



VCS VERIFICATION REPORT

GANSU GUAZHOU BEIDAQIAO WIND
POWER PROJECT

(VCS PROJECT ID: 873)



Document Prepared By

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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 “Gansu Guazhou Beidaqiao Wind Power Project” (VCS Project ID:873) for the monitoring period 01/01/2013-31/12/2018 within the 1st VCS crediting period 22/01/2011-21/01/2021, 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 VCS Standard Version 4.2.

The verification was performed on the basis of VCS Standard Version 4.2 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 2 CLs and no CAR or FAR is raised in this monitoring period.

In CTI's opinion, the GHG emission reductions reported for the project in the monitoring report (version 03 dated 27/09/2022) are fairly stated. The GHG emission reductions of the period from 01/01/2013-31/12/2018 within the 1st VCS crediting period were calculated correctly on the basis of approved methodology ACM0002 “Grid-connected electricity generation from renewable sources”

(version 12.1.0), the monitoring plan contained in the registered VCS PD (i.e registered CDM PDD (version 2.0, dated 09/09/2010) for the 1st VCS crediting period 22/01/2011-21/01/2021.

CTI does not assume any responsibility towards the issuance and utilization of the VCU's hereby verified and certified. Request for issuance of VCU's 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 "Gansu Guazhou Beidaqiao Wind Power Project" during this monitoring period from 01/01/2013-31/12/2018 amount to 1,644,730 tCO₂e.

CONTENTS

Contents	4
1 Introduction	6
1.1 Objective	6
1.2 Scope and Criteria	6
1.3 Level of Assurance	7
1.4 Summary Description of the Project	7
2 Verification Process	8
2.1 Method and Criteria	8
2.2 Document Review	8
2.3 Interviews	9
2.4 Site Inspections	10
2.5 Resolution of Findings	10
2.6 Eligibility for Validation Activities	11
3 Validation Findings	11
3.1 Participation under Other GHG Programs	11
3.2 Methodology Deviations	11
3.3 Project Description Deviations	11
3.4 Grouped Project	12
4 Verification Findings	12
4.1 Project Implementation Status	12
4.2 Safeguards	18
4.3 AFOLU-Specific Safeguards	19
4.4 Accuracy of GHG Emission Reduction and Removal Calculations	19
4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals	26
4.6 Non-Permanence Risk Analysis	26
5 Verification conclusion	27
APPENDIX A: Abbreviations	30
APPENDIX B: references	31

APPENDIX C: Competence of team members and technical reviewers	34
APPENDIX D: Corrective Action Requests, clarification requests and Forward Action Requests.....	36

1 INTRODUCTION

LongYuan Power Group Energy Sale Co., LTD has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the verification and certification of emission reductions reported for the “Gansu Guazhou Beidaqiao Wind Power Project” (the Project) for the monitoring period 01/01/2013-31/12/2018. 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 “Gansu Guazhou Beidaqiao Wind Power Project” for the period 01/01/2013-31/12/2018.

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 4.1)/36/
- VCS Standard (version 4.2)/35/ and other relevant requirements defined by Verra;
- The approved methodology ACM0002 (version 12.1.0)/39/ 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. As per the para 3.9.1 of the VCS Standard Version 4.2, the project size categorization belongs to 'Large Project' as the expected annual emission reductions is 446,721tCO₂e greater than 300,000 tCO₂e. Therefore, according to the requirement of para 4.1.8 (4) of VCS standard Version 4.2 "The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects.", CTI applied a materiality threshold of 1% with respect to omission or misstatements concerning reported quantities of the project activity.

1.4 Summary Description of the Project

Sectoral Scope and Project Type

According to the VCS Program Guide (version 4.1)/36/ and Annex A of the Kyoto Protocol, the project is applicable under the following activity categories:

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

Project Background

The project is located in Guazhou County, Jiuquan City, Gansu Province, P.R.China. The four inflexions of geographical scopes of the project are A (E96.257°, N40.674°), B (96.304°, N40.674°), C (E96.304°, N40.744°) and D (E96.257°, N40.744°). The project activity was registered as a CDM project with Ref.4832 on 05/07/2011 and the 1st CDM crediting period is from 05/07/2011-04/07/2018. The project has been registered as VCS project with Ref. VCS 873 under VCS Standard Version 3.2 with the crediting period start date 22/01/2011 when the first group of wind turbines had underwent 240 hours consecutive trial operation, which is confirmed by checking the daily operation records/7/, the previous VCS monitoring report and verification report for the period of 22/01/2011-04/07/2011 /25//26/.

The amount of 110,255 tCO₂e VCU have been issued for the monitoring period 22/01/2011-04/07/2011 within the 1st VCS crediting period. GHG emission reductions have been applied for CDM for CERs within the 1st CDM crediting period, total 413,259 tCO₂e CERs have been issued for the monitoring periods 05/07/2011-29/12/2011 and 30/12/2011-31/12/2012.

The installed capacity of the project is 201MW equipped with 134 sets of wind turbines in type of SL1500/82, with unit capacity of 1500kW, manufactured by Sinovel Wind Group Co., Ltd.. The electricity generated by the project activity is supplied to the Northwest China Power Grid (hereafter referred to as "NWPG"), and the project is estimated to deliver 446,721 tCO₂e 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 VCS PD (i.e. registered CDM PDD version 2.0 dated 09/09/2010) and monitoring plan contained in the registered VCS PD, the applied methodology, and the VCS Standard (version 4.2) 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	Tong Dezheng	1.2, 8.1, 10.1	☒ DR ☒ SV ☒ RP ☐ TR
Technical Reviewer	Lin Shunrong	1.2, 14.1, 15.1	☒ DR ☐ SV ☐ RP ☒ TR

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

In addition to the VER/VCU monitoring report/1/, the registered VCS PD /10/, emission reduction calculation spreadsheet/2/, the following documents also were assessed as a part of the verification audit:

- The VCS validation report /24/;
- The previous VER/VCU monitoring report/25/ and verification report/26/, and previous CDM/CER monitoring reports /27/and verification reports/28/;
- Baseline and monitoring methodology ACM0002 (version 12.1.0) applied by the project/39/;

- Relevant decisions, clarifications and guidance from the Verra/35/-/38/; 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 01/06/2022, CTI visited the project proponent Longyuan (Jiuquan) Wind Power Co., Ltd. to perform on-site assessment. The key personnel of the project were interviewed or assisted the verification team. 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 /40/ are summarized in the table below:

Interviewed personnel	Role	Organization	Subject
Mr. Wang Jianfeng	Plant Director	Longyuan (Jiuquan) 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; The complaint by local stakeholders; The stakeholder consultation during the operation of the project activity; Project's sustainable development contributions.
Mr. Chen Zhibao	O&M Staff		
Mr. Gong Jinxing	O&M Staff		
Mr. Zhao Kaifei	Local resident	Local Village	The impact of the project activity; The complaint by local stakeholders; The stakeholder consultation during the operation of the project activity;
Mr. Wang Liwei			
Ms. Yu Lijun	Staff	Local Environment Protection Bureau	Project's sustainable development contributions.
Mr. Shi Di	Project Manager	LongYuan Power Group Energy Sale Co., LTD	Data collection and ER calculation.

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 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;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and the electricity receipts;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the registered VCS PD 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.

In addition, all parameters required by the monitoring methodology ACM0002 (version 12.1.0), 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 2 CLs and no CAR in this monitoring period. The CLs were satisfactorily addressed by the project proponents in the updated monitoring report version 03 dated 27/09/2022 (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/26/, and no FAR was raised during this verification.

2.6 Eligibility for Validation Activities

The project has been validated by DET NORSKE VERITAS under the CDM rules and registered as CDM project on 05/07/2011, and was registered as VCS project under VCS standard version 3.2.

CTI 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 pipeline and the previous verification reports/26//28/, it is confirmed the verification for this monitoring period 01/01/2013-31/12/2018 which is no more than consecutive 6 years is the first verification undertaken by CTI. Therefore, the verification undertaken by CTI is in line with the requirement for VVB stipulated in Section 4.1.20 of VCS standard version 4.2.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project has been registered as a CDM project on 05/07/2011 under the UNFCCC with Ref. 4832. The 1st CDM crediting period is 05/07/2011-04/07/2018 and the renewal of the crediting period is no longer possible. By checking the UNFCCC website (<https://cdm.unfccc.int/Projects/DB/DNV-CUK1305872143.32/view>), it is confirmed that total 413,259tCO_{2e} of CERs have been issued for the monitoring periods 05/07/2011-29/12/2011 and 30/12/2011-31/12/2012 within the 1st CDM crediting period.

3.2 Methodology Deviations

The validation process /15/ has assessed all factors and issues that constitute the basis for emission reductions from the project according to the applicable CDM methodology ACM0002 (version 12.1.0) /39/. There was not any methodology deviation applied to this project. Details refer to section 4.1.

3.3 Project Description Deviations

By checking the registered VCS PD, the previous VCS monitoring report with the monitoring period 22/01/2011-04/07/2011, the previous CDM verification reports with the monitoring period

05/07/2011-29/12/2011 and 30/12/2011-31/12/2012, and through the site visit interview with project owner, it is confirmed that the project started exporting electricity to the grid on 22/01/2011 when the first group of wind turbines had underwent 240 hours consecutive trial operation which should be considered as 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 as VCS project under VCS version 3.2 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. Considering the deviation for the project start date mentioned above, therefore, the first renewable crediting period of the Project under VCS is updated from 22/01/2011-04/07/2011 to 22/01/2011-21/01/2021, which lasts for 10 years. CTI confirms that the deviation for the crediting period has no impacts on the applicability of methodology, baseline scenario and additionality of the project.

As per the VCS Standard Version 4.3, as a registered CDM project with 7*3 CDM renewable crediting period, the VCU issuance is not eligible for beyond the end of those 21 years. Furthermore, considering the 20-year lifetime of the project activity, the VCS crediting period of the project activity will end on 21/01/2031.

CTI confirms that the project is fully implemented in accordance with the project description, and no any project description deviations. 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 summarizes the findings from the verification of the emission reductions reported for the “Gansu Guazhou Beidaqiao Wind Power Project” for the monitoring period 01/01/2013-31/12/2018.

4.1 Project Implementation Status

Project Implementation in accordance with the registered project design document

The project is a wind power grid-connected plant and locates in Guazhou County, Jiuquan City, Gansu Province, P.R.China. The four inflexions of geographical scopes of the project are verified on site by GPS system as A (E96.257°, N40.674°), B (96.304°, N40.674°), C (E96.304°, N40.744°) and D (E96.257°, N40.744°). The total installed capacity is 201MW equipped with 134 sets of wind turbines in type of SL1500/82, with unit capacity of 1500kW. It was confirmed by checking the operation logs/7/, the previous VCS/CDM monitoring reports and verification reports /25-/28/, the project started to trial-operate on 16/12/2010, the project started exporting electricity to the grid on 22/01/2011 when the

first group of wind turbines had underwent 240 hours consecutive trial operation, and the project was put into full commercial operation on 01/02/2011. The actual implementation of the project during this verification period was verified in terms of nameplates of wind turbines /29/ and the equipment purchase contract /32/. The details of the turbines with respect to their installation and capacity have been verified to be consistent with description indicated in the registered VCS PD.

The electricity generated by the project activity is supplied to the NWPG, which can be confirmed by the Power purchase agreement (PPA) signed between Longyuan (Jiuquan) Wind Power Co., Ltd. and State Grid Gansu Electric Power Company/3/. All the monitoring system in operation period is consistent with the description in monitoring plan contained in the registered VCS PD. 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/ and via on-site visit, 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, recording and reporting was verified to be in place/6/ and their implementation was confirmed by interview with the key operators/40/ and observing the operation.

CTI confirms that the project implementation is in accordance with the project description contained in registered VCS PD. 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 monitoring plan.

CL 01 was raised for clarifying the type of the wind turbine, which has been successfully closed, Refer to Appendix D for details.

Compliance of monitoring plan with monitoring methodology

CTI is able to confirm that the monitoring plan contained in the VCS PD is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 12.1.0).

Compliance of monitoring with the monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the VCS PD/10/, 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 12.1.0) 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, recording, aggregation, calculation and reporting) for these parameters is provided. The information flow for each parameter is further verified in the following sections.

Parameters fixed ex ante

“Data and parameters fixed ex ante” in the MR are checked against the registered VCS PD. The parameter $EF_{grid,CM,y}$ is the combined margin emission factor of the grid, which was determined ex-

ante at the validation stage and has been fixed during the first crediting period. CTI verified and confirms that the emission factor used in the monitoring report is in compliance with the VCS PD.

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 registered monitoring plan;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks, Electricity Transaction Notes(ETNs) and Electricity confirmation letter;
- 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 monitoring plan, the parameters to be monitored is as below:

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

By site inspection and checking the monitoring plan contained in the registered VCS PD and previous verification reports, CTI confirmed that the parameter is the net amount of electricity delivered to the grid by the project, which is the difference between the electricity exported to the grid ($EG_{\text{export},y}$) and the electricity imported from the grid ($EG_{\text{import},y}$). The electricity exported and the electricity imported are measured by bi-directional meters M1 and M2 installed at two loops in the onsite substation. The monitoring result is the sum of the measured values of the two meters. The meters' readings of electricity exports and imports were daily recorded, monthly aggregated.

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 installed in accordance with the monitoring plan. All the monitoring facilities and system have been verified by CTI during on-site visit.

By checking operation log /7/ and via on-site visit, it is confirmed that both meters were working well during this monitoring period. Via the on-site interview and by checking the daily operation and maintenance records/7/, daily and monthly reading records/8/, ETNs and Electricity confirmation letter/9/, it is confirmed by the verification team that the cut-off time of electricity exported transaction is at 24:00 of the third last day of every month and the cut-off time of electricity imported transaction is at 24:00 of the 20th day of every month. The electricity measured by meters M1 and M2 were recorded by the designated persons of the project proponent and the Grid at 24:00 daily, and then is aggregated monthly /9/. The ETNs and Electricity confirmation letter/9/ issued by the

grid company have been used for verifying the records of the electricity exported and the electricity imported.

As described above, the meters have been installed in accordance with VCS Program rules and meet all appropriate rules and requirements of VCS standard. CTI has on-site checked the location of the meters against the diagram of power connection system and found them to be consistent.

Data in the monthly reading records were used to the report, through a cross check with ETNs or electricity confirmation letter. The conservative values were used for the monitoring report and ERs calculation spreadsheet, which has been verified by the verification team. Supporting references and data required to determine the quantity of net electricity generation supplied by the project is found to be complete and transparent.

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 VCS PD and the methodology ACM0002(version 12.1.0) and corresponding tool(s), and the quality assurance and quality control procedures.

Both 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:

Meters	Type	SN	Accuracy class	Calibration Date	Validity	Calibration Entity
M1	SL7000	57034799	0.2S	02/04/2012 29/03/2013 25/03/2014 22/03/2015 16/03/2016 11/03/2017 08/03/2018	01/04/2013 28/03/2014 24/03/2015 21/03/2016 15/03/2017 10/03/2018 07/03/2019	Electric Energy Measurement Centre of State Grid Gansu Electric Power Corporation
M2	SL7000	57034801	0.2S	02/04/2012 29/03/2013 25/03/2014 22/03/2015 16/03/2016 11/03/2017 08/03/2018	01/04/2013 28/03/2014 24/03/2015 21/03/2016 15/03/2017 10/03/2018 07/03/2019	

Calibration records and accreditation certificates/11/12/ have been verified by the verification team. The actual accuracy of meters M1 and M2 is verified to be 0.2S, which is consistent with the requirement in the monitoring plan contained in the registered VCS PD and in compliance with the Technical administrative code of electric energy metering /14/. The calibration frequency of meters is annual, which is consistent with the monitoring plan. Based on the site visit and by checking the calibration reports, 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.

CL 02 was raised to clarify the type of the electricity meters which has been successfully closed. Refer to Appendix D for details.

Data management and control

Longyuan (Jiuquan) 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 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/40/ 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 contained in the VCS PD and the monitoring was performed in a transparent and comprehensive manner during this monitoring period.

By checking the UNFCCC website (<https://cdm.unfccc.int/Projects/DB/DNV-CUK1305872143.32/view>), it is confirmed that emission reductions within the monitoring periods 05/07/2011-29/12/2011 and 30/12/2011-31/12/2012 have been issued as CERs within the 1st CDM crediting period 05/07/2011-04/07/2018 and no other issuance request was submitted under CDM.

Therefore, it is concluded the monitoring periods of the project activity is consecutive and no double counting issuance has occurred for this verified monitoring period 01/01/2013-31/12/2018 under both VCS and CDM programmes. Via the on-site interview, the project proponent confirmed the emission reductions for this verified period are only requested for VCU's issuance.

The verification team has also checked other GHGs programs and forms of credit such as exchange platform of Chinese Certified Emission Reduction (CCER) projects, Gold Standard, EU ETS, IREC, China ETS 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 emission trading program and form of environmental credit, or has become eligible to do so since validation or previous verification

The project is completely voluntary CDM and VCS project, not included in an emissions trading program or any other mechanism that includes GHG allowance trading. Although the national emission trading scheme has been launched since 16/07/2021, it only covers the high-emission and energy intensive industries that emit at least 26,000 tons of CO₂e/year as per the Measures for the Administration of Carbon Emission Trading /18/ including thermal power generation, petrochemical, chemical, building materials, iron and steel, etc. By checking the business license/13/ of the project proponent, it is confirmed that the PP is qualified in business scope of renewable energy investment, thus is not included the mandatory emission control scheme and there is no emission cap enforced for the PP by further checking the compulsive company list under China ETS in public information/19/.

Moreover, it is confirmed by CTI the project is not registered as a CCER project in China, the emission reductions generated by the project activity are not eligible for transaction under China ETS as per the regulation/18/. Also, CCER mechanism has been suspended by Chinese government since 2017/20/, the project activity will not and is not allowed to register under CCER mechanism. Thus, the assessment team concluded that the project activity not involved on other emissions trading programs and other binding limits.

The statement of no double counting/21/ submitted by PP was checked by the verification team and confirmed to be correct in terms of the regulations and database of CCER and China ETS.

Via the on-site inspection, and through the interviews with the project proponent, local villagers and official from local environment bureau, and by checking the evidences provided by the project proponent, the verification team agrees on the following points regarding to the promotion of sustainability development by the project activity:

- SDG 7, Indicator 7.2.1 Renewable energy share in the total final energy consumption.
The project provides clean and renewable energy through making use of wind power, displacing fossil fuel power in the grid NWPG. During this monitoring period, 1,769,861.85 MWh of net electricity generated by wind energy was delivered to the NWPG. It is verified by checking the daily and monthly reading records/8/ and via on-site inspection. Meanwhile, by checking the approved VCS and CDM monitoring reports and verification reports /25//26//27//28/ for the previous monitoring, it is confirmed 2,333,207.502 MWh of cumulative renewal electricity verified has been supplied to the NWPG since the project operation until the end of this monitoring period. This contributes to increasing the share of clean energy consumption of China's "Action Plan for Carbon Dioxide Peaking Before 2030"/33/.
- SDG 8, Indicator 8.5 Numbers of job opportunities provided by implementation of the project.
Providing direct and indirect employment opportunities during construction and operation period, which promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for local residents. By checking staff roster listed in Appendix I of the

MR, it is confirmed that since operation of the project activity, 30 long term working opportunities, including 15 females and 15 males, are provided.

- SDG 13, Indicator Tonnes of greenhouse gas emissions avoided or removed.

As verified by on-site inspection, and via checking the emission reduction calculation sheet/2/ and the daily and monthly reading records/8/, 1,644,730tCO₂e GHG emission reductions are generated by the project activity during this monitoring period. And by checking the VCS and CDM monitoring and verification reports /25//26//27//28/ for the previous monitoring periods, it is confirmed the cumulative emission reductions are 2,168,244 tCO₂e since the project operation until the end of this monitoring period. This contributes to 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"/34/.

Meanwhile, by checking the approved VCS and CDM monitoring reports for the previous monitoring, it is confirmed the current project contributions with all impacts for the previous monitoring periods were not included in VCS monitoring report or reported in Sustainable Development Contribution Report, thus should not be calculated in the cumulative impact. Thus, the cumulative impacts in project lifetime are same as the one in this monitoring period.

In conclusion, Verification Team was able to confirm that the project implementation is in accordance with the project description contained in the VCS PD. All required equipments and procedures are available and implemented in an appropriate manner. All necessary monitoring instruments are installed and operated. The project is completely operational and the same has been confirmed on-site. Neither mistakes nor malfunction on main meters have been observed during this monitoring period.

4.2 Safeguards

4.2.1 No Net Harm

Via on-site inspection and checking the EIA summary and conclusion provided in the approved VCS PD, it is confirmed that the impact caused by the project activity on the surrounding ecosystem and residents, wastewater, noise, solid waste and atmosphere etc. is insignificant, 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.

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. As verified in Section 4.1 above, 1,769,861.85 MWh of clean energy was supplied by the project activity to local area and 1,644,730tCO₂e GHG emission reductions were generated. These contributions achieve the China's stated sustainable development priorities in respects to increasing labor force participation rate, increasing the share of clean energy consumption and strengthening resistance capacity to climate

risks/34/. Therefore, the implementation of the project activity is beneficial to local social economic environment.

4.2.2 Local Stakeholder Consultation

On 20/09/2009, under the support of local government, the project owner successfully held a stakeholder s' meeting in Guazhou County. 12 stakeholder representatives participated the meeting, respectively from the Development and Reform Bureau of Guazhou County, the Environmental Protection Bureau, the local Power Grid Corporation and local residents.

The project participants have also carried out a public survey on the project in the format of questionnaires. Aimed to the dispersive characteristic of stakeholders in the project, the visiting and the investigational way had been used to invite the stakeholders. Moreover, to make sure the results more representative, all these informants came from nearby areas and covered different ages and occupations.

The stakeholder meeting and 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.

For continuous communication with local stakeholders, the project owner carried out questionnaire survey for the local stakeholder to collect the relevant comments and suggestions in August 2014, August 2016 and August 2018 during this monitoring period. Via checking the results of the questionnaire/31/, it is confirmed by the verification team that no negative comments were received.

All such conclusion has been verified through site visit and checking VCS PD.

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:

$$ER_y = BE_y - PE_y - L_y$$

Baseline emissions

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

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

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

$EF_{\text{grid},\text{CM},y}$ is the grid emission factor of the which has been verified ex-ante in the validation stage in the VCS PD as 0.9293 tCO₂e/MWh.

The net electricity supplied to the grid by the project ($EG_{\text{facility},y}$)

As per the Section 4.1 above, $EG_{\text{facility},y}$ is determined as:

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

The verification team has checked the daily and monthly reading records, ETNs, Confirmation letter for electricity readings issued by the grid company and emission reduction calculation sheet, and confirmed the data and calculation applied are correct, complete and transparent.

The reading records and $EG_{\text{export},y}$ calculation are summarized in Table 1 as follow :

Table 1 The electricity exported to the grid by the Project ($EG_{\text{export},y}$)

Period	Electricity exported to the grid ($EG_{\text{export},y}$) (MWh)				
	Values from meter readings			Values from ETNs	Conservative Value
	Meter (M1)	Meter (M2)	Total		
	A	B	C=A+B	D	E=Min (C, D)
01/01/2013-29/01/2013	9,917.25	10,125.50	20,042.75	20,042.75	20,042.75
30/01/2013-26/02/2013	14,867.12	15,940.75	30,807.87	30,807.87	30,807.87
27/02/2013-29/03/2013	15,650.25	18,025.00	33,675.25	33,675.25	33,675.25
30/03/2013-28/04/2013	7,582.75	8,993.25	16,576.00	16,576.00	16,576.00
29/04/2013-29/05/2013	18,556.12	22,433.25	40,989.37	40,989.37	40,989.37
30/05/2013-28/06/2013	16,286.37	19,004.12	35,290.49	35,290.49	35,290.49
29/06/2013-29/07/2013	13,110.12	14,639.62	27,749.74	27,749.74	27,749.74
30/07/2013-29/08/2013	21,224.00	22,855.00	44,079.00	44,079.00	44,079.00
30/08/2013-28/09/2013	19,136.25	21,630.00	40,766.25	40,766.25	40,766.25
29/09/2013-29/10/2013	13,307.00	15,149.75	28,456.75	28,456.75	28,456.75
30/10/2013-28/11/2013	22,090.25	23,729.12	45,819.37	45,819.37	45,819.37
29/11/2013-29/12/2013	13,527.50	15,806.00	29,333.50	29,333.50	29,333.50
30/12/2013-31/12/2013	717.50	766.50	1,484.00	1,484.00	1,484.00
01/01/2013-31/12/2013	185,972.48	209,097.86	395,070.34	395,070.34	395,070.34
01/01/2014-29/01/2014	8,806.87	10,226.12	19,032.99	19,032.99	19,032.99
30/01/2014-26/02/2014	17,878.00	19,931.62	37,809.62	37,809.62	37,809.62
27/02/2014-29/03/2014	15,381.62	16,556.75	31,938.37	31,938.37	31,938.37
30/03/2014-28/04/2014	18,186.00	18,355.75	36,541.75	36,541.75	36,541.75
29/04/2014-29/05/2014	17,625.12	18,805.50	36,430.62	36,430.62	36,430.62
30/05/2014-28/06/2014	16,837.62	18,674.25	35,511.87	35,511.87	35,511.87
29/06/2014-29/07/2014	14,729.75	16,405.37	31,135.12	31,135.12	31,135.12
30/07/2014-29/08/2014	14,872.37	16,270.62	31,142.99	31,142.99	31,142.99
30/08/2014-28/09/2014	8,279.25	8,951.25	17,230.50	17,230.50	17,230.50
29/09/2014-29/10/2014	12,073.25	13,100.50	25,173.75	25,173.75	25,173.75
30/10/2014-28/11/2014	6,373.50	6,966.75	13,340.25	13,340.25	13,340.25

29/11/2014-29/12/2014	7,921.37	8,828.75	16,750.12	16,750.12	16,750.12
30/12/2014-31/12/2014	732.37	763.87	1,496.24	1,496.24	1,496.24
01/01/2014-31/12/2014	159,697.09	173,837.10	333,534.19	333,534.19	333,534.19
01/01/2015-29/01/2015	9,478.87	10,823.75	20,302.62	20,302.62	20,302.62
30/01/2015-26/02/2015	10,775.62	11,565.75	22,341.37	22,341.37	22,341.37
27/02/2015-29/03/2015	10,969.87	11,648.87	22,618.74	22,618.74	22,618.74
30/03/2015-28/04/2015	11,620.00	12,325.25	23,945.25	23,945.25	23,945.25
29/04/2015-29/05/2015	9,901.50	11,139.62	21,041.12	21,041.12	21,041.12
30/05/2015-28/06/2015	11,387.25	13,165.25	24,552.50	24,552.50	24,552.50
29/06/2015-29/07/2015	6,032.25	7,058.62	13,090.87	13,090.87	13,090.87
30/07/2015-29/08/2015	12,996.37	15,697.50	28,693.87	28,693.87	28,693.87
30/08/2015-28/09/2015	7,388.50	8,022.87	15,411.37	15,411.37	15,411.37
29/09/2015-29/10/2015	7,299.25	8,030.75	15,330.00	15,330.00	15,330.00
30/10/2015-28/11/2015	5,846.75	6,473.25	12,320.00	12,320.00	12,320.00
29/11/2015-29/12/2015	4,826.50	5,217.62	10,044.12	10,044.12	10,044.12
30/12/2015-31/12/2015	58.62	89.25	147.87	147.87	147.87
01/01/2015-31/12/2015	108,581.35	121,258.35	229,839.70	229,839.70	229,839.70
01/01/2016-29/01/2016	11,786.25	12,362.00	24,148.25	24,148.25	24,148.25
30/01/2016-27/02/2016	9,025.62	9,550.62	18,576.24	18,576.24	18,576.24
28/02/2016-29/03/2016	8,223.25	8,196.12	16,419.37	16,419.37	16,419.37
30/03/2016-28/04/2016	10,485.12	10,975.12	21,460.24	21,460.24	21,460.24
29/04/2016-29/05/2016	9,190.12	10,379.25	19,569.37	19,569.37	19,569.37
30/05/2016-28/06/2016	10,005.62	12,358.50	22,364.12	22,364.12	22,364.12
29/06/2016-29/07/2016	9,699.37	10,552.50	20,251.87	20,251.87	20,251.87
30/07/2016-29/08/2016	11,156.25	13,596.62	24,752.87	24,752.87	24,752.87
30/08/2016-28/09/2016	7,170.62	9,001.12	16,171.74	16,171.74	16,171.74
29/09/2016-29/10/2016	7,259.87	8,778.87	16,038.74	16,038.74	16,038.74
30/10/2016-28/11/2016	5,412.75	6,788.25	12,201.00	12,201.00	12,201.00
29/11/2016-29/12/2016	9,161.25	10,746.75	19,908.00	19,908.00	19,908.00
30/12/2016-31/12/2016	463.75	499.62	963.37	963.37	963.37
01/01/2016-31/12/2016	109,039.84	123,785.34	232,825.18	232,825.18	232,825.18
01/01/2017-29/01/2017	6,497.75	7,735.87	14,233.62	14,233.62	14,233.62
30/01/2017-26/02/2017	6,813.62	8,575.00	15,388.62	15,388.62	15,388.62
27/02/2017-29/03/2017	12,800.37	13,854.75	26,655.12	26,655.12	26,655.12
30/03/2017-28/04/2017	8,344.00	9,825.37	18,169.37	18,169.37	18,169.37
29/04/2017-29/05/2017	15,315.12	17,269.87	32,584.99	32,584.99	32,584.99
30/05/2017-28/06/2017	6,107.50	6,307.00	12,414.50	12,414.50	12,414.50
29/06/2017-29/07/2017	9,786.00	9,981.12	19,767.12	19,767.12	19,767.12
30/07/2017-29/08/2017	16,759.75	17,970.75	34,730.50	34,730.50	34,730.50
30/08/2017-28/09/2017	12,824.87	14,264.25	27,089.12	27,089.12	27,089.12
29/09/2017-29/10/2017	10,974.25	13,135.50	24,109.75	24,109.75	24,109.75
30/10/2017-28/11/2017	8,411.37	9,590.00	18,001.37	18,001.37	18,001.37
29/11/2017-29/12/2017	12,463.50	14,707.87	27,171.37	27,171.37	27,171.37
30/12/2017-31/12/2017	159.25	178.50	337.75	337.75	337.75
01/01/2017-31/12/2017	127,257.35	143,395.85	270,653.20	270,653.20	270,653.20
01/01/2018-29/01/2018	12,665.62	14,623.00	27,288.62	27,288.62	27,288.62
30/01/2018-26/02/2018	9,989.00	11,216.62	21,205.62	21,205.62	21,205.62

27/02/2018-29/03/2018	13,006.00	15,121.75	28,127.75	28,127.75	28,127.75
30/03/2018-28/04/2018	12,495.87	14,238.00	26,733.87	26,733.87	26,733.87
29/04/2018-29/05/2018	7,957.25	8,306.37	16,263.62	16,263.62	16,263.62
30/05/2018-28/06/2018	14,785.75	17,122.87	31,908.62	31,908.62	31,908.62
29/06/2018-29/07/2018	11,277.87	12,344.50	23,622.37	23,622.37	23,622.37
30/07/2018-29/08/2018	18,107.25	19,986.75	38,094.00	38,094.00	38,094.00
30/08/2018-28/09/2018	13,776.87	15,678.25	29,455.12	29,455.12	29,455.12
29/09/2018-29/10/2018	15,652.87	18,220.12	33,872.99	33,872.99	33,872.99
30/10/2018-28/11/2018	7,920.50	8,920.62	16,841.12	16,841.12	16,841.12
29/11/2018-29/12/2018	8,206.62	9,947.87	18,154.49	18,154.49	18,154.49
30/12/2018-31/12/2018	277.37	411.25	688.62	688.62	688.62
01/01/2018-31/12/2018	146,118.84	166,137.97	312,256.81	312,256.81	312,256.81
Total	836,666.95	937,512.47	1,774,179.42	1,774,179.42	1,774,179.42

*Note:

1. During this monitoring period, all electricity data measured by Meter M1 and M2 were daily recorded by project owner and monthly reported. The cut-off time for electricity exports measured by Meter M1 and M2 was at 24:00 of the third last day of every month and ETNs were issued by grid company for the cross check.
2. Readings of electricity exported to the grid for the period from 1st to 29th in January, 30th to 31th in December during 2013-2018 were sourced from the daily records and verified with the confirmation letter issued by the grid company/9/. The verification team accepted this approach for ERs calculation since it is reasonable.

The reading records and $EG_{import,y}$ calculation are summarized in Table 1 as follow:

Table 1 The electricity imported from the grid by the Project ($EG_{import,y}$)

Period	Electricity imported from the grid ($EG_{import,y}$) (MWh)				
	Values from meter readings			Values from ETNs	Conservative Value
	Meter (M1)	Meter (M2)	Total		
	A	B	C=A+B	D	E=Max(C,D)
01/01/2013-20/01/2013	32.38	34.13	66.51	66.51	66.51
21/01/2013-20/02/2013	31.50	30.63	62.13	62.13	62.13
21/02/2013-20/03/2013	24.50	26.25	50.75	50.75	50.75
21/03/2013-20/04/2013	37.63	28.88	66.51	66.51	66.51
21/04/2013-20/05/2013	18.38	18.38	36.76	36.76	36.76
21/05/2013-20/06/2013	19.25	19.25	38.50	38.50	38.50
21/06/2013-20/07/2013	35.00	35.00	70.00	70.00	70.00
21/07/2013-20/08/2013	28.88	29.75	58.63	58.63	58.63
21/08/2013-20/09/2013	15.75	14.88	30.63	30.63	30.63
21/09/2013-20/10/2013	26.25	26.25	52.50	52.50	52.50
21/10/2013-20/11/2013	38.50	38.50	77.00	77.00	77.00
21/11/2013-20/12/2013	42.00	41.13	83.13	83.13	83.13
21/12/2013-31/12/2013	12.25	10.50	22.75	22.75	22.75
01/01/2013-31/12/2013	362.27	353.53	715.80	715.80	715.80
01/01/2014-20/01/2014	36.75	34.13	70.88	70.88	70.88
21/01/2014-20/02/2014	37.63	37.63	75.26	75.26	75.26
21/02/2014-20/03/2014	33.25	34.13	67.38	67.38	67.38
21/03/2014-20/04/2014	21.00	21.00	42.00	42.00	42.00

21/04/2014-20/05/2014	25.38	24.50	49.88	49.88	49.88
21/05/2014-20/06/2014	22.75	22.75	45.50	45.50	45.50
21/06/2014-20/07/2014	21.00	20.13	41.13	41.13	41.13
21/07/2014-20/08/2014	13.13	12.25	25.38	25.38	25.38
21/08/2014-20/09/2014	29.75	28.00	57.75	57.75	57.75
21/09/2014-20/10/2014	35.88	36.75	72.63	72.63	72.63
21/10/2014-20/11/2014	41.13	42.00	83.13	83.13	83.13
21/11/2014-20/12/2014	35.00	34.13	69.13	69.13	69.13
21/12/2014-31/12/2014	7.00	6.13	13.13	13.13	13.13
01/01/2014-31/12/2014	359.65	353.53	713.18	713.18	713.18
01/01/2015-20/01/2015	31.50	32.38	63.88	63.88	63.88
21/01/2015-20/02/2015	33.25	35.00	68.25	68.25	68.25
21/02/2015-20/03/2015	17.50	17.50	35.00	35.00	35.00
21/03/2015-20/04/2015	22.75	21.00	43.75	43.75	43.75
21/04/2015-20/05/2015	21.00	19.25	40.25	40.25	40.25
21/05/2015-20/06/2015	18.38	19.25	37.63	37.63	37.63
21/06/2015-20/07/2015	20.13	20.13	40.26	40.26	40.26
21/07/2015-20/08/2015	16.63	15.75	32.38	32.38	32.38
21/08/2015-20/09/2015	23.63	24.50	48.13	48.13	48.13
21/09/2015-20/10/2015	24.50	22.75	47.25	47.25	47.25
21/10/2015-20/11/2015	36.75	36.75	73.50	73.50	73.50
21/11/2015-20/12/2015	45.50	39.38	84.88	84.88	84.88
21/12/2015-31/12/2015	16.63	15.75	32.38	32.38	32.38
01/01/2015-31/12/2015	328.15	319.39	647.54	647.54	647.54
01/01/2016-20/01/2016	24.5	22.75	47.25	47.25	47.25
21/01/2016-20/02/2016	38.50	35.88	74.38	74.38	74.38
21/02/2016-20/03/2016	20.13	19.25	39.38	39.38	39.38
21/03/2016-20/04/2016	26.25	25.38	51.63	51.63	51.63
21/04/2016-20/05/2016	35.88	34.13	70.01	70.01	70.01
21/05/2016-20/06/2016	29.75	27.13	56.88	56.88	56.88
21/06/2016-20/07/2016	24.50	22.75	47.25	47.25	47.25
21/07/2016-20/08/2016	27.13	21.00	48.13	48.13	48.13
21/08/2016-20/09/2016	32.38	30.63	63.01	63.01	63.01
21/09/2016-20/10/2016	42.00	40.25	82.25	82.25	82.25
21/10/2016-20/11/2016	35.00	31.50	66.50	66.50	66.50
21/11/2016-20/12/2016	45.50	42.88	88.38	88.38	88.38
21/12/2016-31/12/2016	27.13	27.13	54.26	54.26	54.26
01/01/2016-31/12/2016	408.65	380.66	789.31	789.31	789.31
01/01/2017-20/01/2017	37.63	34.13	71.76	71.76	71.76
21/01/2017-20/02/2017	36.75	34.13	70.88	70.88	70.88
21/02/2017-20/03/2017	31.50	31.50	63.00	63.00	63.00
21/03/2017-20/04/2017	23.63	21.88	45.51	45.51	45.51
21/04/2017-20/05/2017	27.13	24.50	51.63	51.63	51.63
21/05/2017-20/06/2017	15.75	14.00	29.75	29.75	29.75
21/06/2017-20/07/2017	32.38	28.88	61.26	61.26	61.26
21/07/2017-20/08/2017	35.00	30.63	65.63	65.63	65.63

21/08/2017-20/09/2017	47.25	43.75	91.00	91.00	91.00
21/09/2017-20/10/2017	23.63	21.00	44.63	44.63	44.63
21/10/2017-20/11/2017	47.25	39.38	86.63	86.63	86.63
21/11/2017-20/12/2017	31.50	28.88	60.38	60.38	60.38
21/12/2017-31/12/2017	11.38	10.50	21.88	21.88	21.88
01/01/2017-31/12/2017	400.78	363.16	763.94	763.94	763.94
01/01/2018-20/01/2018	25.38	22.75	48.13	48.13	48.13
21/01/2018-20/02/2018	43.75	35.88	79.63	79.63	79.63
21/02/2018-20/03/2018	33.25	32.38	65.63	65.63	65.63
21/03/2018-20/04/2018	24.50	21.88	46.38	46.38	46.38
21/04/2018-20/05/2018	19.25	21.00	40.25	40.25	40.25
21/05/2018-20/06/2018	18.38	20.13	38.51	38.51	38.51
21/06/2018-20/07/2018	28.00	28.00	56.00	56.00	56.00
21/07/2018-20/08/2018	19.25	21.00	40.25	40.25	40.25
21/08/2018-20/09/2018	22.75	18.38	41.13	41.13	41.13
21/09/2018-20/10/2018	16.63	14.88	31.51	31.51	31.51
21/10/2018-20/11/2018	38.50	36.75	75.25	75.25	75.25
21/11/2018-20/12/2018	42.00	38.50	80.50	80.50	80.50
21/12/2018-31/12/2018	21.88	22.75	44.63	44.63	44.63
01/01/2018-31/12/2018	353.52	334.28	687.80	687.80	687.80
Total	2,213.02	2,104.55	4,317.57	4,317.57	4,317.57

*Note:

1. During this monitoring period, all electricity data measured by Meter M1 and M2 were daily recorded by project owner and monthly reported. The cut-off time for electricity imports measured by Meter M1 and M2 was at 24:00 of the 20th day of every month and ETNs were issued by grid company for the cross check.
2. Readings of electricity imported from the grid for the period from 1st to 20th in January, 21th to 31th in December during 2013-2018 were sourced from the daily records and verified with the confirmation letter issued by the grid company/9/. The verification team accepted this approach for ERs calculation since it is reasonable.

The corresponding baseline emission reductions during this monitoring period is calculated as:

Period	EG _{facility,y} (MWh)	EF _{grid,CM,y} (tCO _{2e} /MWh)	BE _y (tCO _{2e})
01/01/2013~31/12/2013	394,354.54	0.9293	366,473
01/01/2014~31/12/2014	332,821.01	0.9293	309,290
01/01/2015~31/12/2015	229,192.16	0.9293	212,988
01/01/2016~31/12/2016	232,035.87	0.9293	215,630
01/01/2017~31/12/2017	269,889.26	0.9293	250,808
01/01/2018~31/12/2018	311,569.01	0.9293	289,541
Total	1,769,861.85	-	1,644,730

Project emissions

As statement in the registered VCS PD, for the wind power activities, the project emissions from the project is zero. Hence, PE_y during the monitoring period from Gansu Guazhou Beidaqiao Wind Power Project is zero.

Leakages

Leakage does not need to be accounted for this project as per the monitoring methodology ACM0002 (version 12.1.0).

Emission reductions

The emission reductions for this monitoring period were calculated as:

Monitoring period	GHG emission reductions or removals (tCO ₂ e)
01/01/2013~31/12/2013	366,473
01/01/2014~31/12/2014	309,290
01/01/2015~31/12/2015	212,988
01/01/2016~31/12/2016	215,630
01/01/2017~31/12/2017	250,808
01/01/2018~31/12/2018	289,541
Total ERs claimed (in 2,191 days)	1,644,730

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

The emission reductions claimed are 1,644,730 tCO₂e in this monitoring period (i.e. 2,191 days). Compared with expected emission reductions 2,681,550 tCO₂e (calculated as $446,721/365d \times 2,191d$), the reported emission reductions in this monitoring period are 38.66% lower than the expected in the registered VCS PD. Considering the natural fluctuate of the wind resource, actual generator operation conditions and limitation of the local grid absorption capacity, CTI is able to confirm that the actual power supply and also emission reductions reported in this monitoring period are reasonable and appropriate.

Therefore, 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 “Gansu Guazhou Beidaqiao Wind Power Project” in China (VCS Project ID: 873) for the period 01/01/2013-31/12/2018.

The verification is based on the baseline and monitoring methodology ACM0002 (version 12.1.0), the VCS PD. 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 Standard Version 4.2 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 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 4.2 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 deviation for the crediting period has no impacts on the applicability of methodology, baseline scenario and additionality of the project.

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.

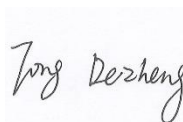
In CTI's opinion the GHG emissions reductions of the "Gansu Guazhou Beidaqiao Wind Power Project" for the period 01/01/2013-31/12/2018 are fairly stated in the monitoring report (version 03 dated 27/09/2022). The GHG emission reductions were calculated correctly on the basis of the approved methodology ACM0002 (version 12.1.0) and the monitoring plan contained in the registered VCS PD.

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:

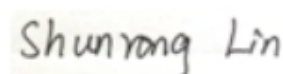
Reporting period: 01/01/2013-31/12/2018

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01/01/2013~31/12/2013	366,473	0	0	366,473
01/01/2014~31/12/2014	309,290	0	0	309,290
01/01/2015~31/12/2015	212,988	0	0	212,988
01/01/2016~31/12/2016	215,630	0	0	215,630
01/01/2017~31/12/2017	250,808	0	0	250,808
01/01/2018~31/12/2018	289,541	0	0	289,541
Total	1,644,730	0	0	1,644,730



Mr. Tong Dezheng
Technical Leader



Ms. Lin Shunrong
Team Reviewer

28/09/2022

28/09/2022

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CCER	Chinese Certified Emission Reduction
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
ETN	Electricity Transaction Note
EU ETS	EU Emissions Trading Scheme
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse Gas(es)
IREC	International Renewable Energy Certificates
MP	MONITORING REPORT
MR	Monitoring Report
NWPG	Northwest China Power Grid
PD	Project Description
PP	Project Proponent
SN	Serial Number
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCES

Documentation used to verify the information provided by the project proponents

/1/	LongYuan Power Group Energy Sale Co., LTD: VER/VCU Monitoring Report for Gansu Guazhou Beidaqiao Wind Power Project, V01 dated 23/05/2022, version 02 dated 06/06/2022, version 03 dated 27/09/2022
/2/	LongYuan Power Group Energy Sale Co., LTD: Emission reduction calculation spreadsheet for Gansu Guazhou Beidaqiao Wind Power Project, V01 dated 23/05/2022
/3/	Longyuan (Jiuquan) Wind Power Co., Ltd. and State Grid Gansu Electric Power Company: Power Purchase Agreement for Gansu Guazhou Beidaqiao Wind Power Project
/4/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Diagram of power connection system
/5/	Longyuan (Jiuquan) Wind Power Co., Ltd.: VER monitoring manual and management procedure.
/6/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Records of training for on-site staff.
/7/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Daily operation and maintenance records.
/8/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Daily and monthly reading records of Gansu Guazhou Beidaqiao Wind Power Project from 01/01/2013-31/12/2018
/9/	State Grid Gansu Electric Power Company.: Electricity Transaction Notes from 01/01/2013-31/12/2018 & Confirmation letter for electricity readings issued by the grid company
/10/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Registered CDM PDD (version 2.0 dated 09/09/2010)
/11/	Gansu Provincial Bureau of Quality and Technical Supervision: Accreditation certificate of Electric Energy Measurement Centre of State Grid Gansu Electric Power Corporation, issued on 26/01/2011 and valid to 25/01/2016, 29/09/2014 and valid to 28/09/2018, 29/09/2018 and valid to 28/09/2022
/12/	Electric Energy Measurement Centre of State Grid Gansu Electric Power Corporation: Calibration certificates for meters M1 and M2 covering this monitoring period
/13/	Business license of Longyuan (Jiuquan) Wind Power Co., Ltd.
/14/	State Economic and Trade Commission: Technical administrative code of electric energy metering (DL/T 448-2016)
/15/	UNFCCC, http://cdm.unfccc.int

/16/	Gold Standard, http://www.goldstandard.org/
/17/	China CCER Exchange Info-platform, http://cdm.ccchina.org.cn/ccer.aspx
/18/	Measures for the Administration of Carbon Emission Trading, issued by Ministry of Ecology and Environment of China, dated 31/12/2020
/19/	Enforced company list in China cap & trade scheme, issued by Ministry of Ecology and Environment of China
/20/	Announcement of the National Development and Reform Commission, Code 2 in 2017, issued by National Development and Reform Commission, dated 03/14/2017
/21/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Statement of no double counting
/22/	Longyuan (Jiuquan) Wind Power Co., Ltd.: Staff roster
/23/	Statistical Bulletin on National Economic and Social Development by Year: http://www.stats.gov.cn/search/
/24/	DET NORSKE VERITAS: VCS Validation Report, version 01, dated 23/05/2011
/25/	VER/VCU Monitoring Report for Gansu Guazhou Beidaqiao Wind Power Project of previous monitoring period 22/01/2011-04/07/2011, version 2.0 dated 11/06/2012
/26/	DET NORSKE VERITAS: VCS Verification Report for Gansu Guazhou Beidaqiao Wind Power Project of previous monitoring period 22/01/2011-04/07/2011, Report No: 2012-9355, dated 03/07/ 2012
/27/	CDM/CER Monitoring Reports for Gansu Guazhou Beidaqiao Wind Power Project of previous CDM monitoring periods 05/07/2011-29/12/2011 and 30/12/2011-31/12/2012
/28/	CDM Verification Reports for Gansu Guazhou Beidaqiao Wind Power Project of previous monitoring period 05/07/2011-29/12/2011 and 30/12/2011-31/12/2012
/29/	Sinovel Wind Group Co., Ltd.: Nameplates of the equipment
/30/	Feasibility Study Report of Gansu Guazhou Beidaqiao Wind Power Project
/31/	Questionnaires for local stakeholders
/32/	Co-signed by the Sinovel Wind Group Co., Ltd. and Longyuan (Jiuquan) Wind Power Co., Ltd.: Wind Turbines Purchase Agreement, dated 28/12/2009
/33/	Action Plan for Carbon Dioxide Peaking Before 2030 published by the State Council on 24/10/2021
/34/	China's National Programme to Address Climate Change published by the State Council on 28/03/2008

Methodologies, tools and other guidance

/35/	Verified Carbon Standard: VCS Standard, version 4.2
/36/	Verified Carbon Standard: VCS Program Guide, version 4.1
/37/	Verified Carbon Standard: VCS Sectoral Scopes http://v-c-s.org/node/448
/38/	Verified Carbon Standard: Registration and Issuance Process, version 4.1
/39/	UNFCCC EB: Approved methodology, ACM0002 , version 12.1.0

Persons interviewed

	Interviewed personnel	Role	Organization
/40/	Mr. Wang Jianfeng	Plant Director	Longyuan (Jiuquan) Wind Power Co., Ltd.
	Mr. Chen Zhibao	O&M Staff	
	Mr. Gong Jinxing	O&M Staff	
	Mr. Zhao Kaifei	Local resident	Local Village
	Mr. Wang Liwei		
	Ms. Yu Lijun	Staff	Local Environment Protection Bureau
	Mr. Shi Di	Project Manager	LongYuan Power Group Energy Sale Co., LTD

APPENDIX C: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Mr. Dezheng TONG

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

Qualification						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	√	√	√	√	-	√

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 8: Mining/mineral production	TA 8.1: Mining/mineral production
SS 10: Fugitive emissions from fuels (solid, oil and gas)	TA 10.1: Fugitive emissions from oil and gas

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu Lin

Wu LIN

Technical Competent Manager

Shenzhen, 01/07/2019

Ms. Shunrong LIN

Satisfies the requirements of competence management system of CTI Certification, and is hereby appointed as:

Qualification						
Status	GHG Auditor	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date	√	√	√	√	√	√

Scope	Technical Area
SS 1: Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources
SS 14: Afforestation and reforestation	TA 14.1: Afforestation and reforestation
SS 15: Agriculture	TA 15.1: Agriculture

This appointment is valid for 3 years from its date of approval below and is bound by internal requirements of management system of the Certification Body of CTI.

Approved by:

Wu Lin

Wu LIN

Technical Competent Manager

Shenzhen, 01/01/2021

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

Table 1: Corrective Action Requests

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

Table 2: Clarification Requests

CL ID	Clarification Request	Response by Project Proponent	Verification Team Assessment
CL 01	The type of the wind turbine is missing in MR (V01 dated 23/05/2022).	The type of the wind turbine has been added in the updated MR.	OK. It has been revised and verified by CTI by checking updated MR. Therefore, CL 01 is closed.
CL 02	Type of electricity meters is missing in MR (V01 dated 23/05/2022).	The type of meters has been added in the updated MR.	OK. It has been revised and verified by CTI by checking updated MR. Therefore, CL 02 is closed.

Table 3: Forward Action Requests

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