



VERIFICATION REPORT FOR INNER MONGOLIA WUJIER PHASE I WIND POWER PROJECT



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Summary:

China Certification Center, Inc. (hereafter referred to as “CCCI”) has performed the verification of greenhouse gas emission reductions of the project activity “Inner Mongolia Wujier Phase I Wind Power Project” (VCS Ref. No. 1947, hereafter referred to as “the project”) reported in the monitoring report covering the monitoring period from 25/04/2021 to 31/12/2022

The Project is located in the Hangjin County, Ordos City, Inner Mongolia, People's Republic of China (P.R. China). The geographical coordinates of the Project are E 107 ° 21'39" Longitude and N 40 ° 11'40" Latitude. The project involves the installation of 33 sets of wind turbine with unit capacity of 1.5MW, and the total installed capacity of the Project is 49.5MW. The project reduces greenhouse gas (GHG) emission by replacing an equivalent amount of electricity that would otherwise have been purchased from the grid which is dominated by the fossil fuel power generation. The estimated emission reduction is 106,522tCO₂e annually. During this monitoring period (25/04/2021 to 31/12/2022), there has been no event or situation which may impact the applicability of the applied methodology.

The verification scope covers the relevant documents (e.g. the registered or renewed VCS-PD/CDM-PDD, the Monitoring Plan, the Monitoring Report, the emission reduction calculation spreadsheet, supporting documents available to the verifier and information collected through performing interviews and during the on-site assessment, VCS requirements and guidelines publicly available, relevant rules, including the host country legislation, etc.) to be independently reviewed, the project geographical locations to be visited on-site, the project local stakeholders to be interviewed with, and processes that are necessary to acquire objective evidence for the evaluation of the project compliance to the VCS verification requirements.

The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the Project.

The verification includes the following three phases: i) desk review of the project design, monitoring report and

additional background documents; ii) on-site inspection and follow-up interviews with the relevant personnel; iii) resolution of outstanding issues and the issuance of final verification report and opinion.

No Corrective Action Request (CAR) and one Clarification Request (CL) were raised in the verification process and successfully closed upon the project proponent taken actions and submitted the revised monitoring report and supporting evidence. No Forward Action Request (FAR) was raised during this verification.

In summary, CCCI confirms that the Project is implemented as described in validated and registered project design documents. Installed equipment being essential for generating emission reductions ran reliably and were calibrated appropriately. The monitoring system was in place and the Project was generating GHG emission reductions as a VCS project.

CCCI can confirm that the GHG emission reductions are calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the validated and registered project baseline, monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CCCI confirms the following statement:

Reporting period:	25/04/2021 to 31/12/2022	
Baseline emissions:	186,199	tCO ₂ e
Project emissions:	0	tCO ₂ e
Leakage emissions:	0	tCO ₂ e
Emission Reductions:	186,199	tCO ₂ e

Besides, the project does not have significant impacts on the environment or on the local society and economy. The project activity will not only supply renewable electricity to grid, but also contribute to sustainable development, including SDG7, 8, and 13.

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1 INTRODUCTION

1.1 Objective

China Certification Center, Inc. (hereafter referred to as “CCCI”) has performed the verification of greenhouse gas emission reductions of the project activity “Inner Mongolia Wujier Phase I Wind Power Project” (UNFCCC Ref. No. 3387, VCS Ref. No. 1947, hereafter referred to as “the project”) reported in the monitoring report covering the monitoring period from 25/04/2021 to 31/12/2022.

Verification is the periodic independent review and ex-post determination by an accredited verification body of the monitored reductions in GHG emissions during 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 25/04/2021 to 31/12/2022.

1.2 Scope and Criteria

Scope of the verification

- 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.

Criteria of the verification

- VCS Program Guide (version 4.3);
- VCS Standard (version 4.4) and other relevant requirements defined by Verra;
- The approved methodology ACM0002 version 20.0 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

As per the requirements in the VCS Standard Version 4.4, the level of assurance shall be reasonable, with respect to material errors, omissions and misrepresentations for verification. CCCI has undertaken a reasonable assurance level in accordance with VCS standard version 4.4. It requires a reasonable level of assurance in verification that GHG assertions are free of material errors, omissions and misrepresentations. The verification conclusion is based on the VCS-MR, CDM-PDD/VCS-PD, supporting evidences and information collected during the on-site inspection.

1.4 Summary Description of the Project

The Inner Mongolia Wujier Phase I Wind Power Project (UNFCCC Ref. No. 3387, VCS Ref. No. 1947) developed by Inner Mongolia Xinjin Wind Power Co., Ltd. (hereafter referred to as the project proponent) is a wind power project located in the Hangjin County, Ordos City, Inner Mongolia, People's Republic of China (P.R. China). The total installed capacity of the Project is 49.5MW consisting of 33 sets of wind turbine with unit capacity of 1.5MW. The project started construction on 29/05/2009, and the first wind turbine started operation on 16/09/2010, which is defined as the project start date. The electricity generated by the Project is supplied to North China Power Grid, which can be confirmed in the Power Purchase Agreement (PPA). The annual amount of emission reductions is expected to be 106,522 tCO₂e over the 2nd crediting period 04/07/2020 to 03/07/2030. The verification team confirmed there is no change from the project design to actual implementation have been identified during this verification. The operation of the project activity has been conducted in accordance with the description of the CDM-PDD.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification includes the following three phases: i) desk review of the project design, monitoring report and additional background documents; ii) on-site inspection and follow-up interviews with the relevant personnel; iii) resolution of outstanding issues and the issuance of final verification report and opinion.

The verification was conducted using CCCI internal procedures. CCCI verified the information contained in the documents reviewed against the requirements set in:

- VCS Program Guide (version 4.3);
- VCS Standard (version 4.4) and other relevant requirements defined by Verra;
- The approved methodology ACM0002 version 20.0 applied by the project.

The verification shall ensure that reported emission reductions are complete and accurate in

order to be verified. The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the Project.

The verification schedule consists of the following process:

Date	Schedule
02/03/2023	Document review
08/03/2023	Open meeting and Onsite inspection
08/03/2023	Follow-up interviews
08/03/2023	Draft verification report with verification findings
12/03/2023	Resolution of Findings and finish the verification report
14/03/2023-20/03/2023	Internal technical review
20/03/2023	Verification report finalization

2.2 Document Review

Verification was performed using CCCI's procedures in line with the requirements specified in the VCS Standard version 4.4, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant UNFCCC requirements and applying standard auditing techniques.

The verification team conducted a desk review of the monitoring report and supporting documents, to verify the completeness of the data and the information presented, to carry out the compliance check of the MR with respect to the monitoring plan and the applied methodology. Particular attention was given to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the QA/QC procedures. The 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 was also conducted. Furthermore, crosschecks were made between information provided in the CDM-PDD and information from sources other than those used.

In addition to the monitoring report provided by the project participants, the DOE reviews:

- The registered CDM-PDD and VCS-PD and the corresponding validation reports;
- The previous CDM/VCS monitoring reports and the corresponding verification reports;
- The applied monitoring methodology;
- Relevant decisions, clarifications and guidance from VERRA;
- Other information and references relevant to the project activity's resulting emission

reductions (e.g. IPCC reports, laboratory analysis or national regulations).

2.3 Interviews

The follow-up interview was conducted the physical site visit on 08/03/2023 by Ms. Hong Dandan (Team Leader) from CCCI, which is focused on the issues identified during the desk review. The main topics of the interviews cover implementation of the project construction, applicability of selected methodology, implementation of project monitoring, emission reduction calculation, etc., which are summarized in Table 1.

Table 1. Interview topics

Interviewed Persons	Role, organization	Interview Topics
Mr. Zong Shengli	General manager of the project owner	- Implementation status and operation of the project activity; - Implementation of the monitoring plan of the project activity; - Data collection and data achievement; - Calibration of meters and equipment maintenance; - The complaint by local stakeholders; - The stakeholder consultation during the operation of the project activity. - Project's sustainable development contributions. - Data collection and ER calculation.
Mr. Wang Panqiang	Operation staff of the plant	
Mr. Yang Xiaoqing	Operation staff of the plant	
Mr. Liu Zhiqiang	Operation staff of the plant	
Mr. Hou Fei	Operation staff of the plant	
Mr. Guo Dong	Operation staff of the plant	
Ms. Li Yiyu	GHG manager, China Carbon N.V.	- Applicability of selected methodology. - Baseline determination. - Emission reductions calculation.
Mr. Hasi Bateer Mr. Hulecha Bilige Mr. Siqin Bateer	Local stakeholders from Local village	- The impact of the project activity; - The complaint by local stakeholders; - The stakeholder consultation during the operation of the project activity; - Project's sustainable development contributions.

2.4 Site Visits

The assessment team performed the physical on-site verification on 08/03/2023. Site inspection was conducted as follows:

Duration of on-site inspection: 08/03/2023				
No.	Activity performed on-site	Site location	Date	Team member
1.	Open meeting and Management interview - Introduction - Implementation & Operation - Monitoring System - Information flow	project site	08/03/2023	Ms. Hong Dandan
2.	Site Observation - Inspection of installations (main equipments, main constructions, on-site monitoring equipments, etc.) - Observation of monitoring practice (reading records, operation log, etc.) - Interviews with relevant personnel (operation, training, etc.)	project site	08/03/2023	
3.	Site visit - Observation of monitoring practice (current meter code, DCS, Monthly Records Forms) - Interviews with relevant personnel (meter reading practice)	Project site	08/03/2023	
4.	Documents review - Implementation - Calibration - QA/QC procedures - Qualification & Training - Monitoring records - Cross-check data - ER calculations	Project site	08/03/2023	
5.	Close meeting - Summary of findings	Project site	08/03/2023	

	- Follow-up actions			
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2.5 Resolution of Findings

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

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

A Clarification Request (CL) shall be raised when the verification team has identified a need for further clarification.

A Forward Action Request (FAR) may also be raised during validation, to identify issues related to project implementation that require review during the first verification of the project activity.

No CAR, one CL were raised in the verification process and successfully closed upon the project proponent taken actions and submitted the revised monitoring report and supporting evidence. No Forward Action Request (FAR) was raised during this verification.

The issues raised, the response(s) provided by the project proponent, and the final conclusions and any resulting changes to project documents are summarized as follows:

Findings	PP's response and verification justification	Conclusion
CL1: Calibration dates of the meters shall be included in the monitoring report.	PP's response Calibration dates of the meters have been included in the section 4.2 of the revised monitoring report. Verification justification Calibration dates of the meters h included in the section 4.2 of the revised monitoring report have been checked and confirmed consistent with the evidence.	Closed

2.5.1 Forward Action Requests

No FAR was raised during the verification process. There are no remaining from former verification and validation.

2.6 Eligibility for Validation Activities

Not applicable as CCCI was accredited in Sectoral Scope 1 on validation and verification and thus is eligible for verification activities on the project. By checking the UNFCCC website, the VCS registry and the previous verification reports, it is confirmed the verification for this monitoring period 25/04/2021 to 31/12/2022 meets the requirement for VVB stipulated in VCS standard Version 4.4: A validation/verification body may not verify more than six consecutive years of a project's GHG emission reductions or removals.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project has also been registered as a CDM project with reference No. 3387 through reviewing the registered CDM-PDD and validation report at UNFCCC website (<https://cdm.unfccc.int/>). The project does not participate in the other emissions trading program except for CDM and VCS by checking public information on Internet and interviewing with project owner. Besides, the PP has issued the statement that the PP will not request the issuance of CERs under CDM and the VCUs will not be double counted. The project would claim for either CERs or VCUs, i.e. CERs and VCUs would not be claimed together in the same period confirmed by checking statement issued by project owner, which has been verified and confirmed by the verification team.

The national emission trading scheme (ETS) has been launched since 16/07/2021. However it only covers the high-emission and energy intensive industries that emit at least 26,000 tonnes of CO₂e/year as per the regulation including thermal power generation, petrochemical, chemical, building materials, iron and steel, etc. By reviewing China's policy including China national Emission Trading Scheme, the verification team can confirm that the project and the project proponent are not covered by the mandatory emission control scheme and there is no emission cap enforced for the project proponent.

Moreover, it is confirmed by the verification team that the project is not registered as a CCER project in China, and the emission reductions generated by the project activity are not eligible for transaction under China ETS.

Therefore, the CCCI verification team consider the project is eligible to participate under the VCS Program as there is no double counting for the emission reduction during any period. CCCI verification team can confirm that the PP has not applied for and will not apply for another form of GHG-related environmental credit, including renewable energy certificates, during this monitoring period.

3.2 Methodology Deviations

Not applicable as no deviation for methodology.

3.3 Project Description Deviations

Revision to the monitoring plan has been submitted to CDM-EB and approved on 27/08/2013 during the first CDM verification. This revision does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario since it relates to the change to the monitoring plan.

3.4 Grouped Project

Not applicable as this is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The verification team has performed an on-site inspection to assess:

- a) If all physical features (technology, project equipment, and monitoring and metering equipment) of the registered CDM-PDD/VCS-PD are in place.
- b) If the PP has operated the project activity as per the CDM-PDD/VCS-PD.

Project description

The Project is located in the Hangjin County, Ordos City, Inner Mongolia, People's Republic of China (P.R. China). As described in the monitoring report and the CDM-PDD/VCS-PD, the geographical coordinates of the Project are E 107° 21'39" Longitude and N 40° 11'40" Latitude. These have been verified through GPS instruments during the on-site visit. The geographical information of the Project has been correctly reported in the monitoring report.

The electricity generated by the Project is supplied to North China Power Grid, which can be confirmed in the PPA.

The project installs 33 sets of wind turbine with unit capacity of 1.5MW, and the total installed capacity of the Project is 49.5MW. Through checking the Technical Agreement of the Wind Turbines, the verification team can confirm the information of the actually installed equipments has been correctly reported in the monitoring report, which are consistent with the registered CDM-PDD/VCS-PD:

Table 2. Key technical data for the equipment of the Project

Wind turbines

Parameter	Value
Type	Jinfeng 82/1500
No. of vane	3
Rated power(kW)	1500
Rotor diameter(m)	82
Cut-in speed(m/s)	3
Cut-off speed(m/s)	22
Rated-speed(m/s)	10.3
Hub height(m)	70
Manufacturer	Xinjiang Goldwind Science & Technology Co., Ltd.

Therefore, the verification team confirmed there is no change from the project design to actual implementation have been identified during this verification. The operation of the project activity has been conducted in accordance with the description of the CDM-PDD/VCS-PD.

According to the Implementation log of the project /21/, the project started construction on 29/05/2009, and the first wind turbine started operation 16/09/2010.

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 and through on-site visit, the verification team can confirm that no serious malfunction happened and the plant was under a normal operation as expected in this monitoring period.

Monitoring plan

a) Power System

As shown in the diagram of the power connection system, the electricity generated by the Project is delivered to the onsite step-up substation, which connected to the transformer substation of the grid and then delivered to the North China Power Grid.

b) Metering System

Two bidirectional meters (key meter and check meter) with accuracy of 0.2S are installed at the high voltage side of the on-site transformer to measure the $EG_{PJ \text{ to grid},y}$ (Electricity exported to North China Power Grid by the project in year y) and the $EG_{grid \text{ to PJ},y}$ (Electricity imported from North China Power Grid by the project in year y). The check meter is installed in case the key

meter is malfunctioned. During this monitoring period, the key meter has operated normally.

- c) Information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report

Data collection of the electricity supply will follow the steps below:

The project owner and the grid company record readings of the key meter and reports to the grid company monthly; Each month, the grid company issues Sales receipts to the project owner upon the confirmed data. The electricity data is cross-checked with the Sales receipts issued by the grid company before transaction.

- d) Management and operational system

The project proponent has the responsibility of overall monitoring, which has established the monitoring structure for monitoring of power generation, maintenance and operation of the project. Responsibilities have been allocated to well-trained monitoring staff as per the monitoring plan. The QA/QC procedures are part of management system and are documented in management procedures.

All the records related to generation and maintenance have been satisfactorily maintained. The records and all relevant paper-based information are well archived by the project owner and available for verification.

The verification team can confirm that the implementation of the monitoring plan complies with the monitoring plan and the completeness of monitoring is ensured, through onsite interview, onsite inspection, and document review. There is not any material discrepancy between the actual monitoring system and the monitoring plan.

Other Forms of Credit and Supply Chain (Scope 3) Emissions

The project has not participated or been rejected under any other GHG programs, and it is confirmed by the verification team that the project is not registered as a CCER project in China, and the emission reductions generated by the project activity are not eligible for transaction under China ETS. The project has not received or sought any other form of environmental credit since previous verification, or has not become eligible to do so since previous verification. The GHG emission reductions or removals generated by the project have not become included in an emissions trading program or any other mechanism that includes GHG allowance trading except for VCS.

The verification team has checked the verification history and confirm that there was no double counting of the issued carbon credits, and there is no gap between the previous monitoring period and this monitoring period:

Table 3. Audit history of the Project

Period	Program	VVB Name
04/07/2010 to 20/11/2012	CDM	Bureau Veritas Certification
21/11/2012 to 20/01/2013	CDM	CCSC
21/01/2013 to 20/12/2015	CDM	CCSC
21/12/2015 to 20/12/2019	VCS	LGAI Technological Center, S.A. (Applus+)
21/12/2019 to 03/07/2020	VCS	CTI
04/07/2020 to 24/04/2021	VCS	CCSC
25/04/2021 to 31/12/2022 (this monitoring period)	VCS	CCCI

Besides, based on the PP's statement, the PP will not seek request of issuance of any other kind of GHG emission reductions including CERs under CDM. Refer to the section 3.1 of this report.

As per the Section 3.1 of this report, CCCI verification team can conclude that net GHG emission reductions generated during this monitoring period have not been used and will not be used for compliance under other programs or mechanisms.

The project produces and supplies electricity to the grid, and the project does not affect emissions associated with a good or service. Therefore supply chain emission is not applicable.

Sustainable development contributions

The project activity will not only supply renewable electricity to grid, but also contribute to sustainable development of the local community, which mainly include the following:

- The project utilizes zero-emission wind power to generate renewable electricity to the power and supply to grid during this monitoring period, which contributes to SDG 7.
- The project achieves full and productive employment and provides decent work positions for all women and men, which contributes to SDG 8.
- GHG emission reductions are generated by the project activity during this monitoring period. This contributes achieve one of China's stated sustainable development priorities "Actively adapt to climate change and strengthen resistance capacity to climate risks in agriculture, forestry, water resources and other key fields, as well as cities, coastal regions and ecologically vulnerable areas", which contributes to SDG 13.

The verification team has checked all the related evidence, and can confirm the contributions to the sustainable development of the project.

4.2 Safeguards

4.2.1 No Net Harm

By on-site inspection and checking the EIA summary and conclusion provided in the registered CDM-PDD, it is confirmed that the project does not have significant impacts on the environment or on the local society and economy. There is no transboundary impact involved with the project. There would be no net harm caused due to the project activity. Appropriate mitigation measures have been undertaken by the project proponent to avoid the potential impacts during the construction and operation. The EIA of the project are approved by the government.

After the completion of the construction, the project was put into operation after inspection and acceptance by the local environmental protection department. During the project operation, the project continues to contribute to the local society and economy.

The project is renewable energy project and thus no net harm observed on-site. In conclusion, the implementation of the project activity does not cause any significant negative environmental or socio-economic impacts and is beneficial to the local socio-economic environment.

4.2.2 Local Stakeholder Consultation

The local stakeholder's survey was carried out in 05/2009. The processes by which comments from local stakeholders have been invited and compiled, has been described within the CDM-PDD. Furthermore, representatives from the local community were interviewed, the relevant evidences were presented to CCCI for assessment. In general, the interviewees show adequate understanding of the nature of the Project and agreed that the Project would benefit the environment, society and economic development. The response is overall supportive.

For on-going communication with local stakeholders, through on-site inspection and interview during on-site visit, it is confirmed that the project owner has published the phone number and email of the contact person to local people and village committees. Anyone who has concerns can call the phone number or send email to express their opinions directly, or feedback on the bulletin board placed at the project site. Also, the contact person meets the local residents at least once a year to collect their comments and suggestions. Through onsite interviewing against the stakeholders during the site visit, the verification team can confirm that during this monitoring period, local authority has conducted spot checks on the implementation of the project periodically as per the request from the local governments' regulations, no negative comments nor grievance were received from the local stakeholders during this monitoring period were identified and the project passed all the periodic spot checks by local government.

4.3 AFOLU-Specific Safeguards

Not applicable as this is a non-AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The parameters required by the monitoring plan and how CCCI has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters including the values in the monitoring report are described below:

[Fixed ex-ante parameters]

Data and parameters fixed ex ante in the MR are checked against the registered CDM-PDD/VCS-PD by the verification team:

$EF_{grid,CM,y}$, combined margin grid emission factor, is 0.8269 tCO₂/MWh during the 2nd crediting period, which has been verified against the VCS-PD and confirmed as consistent.

[Monitoring parameters]

CCCI verification team has performed the following activities to determine whether the monitoring of parameters related to the GHG emission reductions has been implemented in accordance with the registered monitoring plan.

Through the on-site inspection of the monitoring system, interview with the operation staff, document review including relevant records, procedures and technical specifications, the verification team has assessed the implementation of the registered monitoring plan followed by the PP;

The parameters stated in the registered monitoring plan have been checked by means above;

The verification team has checked the installation of the electricity meter by on-site inspection against PPA, Diagram of power connection system of the Project and calibration reports by qualified third party;

The Meter Reading Records and Sales receipts were checked by the verification team to confirm the monitoring results;

Based on the interview with the top management and operation staff and the review of the VCS Monitoring Manual, the verification team has assessed the quality assurance and quality control procedures applied by the PP.

No sampling plan was involved in the project activity.

According to the registered monitoring plan, the parameters which need to be monitored include:

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

$EG_{\text{PJ to grid},y}$: Electricity exported to North China Power Grid by the project in year y

$EG_{\text{grid to PJ},y}$: Electricity imported from North China Power Grid by the project in year y

As described above, the meters have been installed in accordance with the monitoring plan for the above parameters. CCCI has on-site checked the location of the meters described in the monitoring report against the Diagram of power connection system of the Project and found them consistent.

Key meter has been properly configured and checked by both grid company and project owner. The project owner and the grid company record readings of the key meter and reports to the grid company monthly; Each month, the grid company issues Sales receipts to the project owner upon the confirmed data. The electricity data is cross-checked with the Sales receipts issued by the grid company before transaction. The key meter is continuously measured and monthly recorded used to calculate the Project's net electricity delivered to the grid.

The verification team has verified the values provided in the monitoring report and emission reductions calculation spreadsheet against the relevant documented evidences i.e. the Meter Reading Records and Sales receipts, and found them consistent with the provided evidences. Conservative data of electricity between Meter Reading Records and Sales receipts. Most conservative values, i.e. higher values of the imported electricity and lower values of the exported electricity, are used to calculate the emission reductions. During this monitoring period, the values between Meter Reading Records and Sales receipts are consistent with each other.

VCS Monitoring Manual and internal training records were provided and have been verified by the verification team. The monitoring organization has been set up and all monitoring staffs have been trained. CCCI confirms that all the documents required by the monitoring plan have been stored. CCCI has verified the documents and confirms that the PP managed and operated the project during the monitoring period in accordance with the registered or renewed CDM-PDD/VCS-PD.

[Calibration information]

Table 4. calibration information

Meter ID	Serial number	Accuracy	Calibration date	Valid to	Calibrator
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Key meter	96407521	0.2S	22/04/2021 16/02/2022	15/02/2023	Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute
Check meter	96281616	0.2S	22/04/2021 16/02/2022	15/02/2023	

The monitoring plan requires that the accuracy of the meters is 0.5%. Accuracy of the meters is not lower than required in the monitoring plan. The meters have been annually calibrated, which is in compliance with the monitoring plan.

[Calculation of baseline GHG emissions]

According to the registered CDM-PDD and the applied methodology, the baseline emissions are the baseline emission factor times the net electricity supplied to the grid. Therefore,

$$BE_y = EF_{grid,CM,y} * EG_{facility,y} = EF_{grid,CM,y} * (EG_{PJ \text{ to } grid,y} - EG_{grid \text{ to } PJ,y})$$

The net electricity supply ($EG_{facility,y}$) is calculated as:

Table 5. The verified $EG_{facility,y}$ and baseline emissions of the Project (MWh)

Year	$EG_{facility,y}$ (MWh)	$EF_{grid,CM,y}$ (tCO ₂ e/MWh)	BE_y (tCO ₂ e)
2021 (25/04/2021 to 31/12/2021)	100,909.661	0.8269	83,442
2022 (01/01/2022 to 31/12/2022)	124,268.306	0.8269	102,757
Total	225,177.967	0.8269	186,199

[Calculation of project GHG emissions]

As per the methodology, registered CDM-PDD, and updated VCS-PD of the 2nd crediting period, the project emission is 0. No parameters are to be monitored regarding the project emissions.

[Calculation of leakage]

No parameters related to leakage need to be considered according to the methodology, the registered CDM-PDD, and updated VCS-PD of the 2nd crediting period. No parameters are to be monitored regarding the leakage emissions.

[Calculation of emission reductions]

As per the methodology, registered CDM-PDD, and updated VCS-PD of the 2nd crediting period, the emission reductions are calculated as $ER_y = BE_y - PE_y$:

Table 6. emission reductions calculation results (tCO₂e)

Year	BE _y	PE _y	ER _y
2021 (25/04/2021 to 31/12/2021)	83,442	0	83,442
2022 (01/01/2022 to 31/12/2022)	102,757	0	102,757
Total	186,199	0	186,199

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The assessment of each parameter related to calculate the GHG emission reductions is justified in Sections 4.1 and 4.4 above. Via the on-site inspection and desk review, the verification team verified the supporting evidence provided by the project proponent as listed in Appendix 3 used to determine the GHG emission reductions.

For each reported data, the evidence is provided and verified as sufficient and quality is appropriate. Also, the cross-checks have been performed on the reported data with different source of evidence. The information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report has been assessed by CCCI in Section 4.4. Moreover, the calibration is verified as stated in Section 4.1 via on-site inspection with evidences to confirm the meters' location, accuracy and calibration frequency are in line with requirement of the monitoring plan.

Therefore, it is concluded that the evidence provided are verified as sufficient and quality is appropriate and thus the evidence can be used to determine the GHG emission reductions and removals for this monitoring period.

4.6 Non-Permanence Risk Analysis

Not applicable as a renewable project.

5 VERIFICATION OPINION

China Certification Center, Inc. (hereafter referred to as "CCCI") has been commissioned by China Carbon N.V. to perform the verification of greenhouse gas emission reductions of the project activity "Inner Mongolia Wujier Phase I Wind Power Project" (UNFCCC Ref. No. 3387, VCS Ref. No. 1947) reported in the monitoring report covering the monitoring period from 25/04/2021 to 31/12/2022.

The verification includes the following three phases:

- desk review of the project design, monitoring report and additional background documents;
- on-site inspection and follow-up interviews with the relevant personnel;
- resolution of outstanding issues and the issuance of final verification report and opinion.

In summary, CCCI confirms that the Project is implemented as described in validated and registered project descriptions and monitoring plan. Installed equipment being essential for generating emission reductions ran reliably and were calibrated appropriately. The monitoring system was in place and the Project was generating GHG emission reductions. The GHG emission reduction is calculated without material misstatements. The verification team can confirm that:

- the project is implemented and operated as per the registered VCS PD;
- the monitoring plan is as per the applied methodology;
- the monitoring complies with the monitoring plan;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Standard Version 4.4 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;
- the project deviation is appropriately described and justified; the deviation was verified by the verification team as valid, and the project remains in compliance with the VCS rules.

Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the validated and registered project baseline, monitoring plan and its associated documents. Based on the information we have seen and evaluated, we confirm the following statement:

Verification period: from 25/04/2021 to 31/12/2022

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

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)
2021 (25/04/2021 to 31/12/2021)	83,442	0.00	0.00	83,442
2022 (01/01/2022 to 31/12/2022)	102,757	0.00	0.00	102,757

Total	186,199	0.00	0.00	186,199
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The difference between the estimated ex-ante GHG emission reductions and the achieved emission reductions for this monitoring period is justified reasonably as follows.

Year	Ex-ante emissions reduction s/removal s (tCO ₂ e)	Achieved emissions reduction s/removal s (tCO ₂ e)	Percent difference	Justification for the difference
2021 (25/04/2021 to 31/12/2021)	73,252	83,442	+13.91%	Verification team has checked the data of wind power resources, and can confirm that the difference is reasonable. The wind power resources during this period increased compared to the historical annual average wind power data used in the ex-ante estimation of electricity generation.
2022 (01/01/2022 to 31/12/2022)	106,522	102,757	-3.53%	This difference is reasonable since It is normal fluctuation around the estimation.
Total	179,774	186,199	+3.57%	This would not impact the additionality of the project. According to the registered CDM PDD, the IRR is still below the benchmark of 8% when the net exported electricity increases 3.57%.

APPENDIX A: ABBREVIATIONS

Abbreviations	Full texts
AFOLU	Agriculture, Forestry and Other Land Use
BE	Baseline emissions
BM	Build Margin
CAR	Corrective Action Request
CCCI	China Certification Center, Inc.
CCER	China Certified Emission Rrdutions

CDM	Clean Development Mechanism
CER	Certified Emission Reduction (CDM)
CL	Clarification Request
CM	Combined Margin
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
DNA	Designated National Authority
CDM-EB	CDM Executive Board
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission reductions
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG(s)	Greenhouse gas(es)
GS	Golden Standard
IPCC	Intergovernmental Panel on Climate Change
MEE	Ministry of Ecology and Environment of the People's Republic of China
MP	Monitoring Plan
MW/MWh/GW/GWh	Megawatt / Megawatt hour / Gigawatt / Gigawatt hour
OM	Operating Margin
PD	Project Description
PDD	Project Design Document
PE	Project emissions
PO	Project owner
PP	Project Proponent

PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Voluntary Carbon Unit
VVB	Validation / Verification Body
VVS	Verification and Validation Standard (CDM)

APPENDIX B: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Ms. Hong Dandan	Team Leader	Ms. Hong Dandan has 9 years work experience in CDM projects since 2009. She received comprehensive training of CDM and has participated in more than 45 CDM projects including wind power, hydro power, CMM, waste heat recovery and CDQ. Her background includes both project validation and verification. Before joining CCCI, Hong Dandan worked with the CDM development company EEA and WWF.
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Ms. Li Yiting	Technical Reviewer	Ms. Li Yiting is an environmental engineer with extensive practical experience in the carbon market. She has worked in carbon markets since 2006 and gained extensive experience in the development and implementation of CDM projects, working in the area of project-based mechanisms. Her background includes both project validation and verification, in different sectoral scopes, including renewable energy, waste heat and gas recovery from iron and steel plants or cement plants, landfill gas combustion and utilization projects, coal mine methane, natural gas. She has developed and managed the validation/verification of number of CDM project activities, including experiences in CDM Project Design Document (PDD) development, the monitoring system building, data QA/QC, emission reduction calculation review and documentation review, where she has obtained a good understanding of technical aspects in these sectoral scopes as well as their specific CDM aspects.
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APPENDIX C: DOCUMENTS REVIEWED OR REFERENCED

- /1/ Monitoring report, Version 01 dated 12/02/2023, Version 02 dated 12/03/2023
- /2/ ER calculation spreadsheet
- /3/ Registered CDM-PDD, version 4.0, dated 19/03/2013
- /4/ CDM Validation report, Version 01.4, dated 09/02/2010
- /5/ Approved VCS PD related to the 2nd crediting period 04/07/2020 to 03/07/2030 covering this monitoring period, version 03, dated 08/04/2022
- /6/ VCS validation report of the crediting period renewal Version 2.0, dated 23/09/2021
- /7/ Previous VCS verification reports
- /8/ VCS Standard version 4.4
- /9/ No Double Counting Statement, issued by the Project Owner on 09/03/2023
- /10/ Methodology ACM0002 version 20.0 Grid-connected electricity generation from renewable sources
- /11/ VCS Monitoring Manual
- /12/ Internal training records
- /13/ Technical Agreement of the Wind Turbines
- /14/ Diagram of the power connection system
- /15/ Meter Reading Records
- /16/ Sales receipts
- /17/ Signed Power Purchase Agreement (PPA) with grid company
- /18/ Calibration certificates of meters covering the whole monitoring period issued by Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute
- /19/ Accreditation Certificate of Metrological Authorization to Electric energy Measuring and Testing centre of Inner Mongolia Electric Power Science Research Institute, issued by China National Accreditation Service for Conformity Assessment
- /20/ Huanbanqihou[2021]No.9,
http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202103/t20210330_826728.html

/21/ Implementation log of the project