03/07/2020.

The verification is based on the baseline and monitoring methodology ACM0002 (version 10), the approved CDM PDD (version 4.0 dated 19/03/2013), VCS PD (version 2.0 dated 26/07/2019), the approved CDM PDD for RCP (version 5.0 dated 22/09/2020), the VCS verification report (version 01.0 dated 02/01/2020) with corresponding monitoring report (version 2.0 dated 02/01/2020) for the previous monitoring period(21/12/2015 to 20/12/2019), and the monitoring report (version 3.0 dated 05/11/2021). The verification consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification and certification report.

The project proponents are responsible for the collection, calculation and determination of the GHG data in accordance with the monitoring plan and the reporting of GHG emission reductions on the basis set out within the project monitoring report.

Our verification approach was based on the requirements as defined under the applicable VCS Version 4 and relevant UNFCCC requirements. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification can confirm that:

- the project is implemented and operated as per the approved CDM PDD and VCS PD;
- the monitoring plan in approved CDM PDD is as per the applied methodology;
- the monitoring complies with the monitoring plan in the approved CDM PDD;

- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Version 4 and CDM requirements;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

It is CTI's responsibility to provide an independent verification statement on the reported GHG emission reductions for the project. Based on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these, CTI planned and performed our work to obtain the information and explanations that we considered necessary to provide reasonable assurance that reported GHG emission reductions are fairly stated.

CTI does not assume any responsibility towards the issuance and utilization of the VCUs hereby verified and certified. Request for issuance of VCUs shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration.

The verification of reported emission reductions is based on the information made available to CTI and the engagement conditions detailed in this report. CTI cannot be held liable by any party for decisions made or not made based on this report.

In CTI's opinion the GHG emissions reductions of the "Inner Mongolia Wujier Phase I Wind Power Project" for the period 21/12/2019-03/07/2020 are fairly stated in the monitoring report (version 3.0 dated 05/11/2021). The GHG emission reductions were calculated correctly on the basis of the approved methodology ACM0002 (version 10) and the monitoring plan contained in the approved CDM PDD (version 4.0 dated 19/03/2013) and the VCS PD (version 2.0 dated 26/07/2019).

CTI can confirm that the GHG emission reductions are calculated without material misstatements. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CTI confirms the following statement:

Reporting period: 21/12/2019-03/07/2020

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
21/12/2019~20/01/2020	7,900	0	0	7,900
21/01/2020~20/02/2020	14,549	0	0	14,549
21/02/2020~20/03/2020	10,999	0	0	10,999

21/03/2020~20/04/2020	7,339	0	0	7,339
21/04/2020~20/05/2020	11,418	0	0	11,418
21/05/2020~20/06/2020	10,943	0	0	10,943
21/06/2020~03/07/2020	0	0	0	0
Total	63,148	0	0	63,148

Shunrong Lin

Ms. Lin Shunrong

Technical Leader

16/11/2021

Wang Guolian

Ms. Wang Guolian

Team Reviewer

16/11/2021

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CCER	China Emission Trading System
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EF	Emission Factor
ER	Emission Reduction
EU ETS	EU Emissions Trading Scheme
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IREC	International Renewable Energy Certificates
MP	Monitoring Period
MR	Monitoring Report
NCPG	North China Power Grid
RCP	Renewal crediting period
PD	Project Description
PP	Project Proponent
SN	Serial Number
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCES

5.1.1. Documentation used to verify the information provided by the project proponents

/1/	China Carbon N.V: VER/VCU Monitoring Report for Inner Mongolia Wujier Phase I Wind Power Project, version 1.0 dated 30/06/2021, version 2.0 dated 08/08/2021 and version 3.0 dated 05/11/2021
/2/	China Carbon N.V: Emission reduction calculation spreadsheet for Inner Mongolia Wujier Phase I Wind Power Project, version 1.0 dated 30/06/2021 and version 2.0 dated 08/08/2021
/3/	Inner Mongolia Xinjin Wind Power Co., Ltd. and Inner Mongolia Grid Company.: Power Purchase Agreement for Inner Mongolia Wujier Phase I Wind Power Project
/4/	Inner Mongolia Xinjin Wind Power Co., Ltd. : Diagram of power connection system
/5/	Inner Mongolia Xinjin Wind Power Co., Ltd.: VER monitoring manual and management procedure
/6/	Inner Mongolia Xinjin Wind Power Co., Ltd.: Records of training for on-site staff
/7/	Inner Mongolia Xinjin Wind Power Co., Ltd.: Daily operation and maintenance records, from 21/12/2019-03/07/2020
/8/	Inner Mongolia Xinjin Wind Power Co., Ltd.: Daily and monthly reading records of Inner Mongolia Wujier Phase I Wind Power Project from 21/12/2019-03/07/2020
/9/	Inner Mongolia Grid Company.: Monthly Electricity Sales Receipts for 21/12/2019-03/07/2020
/10/	National Energy Administration: Statistics of grid-connected wind farms operation from 2012-2018
/11/	Local Village Complaint Book
/12/	Contact information of PP posted on the bulletin board of village committee
/13/	Yearly Meeting Memos of Local Stakeholder Consultation
/14/	EcoSecurities International Limited: the approved CDM PDD, version 4.0 dated 19/03/2013
/15/	Beijing Ruifang Technology Co., Ltd: GAP VCS PD version 2.0 dated 26/07/2019

/16/	Inner Mongolia Quality and Technology Supervision: Accreditation certificate of Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute, issued on 02/01/2018, valid up to 01/01/2022
/17/	Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute: Calibration certificates for meters M1 and M2 covering this monitoring period
/18/	State Economic and Trade Commission: Technical administrative code of electric energy metering (DL/T 448-2016)
/19/	Korean Foundation for Quality: CDM Validation Report, version 01.4, dated 09/02/2010
/20/	Bureau Veritas Certification: CDM Validation Report for post-registration change, version 01, dated 20/03/2013
/21/	Applus+ Certification: Validation report for renewal of crediting period for CDM project activities, version 01, dated 23/09/2020
/22/	Applus+ Certification: VCS Validation report for GAP validation, version 01.0, dated 26/07/2019
/23/	Applus+ Certification: VER/VCU Verification Report for Inner Mongolia Wujier Phase I Wind Power Project of previous monitoring period 21/12/2015-20/12/2019, version 01.0, dated 02/01/2020
/24/	Beijing Ruifang Technology Co., Ltd.: VER/VCU Monitoring Report for Inner Mongolia Wujier Phase I Wind Power Project of previous monitoring period 21/12/2015-20/12/2019, version 2.0, dated 02/01/2020
/25/	Inner Mongolia Xinjin Wind Power Co., Ltd.: CDM/CER Monitoring Report for Inner Mongolia Wujier Phase I Wind Power Project of previous monitoring periods 04/07/2010-20/11/2012, 21/11/2012-20/01/2013 and 21/01/2013-20/12/2015
/26/	China Classification Society Certification Company: CDM Verification Report for Inner Mongolia Wujier Phase I Wind Power Project of previous monitoring period 21/01/2013-20/12/2015, version 02, dated 07/07/2016
/27/	Xinjiang Goldwind Science&Technology Co.,Ltd.: Nameplate of the equipment
/28/	Inner Mongolia Xinjin Wind Power Co., Ltd.: No double counting statement, dated 15/11/2021

5.1.2. Methodologies, tools and other guidance

/29/	Verified Carbon Standard: VCS Standard, version 4.1
/30/	Verified Carbon Standard: VCS Program Guide, version 4.0

/31/	Verified Carbon Standard: VCS Sectoral Scopes http://v-c-s.org/node/448
/32/	Verified Carbon Standard: Registration and Issuance Process, version 4.0
/33/	UNFCCC EB: Approved methodology, ACM0002, version 10

5.1.3. Persons interviewed

/34/	Mr. He Jiawei, Plant Director of Inner Mongolia Xinjin Wind Power Co., Ltd.
	Mr. Song Qiang, Engineer of Inner Mongolia Xinjin Wind Power Co., Ltd.
	Mr. Li Yanlong, Contact person of Inner Mongolia Xinjin Wind Power Co., Ltd.
	Mr. Siqingba Teer, Local villager
	Mr. Wulan Gerile, Local villager
	Mr. Menke Batu, Local villager
	Ms. Li Yiyu, Project Manager, China Carbon N.V

APPENDIX C: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

5.1.4. Table 1: Corrective Action Requests

CAR ID	Corrective Action Request	Response by Project Proponent	Verification Team Assessment
NA	NA	NA	NA

5.1.5. Table 2: Clarification Requests

CL ID	Clarification Request	Response by Project Proponent	Verification Team Assessment
CL 01	The calibration information of all monitoring meters is missing in the MR, thus it is requested to clarify.	The information of all electricity meters on the calibration of monitoring instruments had been updated in the MR.	OK. It has been revised and verified by CTI. Therefore, CL 01 is closed.

5.1.6. Table 3: Forward Action Requests

FAR ID	Forward Action Request	Response by Project Proponent	Verification Team Assessment
NA	NA	NA	NA