



VCS VERIFICATION REPORT

GUAZHOU BEIDAQIAO NO.1 WIND FARM PROJECT IN GANSU PROVINCE, CHINA

(VCS PROJECT ID: 1037)



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 "Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China" (VCS Project ID: 1037) for the monitoring period 29/06/2012 to 31/12/2017, 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 4.1.

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 no CAR, CL or FAR in this monitoring period.

In CTI's opinion, the GHG emission reductions reported for the project in the monitoring report (version 02 dated 30/03/2022) are fairly stated. The GHG emission reductions of the period from 29/06/2012 to 31/12/2017 were calculated correctly on the basis of approved methodology ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources" (version 12.1.0).

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 "Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China" during the period amount to 1,368,760 tCO₂e.

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1 INTRODUCTION

Beijing MD Energy Technology Co., Ltd. has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the verification and certification of emission reductions reported for the “Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China” (the project) for the period 29/06/2012 to 31/12/2017. 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 “Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China” for the period 29/06/2012 to 31/12/2017.

1.2 Scope and Criteria

The scope of the verification is:

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

The criteria of the verification are:

- VCS Program Guide (version 4.0) /30/
- VCS Standard (version 4.1) /29/ and other relevant requirements defined by Verra;
- The approved methodology ACM0002 (version 12.1.0) /32/ 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 1% (for large projects with ER larger than 300,000 tCO₂e per year) with respect to emission or misstatements concerning reported quantities as per VCS standard (i.e. para 3.9.1 and 4.1.8 (4) of VCS Standard, v4.1).

1.4 Summary Description of the Project

Sectoral Scope and Project Type

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

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

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

Project Background

Project title:	Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China
Project proponent:	Hydrochina Guazhou Wind Power Co., Ltd. (China)
Project location:	Guazhou County, Jiuquan City, Gansu Province, P. R. China
VCS Project ID:	1037
Applied methodology:	ACM0002 version 12.1.0
VCS project crediting period:	03/01/2011 to 02/01/2021 (the first VCS crediting period)
VCU verification period:	29/06/2012 to 31/12/2017

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 registered VCS PD, the applied methodology, and the VCS Standard (version 4.1) and other relevant VCS requirements:

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

The following sections outline each step in more detail.

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

- The emission reduction calculations and the relevant data records;
- The calibration and maintenance records for the monitoring instruments;
- The management systems to support the project operation and monitoring.

2.2 Document Review

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

Function	Name	Technical competence	Task Performance*
Team Leader	Wang Guolian	1.2	☒ DR ☒ SV ☒ RP ☐ TR
Technical Reviewer	Lin Shunrong	1.2	☒ DR ☐ SV ☐ RP ☒ TR

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

In addition to the VER/VCU monitoring report /1/, revised CDM PDD (version 4.0 dated 09/10/2012) /10/, registered VCS PD (version 02 dated 30/11/2012) /24/, registered CDM PDD (version 3.0 dated 08/06/2011) /11/ and emission reduction calculation spreadsheet /2/, the following documents also were assessed as a part of the verification audit:

- Validation Opinion of revised CDM PDD /16/;
- Validation Report of registered CDM PDD /17/;
- VCS Monitoring Report of previous monitoring period /22/;

- VCS Verification Report of previous monitoring period /23/;
- Baseline and monitoring methodology ACM0002 applied by the project /32/;
- Relevant decisions, clarifications and guidance from the Verra /29/-/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 30/12/2021, CTI visited Hydrochina Guazhou Wind Power Co., Ltd. performed on-site assessment. The key personnel of the project were interviewed or assisted the verification team /33/. 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 /33/ are summarized in the table below:

Interviewed personnel	Role	Organization	Subject
Mr. Yang Fubin	Director of the plant	Hydrochina Guazhou 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;
Mr. Pan Xiaoyu	Vice Director of the plant	Hydrochina Guazhou Wind Power Co., Ltd.	
Mr. Wang Chao	Director of Production & Technology Department	Hydrochina Guazhou Wind Power Co., Ltd.	
Ms. Zhang Xiaolan	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.
Ms. Wang Hui			
Ms. Li Mengtong			
Mr. You Yusheng	Staff	Local Environment Protection Bureau	
Ms. Zhang Ling	Project Manager	Hydrochina Guazhou Wind Power Co., Ltd.	Data collection and ER calculation.

2.4 Site Inspections

The verification team performed the on-site verification (Guazhou County, Jiuquan City, Gansu Province, P. R. China) on 30/12/2021. The interviewed personnel and objective are listed in above table. 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 in registered VCS PD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and electricity sale receipts;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the monitoring plan in 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.

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 Hydrochina Guazhou Wind Power 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 12.1.0), 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 no CL or CAR in this monitoring period.

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

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

2.6 Eligibility for Validation Activities

The registered CDM PDD was validated by ERM Certification and Verification Services Ltd on 28/09/2011 /17/. The revised CDM PDD of the project activity was validated by Bureau Veritas Certification Holding SAS on 26/10/2012 /16/. The initial VCS verification was carried out by Bureau Veritas Certification Holding SAS on 03/12/2012 against Voluntary Carbon Standard version 3 /23/. 1 periodic verification was carried out by Bureau Veritas Certification Holding SAS on 26/10/2012 under CDM scheme. The proposed VCS monitoring period 29/06/2012 to 31/12/2017 is 2nd VCS verification,

CTI just undertook verification activities for the project according to the VCS Program Guide. This section is thus not applicable.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The registered CDM PDD of the project activity was validated by ERM Certification and Verification Services Ltd on 28/09/2011 /17/. The revised CDM PDD of the project activity was validated by Bureau Veritas Certification Holding SAS on 26/10/2012 /16/. CTI only performed verification activities on the proposed monitoring period for the project according to the VCS Program Guide.

3.2 Methodology Deviations

The validation process /16/ /17/ 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) /32/. Therefore, it is confirmed that there was no deviation for methodology.

3.3 Project Description Deviations

The project was registered under CDM scheme on 29/09/2011 (UNFCCC ID. 4254). By checking UNFCCC website (<https://cdm.unfccc.int/Projects/DB/ERM-CVS1292512044.7/view>), the verification team confirmed that for the project activity, the first CDM crediting period is from 29/09/2011 to 28/09/2018. As per relevant CDM standard, the crediting period of the project could be renewed twice.

By checking UNFCCC website, it was confirmed that the project activity was registered as CDM project activity on 29/09/2011. The project was registered under VCS scheme (VCS version 3). By checking Monitoring Report of initial VCS monitoring period, it was mentioned that the project started operation since 03/01/2011 and the VCS crediting period is from 03/01/2011 to 28/09/2011.

As per VCS version 3 under which the project was registered, the project crediting period is allowable for 10 years and could be renewed twice. Considering 3*7 years CDM crediting period started from 29/09/2011, it is reasonable that the total VCS crediting period was determined from 03/01/2011 to 28/09/2032, of which the first VCS crediting period is from 03/01/2011 to 02/01/2021. This deviation has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

Furthermore, as per revised CDM PDD, the accuracy of the meter M_{21} is changed from 0.5 to 1.0, which has been approved by CDM EB on 15/01/2013. As per the validation opinion of revised CDM PDD

/16/, the revised CDM PDD specified that the differences between the electricity meters accuracy will be applied in determination of the electricity imported via the backup line. The net electricity will be determined by the following formula:

$$EG_{\text{facility},y} = EG_{\text{export},y} - EG_{\text{import1},y} - EG_{\text{import2},y} \times (1+0.5\%)$$

As per the validation opinion of revised CDM PDD /16/, this revisions ensure that the level of accuracy and completeness in the monitoring and verification process is not reduced as a result of the revision. Furthermore, this deviation has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

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 “Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China” for the period 29/06/2012 to 31/12/2017.

4.1 Project Implementation Status

Project Implementation in accordance with the approved project design document

The project is a grid-connected wind power plant, which is located in Guazhou County, Jiuquan City, Gansu Province, P. R. China. The project activity installed 134 sets of 1.5 MW wind turbine-generator with a total installed capacity 201 MW. The 67 sets of wind turbines model SL1500/77 are manufactured by Sinovel Wind Technology Co., Ltd, and the other 67 sets of wind turbines model GW77/1500 are manufactured by Xinjiang Goldwind Technology Co., Ltd.

The average annual power delivered to the grid by the project is expected to be 461,464 MWh and the estimated emission reductions of the project activity is 428,829 tCO₂e per year. The actual implementation of the project during this monitoring period was verified in terms of name plate capacities of each wind turbine and monitoring equipment. The details of the wind turbines with respect to installation and capacity have been verified to be consistent with description indicated in the registered VCS PD. The commissioning the project activity was 03/01/2011, which was verified by site visit interview, checking verification reports of previous monitoring periods /23/. The electricity generated by the project activity was supplied to the Northwest China Power Grid (NWPG), which can be confirmed by the Power Purchase Agreement (PPA) signed between Hydrochina Guazhou Wind Power Co., Ltd. and State Grid Gansu Electric Power Company /3/.

The project start date was identified as 03/01/2011 when the wind turbines started to operate and began generating GHG emission reductions. The first VCS crediting period of the project is from 03/01/2011 to 02/01/2021. The selected monitoring period is from 29/06/2012 to 31/12/2017, which is within the first VCS crediting period.

All the monitoring system in operation period is consistent with 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 Operation Log /6/, CTI was able to 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 /5/ and their implementation was confirmed by interview with the key operators /33/ and observing the operation.

Except the deviation mentioned above, CTI confirmed during site visit that the project implementation is in accordance with registered VCS PD (version 02 dated 30/11/2012). And the verification team confirmed through visual inspection and document review that all physical features of the proposed project activity including data collection systems and storage systems have been implemented in accordance with the registered VCS PD (version 02 dated 30/11/2012).

Compliance of monitoring plan with monitoring methodology

The verification team is able to confirm that the monitoring plan in the registered VCS PD (version 02 dated 30/11/2012) is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 12.1.0). Therefore, the verification team is able to confirm that the monitoring plan 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 registered VCS PD (version 02 dated 30/11/2012). 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, aggregation, recording, calculation and reporting) for these parameters is provided. The information flow for the each parameter is further verified in the following sections.

Parameters monitored

According to the monitoring plan contained in the registered VCS PD (version 02 dated 30/11/2012), there are 1 monitoring parameter of the project:

Net electricity supplied to NWPG by the proposed project in year y ($EG_{\text{facility},y}$)

By site interview and checking the monitoring plan contained in the registered VCS PD (version 02 dated 30/11/2012) and verification reports, CTI confirmed $EG_{\text{facility},y}$ is calculated using equation:

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

$$EG_{\text{import},y} = EG_{\text{import}1,y} + EG_{\text{import}2,y} \times (1+0.5\%)$$

Where

$EG_{\text{export},y}$ is Electricity supplied by the project activity to the grid in year y;

$EG_{\text{import},y}$ is Electricity imported from the grid by the project in year y;

$EG_{\text{import}1,y}$ is Electricity imported from the grid through the main meter to the project;

$EG_{\text{import}2,y}$ is Electricity imported from the grid through the backup line to the project.

Electricity supplied by the project activity to the grid in year y ($EG_{\text{export},y}$)

By site interview and checking the monitoring plan contained in the registered VCS PD (version 02 dated 30/11/2012) and verification reports of previous monitoring period, it is confirmed that $EG_{\text{export},y}$ is continuously measured by main meter M_{11} and backup meter M_{12} installed at the 330kV West Beidaqiao Substation. When main meter M_{11} is not working, readings of back up meter M_{12} will be used to calculate the emission reductions. By checking the operation log /6/ of this monitoring period, main meter M_{11} is working well during this monitoring period. The meter reading was recorded monthly and archived electronically. In this monitoring period, the cut-off time was 24:00 hr of last day of each month. At the cut-off time, the staff from project developer and the grid company read the electricity meters together. The project developer record electricity meter readings and form Monthly Reading Records (MRRs) /7/. The staff from power grid company record electricity meter readings and then transcribes the data into Electricity Receipts /8/. $EG_{\text{export},y}$ was sourced from Meter Reading Records (MRRs) /7/ issued by the project developer and Electricity Receipts /8/ issued by power grid company covering monitoring period.

Electricity imported from the grid through the main meter to the project ($EG_{\text{import}1,y}$)

By site interview and checking the monitoring plan contained in the registered VCS PD (version 02 dated 30/11/2012) and verification reports of previous monitoring period, it is confirmed that $EG_{\text{import}1,y}$ is continuously measured by main meter M_{11} and backup meter M_{12} installed at the 330kV West Beidaqiao Substation. When main meter M_{11} is not working, readings of back up meter M_{12} will be used to calculate the emission reductions. By checking the operation log /6/ of this monitoring period, main meter M_{11} is working well during this monitoring period. The meter reading was recorded monthly and archived electronically. In this monitoring period, the cut-off time was 24:00 hr of last day of each month. At the cut-off time, the staff from project developer and the grid company read the electricity meters together. The project developer record electricity meter readings and form Monthly Reading Records (MRRs) /7/. The staff from power grid company record electricity meter readings and then transcribes the data into Electricity Receipts /9/. $EG_{\text{import}1,y}$ was sourced from Meter Reading Records (MRRs) /7/ issued by the project developer, and Electricity Receipts /9/ issued by power grid company covering monitoring period.

Electricity imported from the grid through the backup line to the project ($EG_{\text{import}2,y}$)

By site interview and checking the monitoring plan contained in the registered VCS PD (version 02 dated 30/11/2012) and verification reports of previous monitoring period, it is confirmed that $EG_{\text{import}2,y}$ is continuously measured by meter M_{21} installed at the project site. By checking operation log /6/ and Monthly Reading Records (MRRs) /7/, it is confirmed that in this monitoring period no electricity was imported by the project via the backup line.

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 Electricity Receipts. 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 meters have been calibrated periodically as per the relevant industrial standard by the qualified third party to ensure the monitoring equipments' accuracy and in good conditions. The relevant information of meters' calibration is listed as below.

Meter No.	Type	Serial No.	Accuracy	Calibration Date	Valid Date
M ₁₁ (main meter)	SL7000	57036843	0.2S	29/03/2012	28/03/2013
				27/03/2013	26/03/2014
				23/03/2014	22/03/2015
				23/03/2015	22/03/2016
				23/03/2016	22/03/2017
				23/03/2017	22/03/2018
M ₁₂ (backup meter)	SL7000	57036839	0.2S	29/03/2012	28/03/2013
				27/03/2013	26/03/2014
				23/03/2014	22/03/2015
				23/03/2015	22/03/2016
				23/03/2016	22/03/2017
				23/03/2017	22/03/2018
M ₂₁	/	1000759046	1.0	17/02/2012	16/02/2013
				12/02/2013	11/02/2014
				08/02/2014	07/02/2015
				08/07/2014	07/07/2015
				08/07/2015	07/07/2016
				08/07/2016	07/07/2017

The meters were calibrated by Electric Energy measurement Center Gansu Electric Power Corporation. Calibration records and accreditation certificates /12//13/ have been verified by the verification team. The accuracy of all meters are comply with that in the monitoring plan of the registered VCS PD (version 02 dated 30/11/2012). By checking the industrial metering configuration standard "Technical Administrative Code of Electric Energy Metering (DL/T 448-2000)" /15/, CTI can confirm that the accuracy level of all meters meet the requirement stipulated in this standard. In conclusion, the verification team can confirm that the accuracy of the meters is in line with monitoring plan of the registered VCS PD (version 02 dated 30/11/2012) and relevant industry standard.

In the monitoring plan of the registered VCS PD (version 02 dated 30/11/2012), it stated that the meters will be calibrated and checked annually for accuracy. By checking the calibration reports, the verification team found the calibration frequency of these meters is annual, which is in line with the calibrating standard "Technical Administrative Code of Electric Energy Metering (DL/T 448-2000)" /15/. Hence, the verification team can confirm that the meters' calibration frequency is in line with

monitoring plan of the registered VCS PD (version 02 dated 30/11/2012) and relevant industry standard, and the calibrations of meters are verified to be valid for the whole reporting period.

Data management and control

Hydrochina Guazhou 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 VER project management and monitoring manual /4/, including the organization structure with the responsibilities, personnel competencies, monitoring procedures and monitoring management. By interview with the staff /33/ and check records /4/-/6/ 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.

Other GHG program(s)

By checking UNFCCC website (<https://cdm.unfccc.int/Projects/DB/ERM-CVS1292512044.7/view>), it is confirmed by CTI that the project has been registered as CDM project activity on 29/09/2011 with reference No. 4254. GHG emission reductions of 197,617 tCO₂ have been issued as CERs from 29/09/2011 - 28/06/2012 under CDM scheme. There are no CDM issuance during this monitoring period. Furthermore, CTI checked public information from the REC Mechanism database of China, Chinese Emission Trading System, Gold Standard Registry and interviewed with project owner during site visit, it is confirmed that except CDM and VCS scheme, the project has not been participated or been rejected under any other GHG programs since validation or previous verification.

Therefore, the verification team confirmed that the project only applies CERs and VCUs under CDM and VCS, and no rejection from CDM and VCS occurs, there are no other forms of environmental credits applied or issued for the project activity, the emission reduction resulted from the project during this monitoring period would only apply for VCUs.

Other forms of credit

- Emissions trading programs and other binding limits

The verification team confirms that the Net GHG emission reductions or removals generated by the Project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions in any Emission Trading program or other binding limits. The verification team checked the REC Mechanism database of China, Chinese Emission Trading System (Chinese ETS) and Chinese Certified Emission Reduction Mechanism, and found that the project activity is not accredited / registered under REC mechanism, Chinese ETS, or CCER mechanism. Also, CCER mechanism is currently suspended by Chinese government, the project activity will not and is not allowed to

registered under CCER mechanism. Thus, the assessment team concluded that the project activity not involved on other emissions trading programs and other binding limits.

Furthermore, as per “Notice on Strengthening Enterprise Greenhouse Gas Emission Report Management” /27/ issued by National Development and Reform Committee of P.R.China, China has a national emissions trading scheme only cover the high-emission industries, including thermal power generation, petrochemical, chemical, building materials, iron and steel, non-ferrous, paper, aviation and other key emission industries that emitted at least 26,000 tons of CO₂e/year. By checking “List of key emissions in the national carbon emissions transaction quota management in 2019-2020” /28/ issued by Ministry of Ecology and Environment of P.R.China, the project activity is not included in the mandatory emission control scheme and thus no emission cap was enforced for the project activity.

- Other forms of environmental credit sought or received and eligible to be sought or received

The Project has no intend to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program.

Renewable energy certificates are available for trading in the host country. However, the same is not availed by the project proponent. The undertaking regarding the same is submitted by PP which is acceptable to the verification team. The verification team also checked the REC website and found the declaration to be correct.

By checking the registered VCS PD (version 02 dated 30/11/2012), China’s National Plan on Implementation of the 2030 Agenda for Sustainable Development and 17 SDGs defined by UNDP, and interviewing with stakeholders during site visit, the verification team confirmed that the project would contribute to sustainable development in as below:

- SDG 13: Reducing greenhouse gas emissions compared to a business-as-usual scenario;
- SDG 7: Providing clean and renewable energy source and displacing the power generation of fossil fuel power plants, reducing pollution emissions caused by coal burning significantly, thus mitigating the air pollution and its adverse impacts on human health, promoting sustainable economic development in local area;
- SDG 8: Providing direct and indirect employment opportunities during construction and operation period and increasing power supply to alleviate power shortage in China, which promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for local residents.

The technical parameters have been verified with the nameplates /14/ as below:

Parameter of Turbines	Unit	Value	
Type	/	SL1500/77	GW77/1500
Quantity of Turbine	/	67	67

Rated Power	kW	1500	1500
Cut-in Wind Speed	m/s	3.0	3.0
Cut-out Wind Speed	m/s	20.0	22.0
Rated Wind Speed	m/s	11.0	11.5
Rated Voltage	V	690	690

The verification team confirmed that there is no proposed or actual change to monitoring plan of the registered VCS PD (version 02 dated 30/11/2012) during this monitoring period. All required equipments and procedures are available and implemented in an appropriate manner. All necessary monitoring instruments are installed. All required instruments including standby and operating procedures for the same have been implemented in an appropriate manner. 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

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

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

4.2.2 Local Stakeholder Consultation

As per the registered VCS PD (version 02 dated 30/11/2012), on 28/04/2009, stakeholder consultation was conducted in local area. A survey was arranged through a one-page questionnaire, which was designed to be easily filled in. In total 30 out of 30 questionnaires were returned with a 100% response rate. 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.

For continuous communication with local stakeholders, the project owner public its office telephone to local people and put a grievance book /21/ in the office of the company and some nearby villages. Via

checking the grievance book, It is confirmed by the verification team that no comments were received. Through interviewing with staff from local environmental protection bureau and local residents during the site visit, it is confirmed by the verification team that during the implementation stage of this monitoring period, local authority has conducted spot checks on the implementation of the project periodically as per the request from the local governments' regulations, no negative comments and issues from the local stakeholders during this monitoring period were identified and the project passed all the periodic spot checks by local government.

All such conclusion has been verified through site visit and check registered 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:

$$ER_y = BE_y - PE_y$$

Baseline emissions

Baseline reductions are determined as multiplying Net electricity supplied to NWPG by the proposed project in 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 registered VCS PD (version 02 dated 30/11/2012) as 0.92928 tCO₂e/MWh for the crediting period.

Net electricity supplied to NWPG by the proposed project in year y ($EG_{\text{facility},y}$)

$EG_{\text{facility},y}$ is calculated by following formula:

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

$$EG_{\text{import},y} = EG_{\text{import}1,y} + EG_{\text{import}2,y} \times (1+0.5\%)$$

Data in the Monthly Reading Records (MRRs) and Electricity receipts are used to calculate $EG_{\text{facility},y}$ as follows:

Monitoring period		EG _{export,y} (MWh)			EG _{import,y} (MWh)				EG _{facility,y} (MWh)	Emission reductions (ERy)
					EG _{import1,y} (MWh)			EG _{import2,y} (MWh)		
from	to	meter reading records from main meter	electricity sales receipts	Data used for ER calculation	meter reading records from main meter	electricity sales receipts	Data used for ER calculation	Data used for ER calculation	(MWh)	(tCO ₂ e)
29/06/2012	30/06/2012	2272.160	2272.160	2272.160	0.000	0.000	0.000	0.000	2272.160	2111
01/07/2012	31/07/2012	25927.440	25927.440	25927.440	110.880	110.880	110.880	0.000	25816.560	23990
01/08/2012	31/08/2012	21735.120	21735.120	21735.120	129.360	129.360	129.360	0.000	21605.760	20077
01/09/2012	30/09/2012	31978.320	31978.320	31978.320	97.680	97.680	97.680	0.000	31880.640	29626
01/10/2012	31/10/2012	22532.400	22532.400	22532.400	168.960	168.960	168.960	0.000	22363.440	20781
01/11/2012	30/11/2012	19631.040	19631.040	19631.040	221.760	221.760	221.760	0.000	19409.280	18036
01/12/2012	31/12/2012	17212.800	17212.800	17212.800	300.960	300.960	300.960	0.000	16911.840	15715
Sub Total		141289.280	141289.280	141289.280	1029.600	1029.600	1029.600	0.000	140259.680	130336
01/01/2013	31/01/2013	17806.800	17806.800	17806.800	398.640	398.640	398.640	0.000	17408.160	16177
01/02/2013	28/02/2013	25980.240	25980.240	25980.240	150.480	150.480	150.480	0.000	25829.760	24003
01/03/2013	31/03/2013	27640.800	27640.800	27640.800	147.840	147.840	147.840	0.000	27492.960	25548
01/04/2013	30/04/2013	18403.440	18403.440	18403.440	75.560	75.560	75.560	0.000	18327.880	17031
01/05/2013	31/05/2013	40257.360	40257.360	40257.360	73.920	73.920	73.920	0.000	40183.440	37341
01/06/2013	30/06/2013	37279.440	37279.440	37279.440	81.840	81.840	81.840	0.000	37197.600	34566
01/07/2013	31/07/2013	29322.480	29322.480	29322.480	110.880	110.880	110.880	0.000	29211.600	27145
01/08/2013	31/08/2013	49874.880	49874.880	49874.880	81.840	81.840	81.840	0.000	49793.040	46271
01/09/2013	30/09/2013	34919.280	34919.280	34919.280	76.560	76.560	76.560	0.000	34842.720	32378
01/10/2013	31/10/2013	37781.040	37781.040	37781.040	168.960	168.960	168.960	0.000	37612.080	34952
01/11/2013	30/11/2013	24008.160	24008.160	24008.160	274.560	274.560	274.560	0.000	23733.600	22055

01/12/2013	31/12/2013	16407.600	16407.600	16407.600	216.480	216.480	216.480	0.000	16191.120	15046
Sub Total		359681.520	359681.520	359681.520	1857.560	1857.560	1857.560	0.000	357823.960	332513
01/01/2014	31/01/2014	11766.480	11766.480	11766.480	295.680	295.680	295.680	0.000	11470.800	10659
01/02/2014	28/02/2014	32714.880	32714.880	32714.880	155.760	155.760	155.760	0.000	32559.120	30256
01/03/2014	31/03/2014	32450.880	32450.880	32450.880	142.560	142.560	142.560	0.000	32308.320	30023
01/04/2014	30/04/2014	33285.120	33285.120	33285.120	87.120	87.120	87.120	0.000	33198.000	30850
01/05/2014	31/05/2014	33530.640	33530.640	33530.640	92.400	92.400	92.400	0.000	33438.240	31073
01/06/2014	30/06/2014	34531.200	34531.200	34531.200	68.640	68.640	68.640	0.000	34462.560	32025
01/07/2014	31/07/2014	30629.280	30629.280	30629.280	66.000	66.000	66.000	0.000	30563.280	28401
01/08/2014	31/08/2014	45027.840	45027.840	45027.840	44.880	44.880	44.880	0.000	44982.960	41801
01/09/2014	30/09/2014	19522.800	19522.800	19522.800	105.600	105.600	105.600	0.000	19417.200	18044
01/10/2014	31/10/2014	12957.120	12957.120	12957.120	124.080	124.080	124.080	0.000	12833.040	11925
01/11/2014	30/11/2014	7579.440	7579.440	7579.440	182.160	182.160	182.160	0.000	7397.280	6874
01/12/2014	31/12/2014	11156.640	11156.640	11156.640	216.480	216.480	216.480	0.000	10940.160	10166
Sub Total		305152.320	305152.320	305152.320	1581.360	1581.360	1581.360	0.000	303570.960	282097
01/01/2015	31/01/2015	16201.680	16201.680	16201.680	216.480	216.480	216.480	0.000	15985.200	14854
01/02/2015	28/02/2015	18949.920	18949.920	18949.920	124.080	124.080	124.080	0.000	18825.840	17494
01/03/2015	31/03/2015	20486.400	20486.400	20486.400	84.480	84.480	84.480	0.000	20401.920	18959
01/04/2015	30/04/2015	25304.400	25304.400	25304.400	55.440	55.440	55.440	0.000	25248.960	23463
01/05/2015	31/05/2015	21056.640	21056.640	21056.640	71.280	71.280	71.280	0.000	20985.360	19501
01/06/2015	30/06/2015	25307.040	25307.040	25307.040	50.160	50.160	50.160	0.000	25256.880	23470
01/07/2015	31/07/2015	14688.960	14688.960	14688.960	58.080	58.080	58.080	0.000	14630.880	13596
01/08/2015	31/08/2015	29338.320	29338.320	29338.320	39.600	39.600	39.600	0.000	29298.720	27226
01/09/2015	30/09/2015	15016.320	15016.320	15016.320	87.120	87.120	87.120	0.000	14929.200	13873

01/10/2015	31/10/2015	15003.499	15003.499	15003.499	95.040	95.040	95.040	0.000	14908.459	13854
01/11/2015	30/11/2015	11816.640	11816.640	11816.640	182.160	182.160	182.160	0.000	11634.480	10811
01/12/2015	31/12/2015	7518.720	7518.720	7518.720	311.460	311.460	311.460	0.000	7207.260	6697
Sub Total		220688.539	220688.539	220688.539	1375.380	1375.380	1375.380	0.000	219313.159	203798
01/01/2016	31/01/2016	19401.360	19401.360	19401.360	211.200	211.200	211.200	0.000	19190.160	17833
01/02/2016	29/02/2016	14741.760	14741.760	14741.760	166.320	166.320	166.320	0.000	14575.440	13544
01/03/2016	31/03/2016	14942.400	14942.400	14942.400	100.320	100.320	100.320	0.000	14842.080	13792
01/04/2016	30/04/2016	22569.360	22569.360	22569.360	60.720	60.720	60.720	0.000	22508.640	20916
01/05/2016	31/05/2016	19887.120	19887.120	19887.120	100.320	100.320	100.320	0.000	19786.800	18387
01/06/2016	30/06/2016	20177.520	20177.520	20177.520	71.280	71.280	71.280	0.000	20106.240	18684
01/07/2016	31/07/2016	17484.720	17484.720	17484.720	71.280	71.280	71.280	0.000	17413.440	16181
01/08/2016	31/08/2016	26545.200	26545.200	26545.200	55.440	55.440	55.440	0.000	26489.760	24616
01/09/2016	30/09/2016	16302.000	16302.000	16302.000	95.040	95.040	95.040	0.000	16206.960	15060
01/10/2016	31/10/2016	14691.600	14691.600	14691.600	116.160	116.160	116.160	0.000	14575.440	13544
01/11/2016	30/11/2016	4535.520	4535.520	4535.520	195.360	195.360	195.360	0.000	4340.160	4033
01/12/2016	31/12/2016	4094.601	4094.601	4094.601	259.350	259.350	259.350	0.000	3835.251	3564
Sub Total		195373.161	195373.161	195373.161	1502.790	1502.790	1502.790	0.000	193870.371	180154
01/01/2017	31/01/2017	7978.344	7978.344	7978.344	316.800	316.800	316.800	0.000	7661.544	7119
01/02/2017	28/02/2017	14379.816	14379.816	14379.816	155.760	155.760	155.760	0.000	14224.056	13218
01/03/2017	31/03/2017	32073.360	32073.360	32073.360	55.440	55.440	55.440	0.000	32017.920	29753
01/04/2017	30/04/2017	20549.760	20549.760	20549.760	66.000	66.000	66.000	0.000	20483.760	19035
01/05/2017	31/05/2017	30877.440	30877.440	30877.440	36.960	36.960	36.960	0.000	30840.480	28659
01/06/2017	30/06/2017	14472.480	14472.480	14472.480	44.880	44.880	44.880	0.000	14427.600	13407
01/07/2017	31/07/2017	20708.160	20708.160	20708.160	66.000	66.000	66.000	0.000	20642.160	19182

01/08/2017	31/08/2017	25935.360	25935.360	25935.360	87.120	87.120	87.120	0.000	25848.240	24020
01/09/2017	30/09/2017	27968.424	27968.424	27968.424	105.600	105.600	105.600	0.000	27862.824	25892
01/10/2017	31/10/2017	26985.816	26985.816	26985.816	116.160	116.160	116.160	0.000	26869.656	24969
01/11/2017	30/11/2017	12595.440	12595.440	12595.440	229.680	229.680	229.680	0.000	12365.760	11491
01/12/2017	31/12/2017	25053.600	25053.600	25053.600	176.880	176.880	176.880	0.000	24876.720	23117
Sub Total		259578.000	259578.000	259578.000	1457.280	1457.280	1457.280	0.000	258120.720	239862
total		1481762.820	1481762.820	1481762.820	8803.970	8803.970	8803.970	0.000	1472958.850	1368760

Based on the values of monitored parameters in the above table, the emission reductions are calculated as follows:

Period	EG _{facility,y} (MWh)	EF _{grid,CM,y} (tCO ₂ /yr)	Baseline Emissions (tCO ₂ e)
2012/06/29-2012/12/31	140,259.680	0.92928	130,336
2013/01/01-2013/12/31	357,823.960		332,513
2014/01/01-2014/12/31	303,570.960		282,097
2015/01/01-2015/12/31	219,313.159		203,798
2016/01/01-2016/12/31	193,870.371		180,154
2017/01/01-2017/12/31	258,120.720		239,862
Total	1,472,958.850	/	1,368,760

*By checking the statement from local power grid company /25/, the verification team verified that Electricity supplied by the project activity to the grid and Electricity imported from the grid through the main meter to the project for the period from 29/06/2012 to 30/06/2012 has been confirm by local Grid company.

Hence, the corresponding baseline emission reductions are calculated as:

$$BE_y = EG_{facility,y} \times EF_{grid,CM,y} = 1,472,958.850 \times 0.92928 = 1,368,760 \text{ tCO}_2\text{e}$$

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 Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China is zero.

Leakages

Leakage does not need to be accounted for this project as per the registered VCS PD.

Emission reductions

The emission reductions for this monitoring period was calculated as:

Monitoring period	GHG emission reductions or removals (tCO ₂ e)
2012/06/29-2012/12/31	130,336
2013/01/01-2013/12/31	332,513
2014/01/01-2014/12/31	282,097
2015/01/01-2015/12/31	203,798

2016/01/01-2016/12/31	180,154
2017/01/01-2017/12/31	239,862
Total ERs claimed (in 2012 days)	1,368,760

Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in the registered VCS PD

The emission reductions claimed are 1,368,760 tCO₂e in this monitoring period (i.e. 2012 days). Compared with expected emission reductions 2,363,846 tCO₂e (calculated as 428,829*2012d/365d) in the registered VCS PD, the reported emission reductions in this monitoring period are 42.09% less than the expected, which will not cause the over estimation of the emission reductions. By statistic data /26/ which is public available, it is confirmed that the difference is due to high wind abandonment rate caused by insufficient electricity demand or insufficient grid receiving capacity in local area.

Therefore, 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 “Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China” in China (VCS Project ID: 1037) for the period 29/06/2012 to 31/12/2017.

The verification is based on the baseline and monitoring methodology ACM0002 (version 12.1.0), registered VCS PD (version 02 dated 30/11/2012). 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 4.1 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 in registered registered VCS PD is as per the applied methodology;
- the monitoring complies with the monitoring plan in the registered VCS PD;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Version 4.1 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 "Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China" for the period 29/06/2012 to 31/12/2017 are fairly stated in the monitoring report (version 02 dated 30/03/2022). 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 (version 02 dated 30/11/2012).

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:

Verification period: From 29/06/2012 to 31/12/2017

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

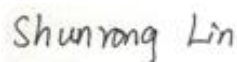
Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2012/06/29-2012/12/31	130,336	0	0	130,336
2013/01/01-2013/12/31	332,513	0	0	332,513
2014/01/01-2014/12/31	282,097	0	0	282,097
2015/01/01-2015/12/31	203,798	0	0	203,798
2016/01/01-2016/12/31	180,154	0	0	180,154
2017/01/01-2017/12/31	239,862	0	0	239,862
Total	1,368,760	0	0	1,368,760



Ms. Wang Guolian

Team Leader

28/04/2022



Ms. Lin Shunrong

Technical Reviewer

28/04/2022

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EF	Emission Factor
ER	Emission Reduction
ETN	Electricity Transaction Note
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
MP	MONITORING REPORT
MR	Monitoring Report
NWPG	Northwest China Power Grid
PD	Project Description
PP	Project Proponent
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCES

Documentation used to verify the information provided by the project proponents

- /1/ Beijing MD Energy Technology Co., Ltd.: VER/VCU Monitoring Report for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China, version 01 dated 20/12/2021, version 01.1 dated 06/01/2022, version 02 dated 30/03/2022
- /2/ Beijing MD Energy Technology Co., Ltd.: Emission reduction calculation spreadsheet for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China
- /3/ Hydrochina Guazhou Wind Power Co., Ltd. and State Grid Gansu Electric Power Company: Power Purchase Agreement for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China.
- /4/ Hydrochina Guazhou Wind Power Co., Ltd.: VER monitoring manual and management procedure.
- /5/ Hydrochina Guazhou Wind Power Co., Ltd.: Records of training for on-site staff.
- /6/ Hydrochina Guazhou Wind Power Co., Ltd.: Operation log sheets, from 29/06/2012 to 31/12/2017.
- /7/ Hydrochina Guazhou Wind Power Co., Ltd.: Monthly reading records (MRRs) of Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China from 29/06/2012 to 31/12/2017.
- /8/ Gansu Power Grid Company: Electricity Receipts of Electricity supplied by the project activity to the grid from 29/06/2012 to 31/12/2017.
- /9/ Gansu Power Grid Company: Electricity Receipts of Electricity imported from the grid through the main meter to the project from 29/06/2012 to 31/12/2017.
- /10/ UNFCCC website: revised CDM PDD, version 4.0 dated 09/10/2012.
- /11/ UNFCCC website: Registered CDM PDD version 3.0 dated 08/06/2011.
- /12/ Gansu Quality and Technical Supervision Bureau: Accreditation certificate of Electric Energy measurement Center Gansu Electric Power Corporation valid till 28/09/2022.
- /13/ Electric Energy measurement Center Gansu Electric Power Corporation: Calibration certificates for meters covering this monitoring period.
- /14/ Hydrochina Guazhou Wind Power Co., Ltd.: nameplate of the equipment
- /15/ State Economic and Trade Commission: Technical administrative code of electric energy

- metering (DL/T 448-2000).
- /16/ Bureau Veritas Certification Holding SAS: Validation Opinion of revised CDM PDD, version 01 dated 26/10/2012
 - /17/ ERM Certification and Verification Services Ltd: the Validation Report of registered CDM PDD, Version 02 dated 28/09/2011
 - /18/ UNFCCC website: CDM Monitoring Report for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China of previous monitoring period from 29/09/2011 to 28/06/2012
 - /19/ UNFCCC website: CDM Verification Report for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China of previous monitoring period from 29/09/2011 to 28/06/2012
 - /20/ Business License of Hydrochina Guazhou Wind Power Co., Ltd.
 - /21/ Photo of grievance book to collect comments about project implementation from local stakeholders
 - /22/ VERRA website: VCS Monitoring Report for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China of previous monitoring period from 03/01/2011 to 28/09/2011
 - /23/ VERRA website: VCS Verification Report for Guazhou Beidaqiao No.1 Wind Farm Project in Gansu Province, China of previous monitoring period from 03/01/2011 to 28/09/2011
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 - /25/ Statement from local power grid company about electricity exported to the grid and electricity imported from the grid by the Project for the period from 29/06/2012 to 30/06/2012
 - /26/ statistic data for high wind abandonment rate from website:
http://www.nea.gov.cn/2015-07/27/c_134451678.htm
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 - /27/ "List of key emissions in the national carbon emissions transaction quota management in 2019-2020" issued by Ministry of Ecology and Environment of P.R.China
 - /28/ Qualification of Hubei Metrology and Testing Technology Research Institute Zhongnan National Measurement and Test Center, issued by CNAS of the People's Republic of China issued on 02/11/2020, valid till 09/11/2024

Methodologies, tools and other guidance

- /29/ Verified Carbon Standard: VCS Standard, version 4.1.
- /30/ Verified Carbon Standard: VCS Program Guide, version 4.0.
- /31/ Verified Carbon Standard: Registration and Issuance Process, version 4.0.

/32/ UNFCCC EB: Approved methodology, ACM0002, version 12.1.0

Persons interviewed

/33/ Ms. Zhang Ling, Project Manager, Hydrochina Guazhou Wind Power Co., Ltd.

Mr. Yang Fubin, Director of the plant, Hydrochina Guazhou Wind Power Co., Ltd.

Mr. Pan Xiaoyu, Vice Director of the plant, Hydrochina Guazhou Wind Power Co., Ltd.

Mr. Wang Chao, Director of Production & Technology Department, Hydrochina Guazhou Wind Power Co., Ltd.

Ms. Zhang Xiaolan, local resident

Ms. Wang Hui, local resident

Ms. Li Mengtong, local resident

Mr. You Yusheng, Staff, Local Environment Protection Bureau

APPENDIX C: 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
NA	NA	NA	NA

Table 3: Forward Action Requests

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