VCS VERIFICATION REPORT

SHANDONG WENDENG ZHANGJIACHAN WIND FARM PROJECT

(VCS PROJECT ID: 1188)

Document Prepared By

Shenzhen CTI International Certification Co., Ltd

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Summary:

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the verification of the emission reductions reported for the project activity "Shandong Wendeng Zhangjiachan Wind Farm Project" (VCS Project ID:1188) for the monitoring period 01/01/2016-25/02/2021 within the 1st VCS crediting period 26/02/2011-25/02/2021, 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, one CAR, and no FAR in this monitoring period.

In CTI's opinion, the GHG emission reductions reported for the project in the monitoring report (version 02 dated 20/04/2021) are fairly stated. The GHG emission reductions of the period from 01/01/2016-25/02/2021 within the 1st VCS crediting period were calculated correctly on the basis of approved methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (version 12.2.0) and the monitoring plan contained in the registered PDD (version 2

dated 20/12/2011).

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 "Shandong Wendeng Zhangjiachan Wind Farm Project" during the period amount to 403,631 tCO2e.

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1 INTRODUCTION

CGN Carbon Asset Management (Beijing) Co., Ltd has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the verification and certification of emission reductions reported for the "Shandong Wendeng Zhangjiachan Wind Farm Project" (the project) for the monitoring period 01/01/2016-25/02/2021. 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 "Shandong Wendeng Zhangjiachan Wind Farm Project" for the period 01/01/2016-25/02/2021.

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)/28/
- VCS Standard (version 4.0)/27/ and other relevant requirements defined by Verra;
- The approved methodology ACM0002 (version 12.2.0)/31/ 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)/28/, 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 Wendeng City, Shandong Province, P. R. China, with east longitude 122.051944E-122.155278E and north latitude 37.093611N-37.181667N. The project activity was registered as a CDM project with Ref.5655 on 17/01/2012 and the 1st CDM crediting period is from 01/03/2012 - 28/02/2019, which has been renewed on 27/04/2019 with the 2nd CDM crediting period from 01/03/2019-28/02/2026. The project has been registered as VCS project with Ref. VCS 1188 under VCS Standard Version 3.4. As per the VCS standard, the project starting date is 26/02/2011 when the first turbine put into operation and began generating GHG emission reductions. The amount of 63,369tCO_2e VCUs have been issued for the monitoring period 26/02/2011-29/02/2012.

The installed capacity of the project is 49.3MW equipped with 58 sets of 850kW wind turbine-generators in type of G58-850kW manufactured by Gamesa Wind(Tianjing) Co., Ltd.. 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 84,709tonnes CO_2 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 registered CDM PDD (version 2 dated 20/12/2011) and the GAP VCS PD (version 01 dated 20/11/2013), the applied methodology, and the VCS Standard (version 4.0) 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 01 dated 20/11/2013) /14/, emission reduction calculation spreadsheet/2/, the following documents also were assessed as a part of the verification audit:

- The registered CDM PDD (version 2 dated 20/12/2011) for the project activity/13/, including the monitoring plan and the corresponding CDM validation report/18/;
- Baseline and monitoring methodology ACM0002 (version 12.2.0) applied by the project/31/;
    - Relevant decisions, clarifications and guidance from the Verra/27/-/31/; 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 08/04/2021, CTI visited the project proponent Wendeng Zhangjiachan Wind Power Co., Ltd. to perform on-site assessment. The key personnel of the project were interviewed or assisted the verification team /32/. 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/32/ are summarized in the table below:

Interviewed personnel	Position	Subject
Mr. Yu Wentao	Plant Director of Wendeng Zhangjiachan 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. Li Gongde	Engineer of Wendeng Zhangjiachan Wind Power Co., Ltd.	
Mr. Han Zhuan	Contact person of Wendeng Zhangjiachan Wind Power Co., Ltd.	
Mr. Zhang Xiaoguang	Local villager	
Ms. Han Li	Local villager	
Mr. Liu Xingjun	Official of Local Environment Protection Bureau	
Ms. Ji Huiying	Project Manager of CGN Carbon Asset Management (Beijing) Co., Ltd	

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 registered 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 registered PDD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and Electricity Sales Transaction Notes(ETNs);
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the registered 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 Wendeng Zhangjiachan Wind Power Co., Ltd. and project consultant CGN Carbon Asset Management (Beijing) Co., Ltd, 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 12.2.0), 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 and one CAR in this monitoring period, and no FAR 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/20/, and no FAR was raised during this verification.

2.6. Eligibility for Validation Activities

The project has been validated under the CDM rules and registered as CDM project. CTI has undertaken validation activities as part of the verification for the project according to the VCS Program

Guide. CTI was accredited in Sectoral Scope 1 on validation and verification and thus is eligible for validation activities on the proposed project.

3. VALIDATION FINDINGS

The project activity is registered as CDM project activity under the UNFCCC on 17/01/2012 with the Registration Ref. No. 5655.The CDM crediting period of the project starts on 01/03/2012 with a renewable crediting period of 3*7 years. The emission reductions from 26/02/2011-29/02/2012 prior to the CDM crediting period were claimed as Voluntary Carbon Units (VCU) under the Voluntary Carbon Standard (VCS 3.4).

By checking the registered CDM PDD and site visit interview with project owner, it is confirmed that the project started operation on 26/02/2011 which is the project start date according to the requirement of VCS. A deviation was identified for the crediting period of the Project. The project is registered under VCS Version 3.4 and completed validation before 19/03/2020. As per VCS requirement, it remains eligible to apply the crediting period requirements under VCS Version 3 which shall be a maximum of ten years and may be renewed at most twice. Therefore, the first renewable crediting period of the Project is updated from 26/02/2011-29/02/2012 to 26/02/2011-25/02/2021, which lasts for 10 years.

3.1. Participation under Other GHG Programs

The project has been registered as a CDM project on 17/01/2012 under the UNFCCC with Ref. 5655 The 1st CDM crediting period is from 01/03/2012 - 28/02/2019 and the 2nd CDM crediting period is renewed from 01/03/2019-28/02/2026. By checking the UNFCCC website (https://cdm.unfccc.int/Projects/DB/SGS-UKL1325865228.09/view?cp=1 and https://cdm.unfccc.int/Projects/DB/SGS-UKL1325865228.09/view?cp=2), it is confirmed that no GHG emission reductions has been issued or requested for issuance under the CDM program during the 1st CDM crediting period and 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/18/ has assessed all factors and issues that constitute the basis for emission reductions from the project according to the applicable CDM methodology ACM0002 (version 12.2.0) /31/. 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 registered CDM PDD. CTI confirms that the project is fully implemented in accordance with the project description contained in registered CDM PDD (version 2 dated 20/12/2011), 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 "Shandong Wendeng Zhangjiachan Wind Farm Project" for the monitoring period 01/01/2016-25/02/2021.

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 Wendeng City, Shandong Province, P. R. China. The geographical coordinates are verified by GPS system as east longitude 122.051944E-122.155278E and north latitude 37.093611N-37.181667N. The total installed capacity is 49.3MW equipped with 58 sets of 850kW wind turbine-generators in type of G58-850kW. The first turbine started operation on 26/02/2011 and the project has put into full operation since 11/08/2011. 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 registered 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 Wendeng Zhangjiachan Wind Power Co., Ltd. and Linyi Electric Power Company/3/. All the monitoring system in operation period is consistent with the description in the registered 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/32/ and observing the operation.

CTI confirms that the project implementation is in accordance with the project description contained in registered 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 registered CDM PDD.

4.1.2. Compliance of monitoring plan with monitoring methodology

CTI is able to confirm that the monitoring plan in the registered CDM PDD (version 2 dated 20/12/2011) is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 12.2.0).

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 registered CDM PDD (version 2 dated 20/12/2011). 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 12.2.0) 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 in further verified in the following sections.

Parameters fixed ex ante

"Data and parameters fixed ex ante" in the MR are checked against the registered 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 registered 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 registered 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:

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

(2) $EG_{output,y}$, Electricity supplied to the grid by the Project in year y

(3) $EG_{import,y}$, Electricity delivered from the grid by the project in year y

(4) $EG_{im\text{-}spare,y}$ Electricity purchased from the gird through a 10 kV spare line in the year y

Based on the on-site visit and checking the connection diagram, PPA and meters, it is confirmed that the main meter M1 is installed at the Xijiiao 110kV substation of the grid company to monitor the electricity supplied to ($EG_{output,y}$) and delivered from ($EG_{import,y}$) the grid company. Meter M2, as the backup for M1, is installed at the 110kV substation on the project site. Meter M3 is installed at the 10kV spare line to monitor the electricity imported through the 10 kV spare line ($EG_{im\text{-}spare,y}$). All meters are bidirectional. Therefore, $EG_{facility,y}$ is calculated as: $EG_{facility,y} = EG_{ouput,y} - EG_{import,y} - EG_{im\text{-}spare,y\ d}$.

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 registered CDM PDD. All the monitoring facilities and system have been verified by CTI during on-site visit.

The meter readings of $EG_{ouput,y}$ and $EG_{import,y}$ are continuously measured and recorded by trained staff of the project as agreed with the local grid company at 24:00 on the last day of each month/8/. The readings of $EG_{im\text{-}spare,y}$ are measured and recorded by the local grid company at 24:00 on the last day of each month/8/.The electricity transaction notes (ETNs)/9/ issued by the local grid company have been used for cross-check of electricity exports and imports.

Through a cross check, the conservative values from electricity export and import 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 registered CDM PDD and the methodology

ACM0002 (version 12.2.0) 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 (Old meter)	Main meter M1 (New meter)	M2 （Backup for M1）	M3 (10kV spare line)
SN	370110001005067	3730001000000171096437	1007036777000001	WY4D98135
Accuracy class	0.5s	0.2s	0.2s	2.0
Calibration frequency	Annually	Annually	Annually	Annually
Calibration Date	27/02/2015 27/02/2016	26/09/2016 27/02/2017 27/02/2018 27/02/2019 27/02/2020	27/02/2015 27/02/2016 27/02/2017 27/02/2018 27/02/2019 27/02/2020	27/02/2015 27/02/2016 27/02/2017 27/02/2018 27/02/2019 27/02/2020
Validity	26/02/2016 26/02/2017	26/09/2017 26/02/2018 26/02/2019 26/02/2020 26/02/2021	26/02/2016 26/02/2017 26/02/2018 26/02/2019 26/02/2020 26/02/2021	26/02/2016 26/02/2017 26/02/2018 26/02/2019 26/02/2020 26/02/2021
Calibration entity	Electricity Metering Center of Linyi Electric Power Co., Ltd.			

Calibration records and accreditation certificates/15//16/ have been verified by the verification team. During the on-site visit, it is confirmed that the main meter M1 with SN. 370110001005067 was replaced by a new meter with SN. 3730001000000171096437 on 20/10/2016. The actual accuracy of meters M1, M2 and M3 is verified to comply with the requirement in the registered CDM PDD and in compliance with the Technical administrative code of electric energy metering (DL/T448-2016)/17/. The calibration frequency of meters is annual, which is consistent with the registered 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:

- All 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.

CAR 01 was raised for requesting to correct the accuracy of meter M3 with SN. WY4D98135, which has been successfully closed, Refer to Appendix 3 for details.

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 3 for details.

Data management and control

Wendeng Zhangjiachan 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/32/ 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 registered CDM PDD (version 2 dated 20/12/2011) and the monitoring was performed in a transparent and comprehensive manner during this monitoring period.

The project has been registered as a CDM project on 17/01/2012 under the UNFCCC with Ref. 5655 The 1st CDM crediting period is from 01/03/2012 - 28/02/2019 and the 2nd CDM crediting period is renewed from 01/03/2019-28/02/2026. By checking the UNFCCC website (https://cdm.unfccc.int/Projects/DB/SGS-UKL1325865228.09/view?cp=1 and https://cdm.unfccc.int/Projects/DB/SGS-UKL1325865228.09/view?cp=2), it is confirmed that no GHG emission reductions has been issued or requested for issuance under the CDM program during the 1st CDM crediting period and the current 2nd CDM crediting period. The amount of 63,369tCO_2e VCUs have been issued for the monitoring period from 26/02/2011-29/02/2012.

The verification team has also checked other GHGs programs such as China Emission Trading System (CCER), 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.
- In respect of the China emissions trading scheme initiated in 2021, it is confirmed by the verification team that the project is not included within China's emissions trading scheme with the following clarification:

  (1) The China Carbon Emission Trade Exchange (CCETE) was commenced in July 2021, established based on the "*Interim Measures for the Management of Carbon Emission Rights Trading*" (Decree no. 19, the Ministry of Ecology and Environment of China, 31/12/2020) /22/. By reviewing the *Measures*, the verification team confirms CCETE is the voluntary market to allow and encourage the enterprises with intensive carbon emissions to trade the remaining carbon emission allowances created through technical innovation in order to completely achieve carbon emission obligations. Moreover, according to the *Measures*, these enterprises can purchase CCERs (Chinese Certified Emission Reductions) issued under the China Emission Trading System as offsets for the allowances, but which shall not exceed 5% of their allowances. Therefore, except trading the carbon emission allowances and a certain amount of CCERs, no other types of projects or GHG credits under an emissions trading system i.e. CDM, VCS and GS and or as other forms of environmental credit such as renewable energy certificates are permitted for involving in CCETE. Also as a voluntary mechanism, there is no mandatory requirement for the carbon emission reductions generated from the domestic renewable resources to be traded in the system. In addition, via checking the licence /26/ of the project proponent Wendeng Zhangjiachan Wind Power Co., Ltd. and interview though the on-site inspection, it is confirmed the business scope of the project proponent is to develop and implement wind farms, it is not belong to the intensive carbon emission enterprises with carbon emission allowances to be involved in CCETE.

  (2) China Emission Trading System is also an voluntary mechanism initiated in 2012. It is confirmed by the verification team via checking the "*Interim Measures for the Administration of Voluntary Greenhouse Gas Emission Reduction Trading*" (Climate Change [2012] No. 1668, National Development and Reform Commission, 13/06/2012) /23/, firstly the projects shall be be registered under China Emission Trading System, and then can request for CCERs issuance. However, this trading mechanism has been suspended since 2017 as per the "*Announcement of the National Development and Reform Commission*" (Code 2 in 2017, National Development and Reform Commission, 03/14/2017) /24/. As confirmed by the verification team through checking the platform of China Emission Trading System, the project activity VCS 1188 is not a registered CCER project. Thus, the project cannot be included in the China's emissions trading scheme i.e. CCETE.

  (3) Furthermore, a declaration has been provided by the project proponent on 25/10/2021 /25/ that the emission reductions during the monitoring period 01/01/2016-25/02/2021 will be requested for VCUs under VS program and will not be claimed under other GHG programs or mechanism.

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:

- Achieve obvious GHG emission reductions by avoiding CO_2 emissions, as grid-connected fossil fuel-fired power dominates in the NCPG;
- Replace grid-connected fossil fuel-fired power plants in the NCPG, and thus reduce fossil fuel consumption and avoid pollutants emission, such as sulfur dioxide and dust brought by fossil fuel combustion, thus bring obvious environmental benefits.
- Offer job opportunities for local people during both the construction and operational period.

Achieve economic growth and booming of local tourism through the construction and operation of the project, and contribute to local government with more tax revenues.

4.2. Safeguards

4.2.1. 4.2.1 No Net Harm

By checking the EIA summary and conclusion provided in the registered 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. 4.2.2 Local Stakeholder Consultation

As per the registered CDM PDD, the local stakeholder's consultation was done in Nov.2009 through distributing questionnaires, which was designed to be easily filled in. 50 copies of questionnaire were distributed, and 48 out of 50 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 registered 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 quarterly 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 in Aug 2016, Sep 2017, Aug 2018, Sep 2019 and Sep 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/10/, yearly meeting memos/12/ and interviewing with the local villagers, the contact person and plant director/32/, 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.

Moreover, the local environment bureau has conducted periodic spot-check and follow-up interviews with local villagers for their comments regarding to project implementation. Based on the interview with official from local environment bureau, the verification team confirmed that there were no negative comments and issues raised from the local stakeholders during this monitoring period and the project passed all the periodic spot checks by local government.

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, project emissions and leakage:

$ER_y = BE_y - PE_y$

Baseline emissions

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

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

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 registered CDM PDD as 0.9309tCO_2e/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,$EG_{facility,y}$ is determined as follows:

$$EG_{facility,y} = EG_{output,y} - EG_{import,y} - EG_{im\text{-}spare,y}$$

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 meter M1 (MWh)

Period	$EG_{output,y}$			$EG_{import,y}$		
	Measured by M1	ETNs	Conservative values	Measured by M1	ETNs	Conservative values
	A	B	C=MIN(A, B)	D	E	F=MAX(D, E)
01/01/2016-31/01/2016	9573.30	9573.30	**9573.30**	29.15	29.15	**29.15**
01/02/2016-29/02/2016	5552.25	5552.25	**5552.25**	35.75	35.75	**35.75**
01/03/2016-31/03/2016	11549.45	11549.45	**11549.45**	30.25	30.25	**30.25**
01/04/2016-30/04/2016	9031.55	9031.55	**9031.55**	27.50	27.50	**27.50**
01/05/2016-31/05/2016	7378.25	7378.25	**7378.25**	30.25	30.25	**30.25**
01/06/2016-30/06/2016	6289.80	6289.80	**6289.80**	37.40	37.40	**37.40**
01/07/2016-31/07/2016	4574.35	4574.35	**4574.35**	44.55	44.55	**44.55**
01/08/2016-31/08/2016	5024.80	5024.80	**5024.80**	60.50	60.50	**60.50**
01/09/2016-30/09/2016	3969.90	3969.90	**3969.90**	59.95	59.95	**59.95**
01/10/2016-31/10/2016	5572.60	5572.60	**5572.60**	38.50	38.50	**38.50**
01/11/2016-30/11/2016	10023.20	10023.20	**10023.20**	19.25	19.25	**19.25**
01/12/2016-31/12/2016	9438.55	9438.55	**9438.55**	16.50	16.50	**16.50**
Subtotal 2016			**87978.00**			**429.55**
01/01/2017-31/01/2017	4087.60	4087.60	**4087.60**	25.85	25.85	**25.85**
01/02/2017-28/02/2017	13398.00	13398.00	**13398.00**	35.20	35.20	**35.20**
01/03/2017-31/03/2017	8995.25	8995.25	**8995.25**	21.45	21.45	**21.45**
01/04/2017-30/04/2017	8756.55	8756.55	**8756.55**	34.65	34.65	**34.65**
01/05/2017-31/05/2017	8299.50	8299.50	**8299.50**	8.80	8.80	**8.80**
01/06/2017-30/06/2017	6019.75	6019.75	**6019.75**	13.75	13.75	**13.75**
01/07/2017-31/07/2017	4553.45	4553.45	**4553.45**	35.75	35.75	**35.75**
01/08/2017-31/08/2017	5140.85	5140.85	**5140.85**	52.25	52.25	**52.25**
01/09/2017-30/09/2017	2800.60	2800.60	**2800.60**	39.05	39.05	**39.05**
01/10/2017-31/10/2017	6644.00	6644.00	**6644.00**	29.15	29.15	**29.15**
01/11/2017-30/11/2017	9860.95	9860.95	**9860.95**	31.35	31.35	**31.35**

Period	$EG_{output,y}$			$EG_{import,y}$		
	Measured by M1	ETNs	Conservative values	Measured by M1	ETNs	Conservative values
	A	B	C=MIN(A, B)	D	E	F=MAX(D, E)
01/12/2017-31/12/2017	7385.40	7385.40	**7385.40**	19.80	19.80	**19.80**
Subtotal 2017			**85941.90**			**347.05**
01/01/2018-31/01/2018	7398.05	7398.05	**7398.05**	29.15	29.15	**29.15**
01/02/2018-28/02/2018	6990.50	6990.50	**6990.50**	29.15	29.15	**29.15**
01/03/2018-31/03/2018	11287.65	11287.65	**11287.65**	22.00	22.00	**22.00**
01/04/2018-30/04/2018	11052.80	11052.80	**11052.80**	12.10	12.10	**12.10**
01/05/2018-31/05/2018	8794.50	8794.50	**8794.50**	10.45	10.45	**10.45**
01/06/2018-30/06/2018	5780.50	5780.50	**5780.50**	30.25	30.25	**30.25**
01/07/2018-31/07/2018	8299.50	8299.50	**8299.50**	23.10	23.10	**23.10**
01/08/2018-31/08/2018	5913.60	5913.60	**5913.60**	29.15	29.15	**29.15**
01/09/2018-30/09/2018	2313.85	2313.85	**2313.85**	30.25	30.25	**30.25**
01/10/2018-31/10/2018	5478.00	5478.00	**5478.00**	39.60	39.60	**39.60**
01/11/2018-30/11/2018	5804.15	5804.15	**5804.15**	37.95	37.95	**37.95**
01/12/2018-31/12/2018	6047.25	6047.25	**6047.25**	29.15	29.15	**29.15**
Subtotal 2018			**85160.35**			**322.30**
01/01/2019-31/01/2019	6807.90	6807.90	**6807.90**	40.15	40.15	**40.15**
01/02/2019-28/02/2019	8226.90	8226.90	**8226.90**	26.95	26.95	**26.95**
01/03/2019-31/03/2019	8924.85	8924.85	**8924.85**	39.05	39.05	**39.05**
01/04/2019-30/04/2019	9647.55	9647.55	**9647.55**	9.90	9.90	**9.90**
01/05/2019-31/05/2019	8281.90	8281.90	**8281.90**	19.25	19.25	**19.25**
01/06/2019-30/06/2019	8516.75	8516.75	**8516.75**	16.50	16.50	**16.50**
01/07/2019-31/07/2019	2965.05	2965.05	**2965.05**	40.15	40.15	**40.15**
01/08/2019-31/08/2019	4308.15	4308.15	**4308.15**	30.80	30.80	**30.80**
01/09/2019-30/09/2019	5478.00	5478.00	**5478.00**	47.30	47.30	**47.30**
01/10/2019-31/10/2019	4947.25	4947.25	**4947.25**	29.70	29.70	**29.70**
01/11/2019-30/11/2019	8996.35	8996.35	**8996.35**	29.70	29.70	**29.70**
01/12/2019-31/12/2019	7323.80	7323.80	**7323.80**	33.55	33.55	**33.55**

Period	$EG_{output,y}$			$EG_{import,y}$		
	Measured by M1	ETNs	Conservative values	Measured by M1	ETNs	Conservative values
	A	B	C=MIN(A, B)	D	E	F=MAX(D, E)
Subtotal 2019			**84424.45**			**363.00**
01/01/2020-31/01/2020	5234.90	5234.90	**5234.90**	48.95	48.95	**48.95**
01/02/2020-29/02/2020	6925.60	6925.60	**6925.60**	39.05	39.05	**39.05**
01/03/2020-31/03/2020	9511.70	9511.70	**9511.70**	35.75	35.75	**35.75**
01/04/2020-30/04/2020	9900.00	9900.00	**9900.00**	18.15	18.15	**18.15**
01/05/2020-31/05/2020	10876.80	10876.80	**10876.80**	25.30	25.30	**25.30**
01/06/2020-30/06/2020	4414.30	4414.30	**4414.30**	33.55	33.55	**33.55**
01/07/2020-31/07/2020	4093.10	4093.10	**4093.10**	60.50	60.50	**60.50**
01/08/2020-31/08/2020	4202.55	4202.55	**4202.55**	51.15	51.15	**51.15**
01/09/2020-30/09/2020	3786.20	3786.20	**3786.20**	50.60	50.60	**50.60**
01/10/2020-31/10/2020	3953.40	3953.40	**3953.40**	51.15	51.15	**51.15**
01/11/2020-30/11/2020	7163.20	7163.20	**7163.20**	26.95	26.95	**26.95**
01/12/2020-31/12/2020	5782.15	5782.15	**5782.15**	25.30	25.30	**25.30**
Subtotal 2020			**75843.90**			**466.40**
01/01/2021-31/01/2021	8797.25	8797.25	**8797.25**	23.65	23.65	**23.65**
01/02/2021-25/02/2021*	7463.50	7463.50	**7463.50**	30.80	30.80	**30.80**
Subtotal 2021			**16260.75**			**54.45**
Total			**435,609.350**			**1,982.750**

Table 2 Electricity imported from the grid through 10kV spare line (MWh)

Period	$EG_{im-spare,y}$		
	Measured by M3	ETNs	Conservative values
	G	H	I=MAX(G, H)
01/01/2016-31/01/2016	0.816	0.816	0.816
01/02/2016-29/02/2016	0.389	0.389	0.389
01/03/2016-31/03/2016	0.452	0.452	0.452
01/04/2016-30/04/2016	0.389	0.389	0.389
01/05/2016-31/05/2016	0.389	0.389	0.389
01/06/2016-30/06/2016	0.389	0.389	0.389
01/07/2016-31/07/2016	0.389	0.389	0.389
01/08/2016-31/08/2016	0.390	0.390	0.390
01/09/2016-30/09/2016	0.711	0.711	0.711
01/10/2016-31/10/2016	0.693	0.693	0.693
01/11/2016-30/11/2016	0.399	0.399	0.399
01/12/2016-31/12/2016	0.389	0.389	0.389
Subtotal 2016			**4.979**
01/01/2017-31/01/2017	0.389	0.389	0.389
01/02/2017-28/02/2017	0.389	0.389	0.389
01/03/2017-31/03/2017	0.389	0.389	0.389
01/04/2017-30/04/2017	0.389	0.389	0.389
01/05/2017-31/05/2017	0.389	0.389	0.389
01/06/2017-30/06/2017	0.389	0.389	0.389
01/07/2017-31/07/2017	0.390	0.390	0.390
01/08/2017-31/08/2017	0.534	0.534	0.534
01/09/2017-30/09/2017	0.389	0.389	0.389
01/10/2017-31/10/2017	1.211	1.211	1.211
01/11/2017-30/11/2017	0.962	0.962	0.962
01/12/2017-31/12/2017	0.564	0.564	0.564
Subtotal 2017			**5.995**
01/01/2018-31/01/2018	0.389	0.389	0.389

Period	$EG_{im-spare,y}$		
	Measured by M3	ETNs	Conservative values
	G	H	I=MAX(G, H)
01/02/2018-28/02/2018	0.389	0.389	0.389
01/03/2018-31/03/2018	0.389	0.389	0.389
01/04/2018-30/04/2018	0.389	0.389	0.389
01/05/2018-31/05/2018	0.389	0.389	0.389
01/06/2018-30/06/2018	0.541	0.541	0.541
01/07/2018-31/07/2018	0.389	0.389	0.389
01/08/2018-31/08/2018	0.392	0.392	0.392
01/09/2018-30/09/2018	2.176	2.176	2.176
01/10/2018-31/10/2018	0.389	0.389	0.389
01/11/2018-30/11/2018	0.389	0.389	0.389
01/12/2018-31/12/2018	0.389	0.389	0.389
Subtotal 2018			**6.221**
01/01/2019-31/01/2019	0.389	0.389	0.389
01/02/2019-28/02/2019	0.389	0.389	0.389
01/03/2019-31/03/2019	0.389	0.389	0.389
01/04/2019-30/04/2019	0.389	0.389	0.389
01/05/2019-31/05/2019	0.389	0.389	0.389
01/06/2019-30/06/2019	0.443	0.443	0.443
01/07/2019-31/07/2019	0.389	0.389	0.389
01/08/2019-31/08/2019	0.390	0.390	0.390
01/09/2019-30/09/2019	0.432	0.432	0.432
01/10/2019-31/10/2019	1.526	1.526	1.526
01/11/2019-30/11/2019	0.433	0.433	0.433
01/12/2019-31/12/2019	0.389	0.389	0.389
Subtotal 2019			**5.558**
01/01/2020-31/01/2020	0.520	0.520	0.520
01/02/2020-29/02/2020	0.549	0.549	0.549
01/03/2020-31/03/2020	0.389	0.389	0.389

Period	$EG_{im-spare,y}$		
	Measured by M3	ETNs	Conservative values
	G	H	I=MAX(G, H)
01/04/2020-30/04/2020	0.389	0.389	0.389
01/05/2020-31/05/2020	0.389	0.389	0.389
01/06/2020-30/06/2020	0.389	0.389	0.389
01/07/2020-31/07/2020	0.389	0.389	0.389
01/08/2020-31/08/2020	2.137	2.137	2.137
01/09/2020-30/09/2020	0.392	0.392	0.392
01/10/2020-31/10/2020	0.391	0.391	0.391
01/11/2020-30/11/2020	0.963	0.963	0.963
01/12/2020-31/12/2020	0.389	0.389	0.389
Subtotal 2020			**6.766**
01/01/2021-31/01/2021	0.389	0.389	0.389
01/02/2021-25/02/2021*	0.389	0.389	0.389
Subtotal 2021			**0.778**
Total			**30.297**

*Note: During this monitoring period, the cut-off time of $EG_{ouput,y}$, $EG_{import,y}$ and $EG_{im-spare,y}$ is at 24:00 of the last day of each month. Data in the monthly reading records were used to report, and crosschecked by ETNs. Readings during 01/02/2021-25/02/2021 are also verified with the confirmation letter issued by the grid company. The verification team accepted this approach for ERs calculation and cross check 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	$EG_{ouput,y}$ (MWh)	$EG_{import,y}$ (MWh)	$EG_{im-spare,y}$ (MWh)	$EG_{facility,y}$ (MWh)	$EF_{grid,CM,y}$ (tCO_2e/MWh)	BE_y (tCO_2e)
	J	K	L	M=J-K-L	N	O=M*N
01/01/2016- 31/12/2016	87,978.000	429.550	4.979	87,543.471	0.9309	81,494
01/01/2017- 31/12/2017	85,941.900	347.050	5.995	85,588.855	0.9309	79,674
01/01/2018- 31/12/2018	85,160.350	322.300	6.221	84,831.829	0.9309	78,969
01/01/2019- 31/12/2019	84,424.450	363.000	5.558	84,055.892	0.9309	78,247

Period	$EG_{ouput,y}$ (MWh)	$EG_{import,y}$ (MWh)	$EG_{lm\text{-}spare,y}$ (MWh)	$EG_{facility,y}$ (MWh)	$EF_{grid,CM,y}$ (tCO_2e/MWh)	BE_y (tCO_2e)
	J	K	L	M=J-K-L	N	O=M*N
01/01/2020-31/12/2020	75,843.900	466.400	6.766	75,370.734	0.9309	70,162
01/01/2021-25/02/2021	16,260.750	54.450	0.778	16,205.522	0.9309	15,085
Total	435,609.350	1,982.750	30.297	433,596.303	0.9309	403,631

Project emissions

As statement in ACM0002 (version 12.2.0)/31/, for the wind power activities, the project emissions from the project are not considered. Hence, PE_y during the monitoring period from 01/01/2016-25/02/2021 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_2e)
01/01/2016- 31/12/2016	81,494
01/01/2017- 31/12/2017	79,674
01/01/2018- 31/12/2018	78,969
01/01/2019- 31/12/2019	78,247
01/01/2020-31/12/2020	70,162
01/01/2021-25/02/2021	15,085
Total ERs claimed (in 1,883 days)	403,631

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

The emission reductions claimed are 403,631tCO_2e in this monitoring period (i.e. 1,883 days). Compared with yearly expected emission reductions 84,709 tCO_2e (365 days) in the registered CDM PDD (corresponding to 437,006tCO_2e for this monitoring period), the reported emission reductions in this monitoring period are lower than the expected. Considering the natural fluctuate of the wind resource and actual generator operation conditions, CTI 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 “Shandong Wendeng Zhangjiachan Wind Farm Project” in China (VCS Project ID: 1188) for the period 01/01/2016-25/02/2021.

The verification is based on the baseline and monitoring methodology ACM0002 (version 12.2.0), registered CDM PDD (version 2 dated 20/12/2011) and the VCS PD (version 01 dated 20/11/2013) and the monitoring report (version 02 dated 20/04/2021). 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 registered CDM PDD and VCS PD;
- the monitoring plan in registered CDM PDD is as per the applied methodology;

- the monitoring complies with the monitoring plan in the registered CDM PDD;

- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Version 4.0 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 "Shandong Wendeng Zhangjiachan Wind Farm Project" for the period 01/01/2016-25/02/2021 are fairly stated in the monitoring report (version 02 dated 20/04/2021). The GHG emission reductions were calculated correctly on the basis of the approved methodology ACM0002 (version 12.2.0) and the monitoring plan contained in the registered CDM PDD (version 2 dated 20/12/2011) and the VCS PD (version 01 dated 20/11/2013).

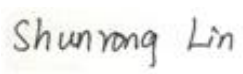
CTI can confirm that the GHG emission reductions are calculated without material misstatements. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CTI confirms the following statement:

Reporting period: 01/01/2016-25/02/2021

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

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
Year 2016 (01/01/2016- 31/12/2016)	81,494	0	0	81,494
Year 2017 (01/01/2017- 31/12/2017)	79,674	0	0	79,674

Year 2018 (01/01/2018- 31/12/2018)	78,969	0	0	78,969
Year 2019 (01/01/2019- 31/12/2019)	78,247	0	0	78,247
Year 2020 (01/01/2020- 31/12/2020)	70,162	0	0	70,162
Year 2021(01/01/2021-25/02/2021)	15,085	0	0	15,085
Total	403,631	0	0	403,631



Ms. Lin Shunrong

Technical Leader

25/10/2021

Ms. Wang Guolian

Team Reviewer

25/10/2021

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CCER	China Emission Trading System
CCETE	China Carbon Emission Trade Exchange
CER	Certified Emission Reduction(s)
CL	Clarification request
CO_2	Carbon Dioxide
CO_2e	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
ETNs	Electricity Transaction Notes
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IREC	International Renewable Energy Certificates
MP	MONITORING REPORT
MR	Monitoring Report
NCPG	North China Power Grid
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/	CGN Carbon Asset Management (Beijing) Co., Ltd: VER/VCU Monitoring Report for Shandong Wendeng Zhangjiachan Wind Farm Project, version 01 dated 04/03/2021 and version 02 dated 20/04/2021
/2/	CGN Carbon Asset Management (Beijing) Co., Ltd: Emission reduction calculation spreadsheet for Shandong Wendeng Zhangjiachan Wind Farm Project, version 1 dated 26/02/2021
/3/	Wendeng Zhangjiachan Wind Power Co., Ltd. and Linyi Electric Power Company.: Power Purchase Agreement for Shandong Wendeng Zhangjiachan Wind Farm Project
/4/	Wendeng Zhangjiachan Wind Power Co., Ltd. ：Diagram of power connection system
/5/	Wendeng Zhangjiachan Wind Power Co., Ltd. : VER monitoring manual and management procedure.
/6/	Wendeng Zhangjiachan Wind Power Co., Ltd. : Records of training for on-site staff.
/7/	Wendeng Zhangjiachan Wind Power Co., Ltd. : Daily operation and maintenance records, from 01/01/2016-25/02/2021
/8/	Wendeng Zhangjiachan Wind Power Co., Ltd. : Monthly reading records of Shandong Wendeng Zhangjiachan Wind Farm Project from 01/01/2016-25/02/2021
/9/	Linyi Electric Power Company.: Monthly electricity transaction notes (ETNs) and confirmation letter for 01/01/2016-25/02/2021
/10/	Local Village Complaint Book
/11/	Contact information of PP posted on the bulletin board of village committee
/12/	Yearly Meeting Memos of Local Stakeholder Consultation
/13/	CGN Carbon Asset Management (Beijing) Co., Ltd: the registered CDM PDD, version 2 dated 20/12/2011
/14/	CGN Carbon Asset Management (Beijing) Co., Ltd: GAP VCS PD version 01 dated 20/11/2013
/15/	Shandong Province Quality and Technology Supervision: Accreditation certificate of Electricity Metering Center of Linyi Electric Power Co., Ltd., issued on 17/05/2014, valid up to 16/05/2019, and issued on 17/05/2019, valid up to 16/06/2024

/16/	Electricity Metering Center of Linyi Electric Power Co., Ltd.: Calibration certificates for meters covering this monitoring period
/17/	State Economic and Trade Commission: Technical administrative code of electric energy metering (DL/T 448-2016)
/18/	SGS Climate Change Programme: Validation Report, version 1, dated 05/12/2011
/19/	CGN Carbon Asset Management (Beijing) Co., Ltd: VER/VCU Monitoring Report for Shandong Wendeng Zhangjiachan Wind Farm Project of previous monitoring period 26/02/2011-29/02/2012, version 01 dated 06/12/2013
/20/	Shenzhen CTI International Certification Co., Ltd: VCS Verification Report for Shandong Wendeng Zhangjiachan Wind Farm Project of previous monitoring period 26/02/2011-29/02/2012, version 01 dated 07/01/2014
/21/	Gamesa Wind(Tianjing) Co., Ltd.: Nameplate of the equipment
/22/	Ministry of Ecology and Environment of China: Interim Measures for the Management of Carbon Emission Rights Trading", Decree no. 19, dated 31/12/2020)
/23/	National Development and Reform Commission: Interim Measures for the Administration of Voluntary Greenhouse Gas Emission Reduction Trading, Climate Change [2012] No. 1668, dated 13/06/2012
/24/	National Development and Reform Commission: Announcement of the National Development and Reform Commission, Code 2 in 2017, dated 03/14/2017
/25/	Wendeng Zhangjiachan Wind Power Co., Ltd. : No double counting statement for the monitoring period 01/01/2016-25/02/2021, dated 25/10/2021
/26/	Wendeng Zhangjiachan Wind Power Co., Ltd. : Business licence

5.1.2. Methodologies, tools and other guidance

/27/	Verified Carbon Standard: VCS Standard, version 4.0
/28/	Verified Carbon Standard: VCS Program Guide, version 4.0
/29/	Verified Carbon Standard: VCS Sectoral Scopes http://v-c-s.org/node/448
/30/	Verified Carbon Standard: Registration and Issuance Process, version 4.0
/31/	UNFCCC EB: Approved methodology, ACM0002, version 12.2.0

5.1.3. Persons interviewed

/32/	Mr. Yu Wentao, Plant Director of Wendeng Zhangjiachan Wind Power Co., Ltd. Mr. Li Gongde, Engineer of Wendeng Zhangjiachan Wind Power Co., Ltd. Mr. Han Zhuan，Contact person of Wendeng Zhangjiachan Wind Power Co., Ltd. Mr. Zhang Xiaoguang, Local villager Ms. Han Li, Local villager Mr. Liu Xingjun, Official of Local Environment Protection Bureau Ms. Ji Huiying, Project Manager, CGN Carbon Asset Management (Beijing) Co., Ltd

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
CAR 01	Based on the on-site inspection, and by check the calibration records during this monitoring period, it was found the accuracy of M3 with SN. WY4D98135 described as 0.5s in the MR was inconsistent with the result of 2.0 reported in the calibration records. Thus a correction is requested.	It is a typo with the accuracy of meter M3 with SN. WY4D98135. The meter M3 has not been changed since the project starting operation and always runs well. Its accuracy is 2.0 as reported in the calibration records from 2011 to 2021. The typo has been corrected in the updated MR.	The verification team has checked the meter M3 with SN. WY4D98135 on site, and the calibration records from 2011 to 2021, thus confirmed the meter is the same one since the project operation, and the accuracy has been corrected as 2.0 in the updated MR.

5.1.5. Table 2: Clarification Requests

CL ID	Clarification Request	Response by Project Proponent	Verification Team Assessment
CL 01	The calibration 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