



CECIC GANSU YUMEN CHANGMA NO.3 WIND FARM PROJECT



Document Prepared By LGAI Technological Center, S.A. (Applus+ Certification)

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Prepared By	LGAi Technological Center, S.A. (Applus+ Certification)
Contact	Campus UAB – Ronda de la Font del Carme, s/n 08193 Bellaterra – Barcelona (Spain)

	Tel.: +34 93 567 20 08 Fax.: +34 93 567 20 01 www.appluscertification.com agustin.calle@applus.com carla.debat@applus.com
Approved By	LGAI Technological Center S.A. (Applus+ Certification) B.U. Managing Director: Juan Sendín Caballero
Work Carried Out By	Lead Auditor / Technical Expert: Denny Xue Technical Reviewer: Simon Shen

Summary:

LGAI Technological Center, S.A. (hereafter referred to as “Applus+ Certification”) has been commissioned by Goldchina Consultancy International Co., Ltd. to perform the verification of greenhouse gas emission reductions of the project activity “CECIC Gansu Yumen Changma No.3 Wind Farm Project” (VCS Ref. No. 728, hereafter referred to as “the project activity”) reported in the monitoring report /1/ during monitoring period 01/07/2018 to 31/12/2019.

The project activity has been validated by TÜV Rheinland Japan Ltd. based on the CDM PDD /3/ version 10.2 dated 20/04/2011 and reported in the validation report No. 01 997 9105061567 /4/, version 05, completed on 21/04/2011. The project activity was registered as a CDM project activity on 28/04/2011 which is available at <http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view>. Also, a PRC has been made and approved by UNFCCC, then CDM PDD version 11.0 /4/ dated 02/07/2012 would also be the basis for this verification. A gap validation was performed by LGAI Technological Center, S.A. (Applus+ Certification) through the first VCS verification which is available at <https://registry.verra.org/app/projectDetail/VCS/728>.

The project activity is a wind farm project located at Yumen Town, Yumen City, Gansu Province, People's Republic of China which is to use wind resource for electricity generation. The installed capacity of the project activity is 201 MW, consisting of 134 sets of wind turbines with unit capacity of 1.5 MW. The average annual power delivered to the grid by the project is expected to be 463,714 MWh. The Project can reduce GHG emissions by replacing the electricity generated by fossil fuel fired power plants Northwest China Power Grid (NWPG). It's estimated that the proposed project could achieve GHG emission reductions of 425,689 tCO₂e annually.

The purpose and scope of this verification is to ensure that reported emission reductions are complete and accurate in accordance with applicable VCS standards and relevant UNFCCC requirements in order to be certified. A desk review and a site visit have been conducted to verify the data submitted in the monitoring report /1/. Applus+ Certification confirms the following has been reviewed:

- Monitoring plan included in the revised CDM PDD /3/, version 11.0, dated 02/07/2012 and CDM PDD /3/ version 10.2 dated 20/04/2011;
- Validation report No. 01 997 9105061567 /4/, version 05, completed on 21/04/2011;

- Verification report /4/, version 01.0, completed 04/03/2016 by Shenzhen CTI International Certification Co., Ltd;
- Approved methodology, ACM0002 /9/, version 12.1.0, dated 17/09/2010;
- VCS standards and guidance version 4.0, as well as relevant UNFCCC requirements;
- All information and references relevant to the project activity's resulting in emission reductions.

During this verification, no finding was identified related to the monitoring, implementation or operations of the project activity in relation to relevant VCS standards, guidance and UNFCCC requirements and relevant host party criteria and the applied baseline and monitoring methodology etc.

Applus+ Certification confirms that the project is implemented in accordance with the registered PDD /3/. The monitoring plan complies with the applied methodology ACM0002 /7/ version 12.1.0 and the monitoring has been carried out in accordance with the monitoring plan in the registered PDD /3/. The monitoring system is in place and the emission reductions are calculated without material misstatements. The level of assurance of the verification is reasonable. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 528,878 tCO₂e emission reductions during period 01/07/2018 to 31/12/2019.

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1 INTRODUCTION

1.1 Objective

LGAI Technological Center, S.A. (Applus+ Certification) has been commissioned by Goldchina Consultancy International Co., Ltd. to perform the verification of greenhouse gas emission reductions of the project activity “CECIC Gansu Yumen Changma No.3 Wind Farm Project” (VCS Ref. No. 728) reported in the Monitoring Report /1/ during monitoring period 01/07/2018 to 31/12/2019.

LGAI Technological Center, S.A. (Applus+ Certification) as the verification body of the project activity has been accredited as a DOE by UNFCCC and also meets the competence requirements as set out in ISO 14065:2007.

The objective of verification is to have an independent review and ex post determination by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the registration of VCS project. Certification is the written assurance by the DOE that, during a specific time period, a proposed VCS project activity achieved the reductions in anthropogenic emissions by sources of GHGs as verified.

The objective of this verification/certification is to verify and certify emission reductions, reported for the “CECIC Gansu Yumen Changma No.3 Wind Farm Project” in China for the period 01/07/2018 to 31/12/2019.

1.2 Scope and Criteria

The verification scope is defined as an independent and objective review of the registered PDD, the Project’s baseline study and Monitoring Report (MR) and other relevant documents. The information in these documents is reviewed against VCS Version 4.0 requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting towards the client. However, stated requests for forward actions and/or corrective actions may provide input for improvement of the Project monitoring towards reductions in the GHG emissions.

1.3 Level of Assurance

The verification report is based on the VCS-PD, the VCS Monitoring Report (MR), supporting evidences made available to the verifier and information collected through performing interviews and during the on-site assessment.

The verification conclusion is assured a reasonable level of assurance.

1.4 Summary Description of the Project

Project title	CECIC Gansu Yumen Changma No.3 Wind Farm Project
VCS reference number	728
Project Participants	CECIC Wind-power (Gansu) Co., Ltd. (Project Owner, host country, P. R. China)
Location of the project	Yumen Town, Yumen City, Gansu Province, People's Republic of China Geographic coordinates: Latitude from N 40°05'39" to N 40°09'52" and Longitude from E 96°46'22" to E 96°51'57"
Project start date	Construction start date: 19/09/2009 Operation start date: 28/01/2011 Fully operation start date: 23/10/2012
Version of VCS PD or CDM PDD	Version 10.2, dated 20/04/2011 (CDM) Version 11.0 dated 02/07/2012 (CDM and basis for verification)
Monitoring period	01/07/2018 to 31/12/2019
First monitoring report	Version 01, dated 26/03/2020
Final monitoring report	Version 02, dated 01/04/2020
Applied Methodology/Version	ACM0002, version 12.1.0, dated 17/09/2010
Scope/Technical Area	1/1.2

The project activity is a wind farm project located at Yumen Town, Yumen City, Gansu Province, People's Republic of China which is to use wind resource for electricity generation. The installed capacity of the project activity is 201 MW, consisting of 134 sets of wind turbines with unit capacity of 1.5 MW. The average annual power delivered to the grid by the project is expected to be 463,714 MWh. The Project can reduce GHG emissions by replacing the electricity generated by fossil fuel fired power plants Northwest China Power Grid (NWPG). It's estimated that the proposed project could achieve GHG emission reductions of 425,689 tCO₂e annually.

The project activity has been validated by TÜV Rheinland Japan Ltd. based on the CDM PDD /3/ version 10.2 dated 20/04/2011 and reported in the validation report No. 01 997 9105061567 /4/, version 05, completed on 21/04/2011. The project activity was registered as a CDM project activity on 28/04/2011 which is available at <http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view> . Also, a PRC has been made and approved by UNFCCC, then CDM PDD version 11.0 /4/ dated 02/07/2012 would also be the basis for this verification. A gap validation was performed by LGAI Technological Center, S.A. (Applus+ Certification) through the first VCS verification which is available at <https://registry.terra.org/app/projectDetail/VCS/728>.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification was conducted using Applus+ Certification's procedures in line with the requirements specified in the VCS Standard version 4.0, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant UNFCCC requirements and applying standard auditing techniques.

Applus+ Certification completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report /1/ for the period in question. This involved a site visit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

The information of the assessment team is included in below:

Assessment team

According to the sectoral scopes / technical area and experiences in the sectoral or national business environment, Applus+ Certification has composed a project assessment team in accordance with the appointment rules in Applus+ Certification. The composition of assessment team has to be approved by the Applus+ Certification ensuring that the required skills are covered by the team. The four qualification levels for team members that are assigned by formal appointment rules as below:

- Leader Auditor (LA)
- Auditor (A)/ Auditor Trainee (AiT)

- Technical Reviewer (TR)
- Technical Experts (TE)

Name	Qualification	Coverage of scope	Coverage of Technical Area	Host country experience
<i>Denny Xue</i>	<i>LA/TE</i>	<i>Y (1.2)</i>	<i>Y</i>	<i>Y</i>
<i>Simon Shen</i>	<i>TR</i>	<i>Y (1.2)</i>	<i>Y</i>	<i>Y</i>

Denny Xue (Master Degree in Environmental Engineering, Bachelor Degree in Thermal Engineering) is a lead auditor appointed by Applus+ Certification for the GHG project assessment. He is based on Shanghai. He has 1.5 years of work experiences in CDM project development. Before he joined Applus+ Certification, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development.

Simon Shen (Master Degree in Thermal Energy Engineering, Bachelor Degree in Environmental Engineering) is a Lead Auditor appointed by Applus+ Certification for the GHG project assessment. He is based in Shanghai. He has several years of work experience in environmental protection field. Before he joined Applus+ Certification, he had been worked for TÜV SÜD as a GHG Validator/Assessment team and ISO 9001/14001 Lead Auditor for 3.5 years.

2.2 Document Review

The VCS monitoring report /1/ version 01 dated 26/03/2020, version 02 dated 01/04/2020 and the emission reduction calculations spreadsheet /2/, were assessed as part of the verification. In addition, the registered PDD /3/ version 11.0 dated 02/07/2012 in particular the baseline estimations and the monitoring plan, the CDM validation report /04/ version 05 dated 21/04/2011 and the verification report /4/ version 01 dated 04/03/2016, as well as relevant documents, were reviewed. A detailed documents reviewed are listed in Annex 1 of the report.

2.3 Interviews

The key personnel interviewed are summarized in the table below:

Interviewed personnel	Role	Organization	Subject
Ms. Lv Xin	Project Manager	CECIC Wind-power (Gansu) Co., Ltd.	Operation of the project activity; Implementation of the monitor plan of the project activity;
Mr. Yang Shuai	Project Manager	CECIC Wind-power (Gansu) Co., Ltd.	Data collection and data achievement; Calibration of meters and equipment maintenance.
Dr. Zheng Zhaoning	Manager	Goldchina Consultancy International Co., Ltd.	Data collection and ER calculation.
Mr. Hong Zhou	Project Manager	Goldchina Consultancy International Co., Ltd.	

2.4 Site Inspections

The assessment team performed the on-site verification (Yumen Town, Yumen City, Gansu Province, People's Republic of China) on 30/03/2020. The interviewed personnel and objective are listed in above table.

2.5 Resolution of Findings

As an outcome of the verification process, the team can raise different types of findings.

Where a non-conformance arises the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the project activity has not been sufficiently documented by the project participants;

c) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;

d) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.

There is no CARs and CLs raised for this monitoring period for the project.

2.5.1 Forward Action Requests

None FAR was raised during the verification process. Also there are no remaining from former verification and validation.

2.6 Eligibility for Validation Activities

Not applicable as LGAI Technological Center, S.A. holds the accreditation for the validation and verification for projects under scope 1.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Through reviewing the registered PDD /3/ and validation and verification report /4/, it was validated that the project has been registered as a CDM project with reference No. 4734 first which is available at <http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1303442859.42/view>. Then the project has been registered as VCS project which is available at <https://registry.terra.org/app/projectDetail/VCS/728>. The project does not participate in the other emissions trading program by checking public information on Internet, interviewing with project owner and statement issued by project owner.

During the period from 28/01/2011 to 27/01/2021 as the first VCS crediting period, the project would claim only for VCU or CERs. But both VCS and CERs will not be claimed in the same period. Also, for period 28/04/2011 to 31/12/2015, the project has applied for the issuance of CERs.

Therefore, Applus+ Certification consider the project is eligible to participate under the VCS Program as there is no double counting for the emission reduction during any period.

3.2 Methodology Deviations

Not applicable as not deviation for methodology.

3.3 Project Description Deviations

Not applicable as not deviation for project description.

3.4 Grouped Project

Not applicable as not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

By means of on-site visit, the assessment team confirms that all physical features of the proposed CDM project activity proposed in the revised CDM PDD /4/ are in place and the PP has operated the project as per revised CDM PDD /4/. The installed capacity of the project is 201 MW, consisting of 134 sets of wind turbines with unit capacity of 1.5 MW. The electricity generated is transmitted to the local Yumen town grid via a newly built 35kV/330kV transformer station, which was then exported to the NWPG. The project activity was expected to supply 463,714 MWh of electricity to the grid annually. The construction of the project started on 19/09/2009, the first wind turbine of the project has been put into operation on 28/01/2011 and the commissioning time of all 134 wind turbines was 23/10/2012 verified by checking information on the UNFCCC website. There are no changes on the key equipment and technology since the validation of the project. No special event which would affect the monitoring of the project has been observed during the monitoring period.

The emission reduction resulted from the project during this monitoring period would apply for VCUs. There are no other forms of environmental credits applied or issued for the project activity. Therefore, the project has not been participated or been rejected under any other GHG programs since validation or previous verification. The project would contribute to sustainable development in as below:

Job creation: Implementation of the Project will generate employment opportunities for local contractors and suppliers, while operation and maintenance of the plant will create additional long-term employment opportunities for skilled professionals. For the Project operation PP is planning to employ a number of skilled workers, while more additional jobs were created by sub-contractors for construction of the Project.

Reduction in GHG emissions: Currently, most of the electricity in the region is generated through conventional fossil fuel based thermal power plants, according to the China Electricity Power Yearbook 2009. Through combustion of fossil fuels, they emit a large volume of Greenhouse gasses (GHG) into the atmosphere, which has a negative effect on global society. Generation of GHG emission free electricity, such as wind, will displace electricity generated by these fossil fuel based thermal plants, therefore reducing GHG emissions.

Reduction of fossil fuel use: The Project Activity will reduce reliance on imported fossil fuels, which will contribute to increasing China's energy security, and will also improve local air quality as it reduces the emissions of SO₂ and NO_x associated with fossil fuel use.

Increase of power supply: Due to rapid economic growth in recent years, China is experiencing a serious shortage of electricity, causing blackouts and brownouts throughout the country. Such power outage reduces economical activity, and has a negative effect on daily life. With the new

wind farm, the grid is expected to improve its supply while contributing to steady and reliable economical growth in the region.

The technical parameters have been verified with the nameplates /9 / as below:

Item	FD82A/1500
1. Data for Unit	
Rated capacity (kW)	1,500
Number of unit	134
Capacity control method	Adjusting the pitch of blade and wind wheel speed control
Turbine diameter (m)	82
Hub height (m)	70
Cut in wind speed (m/s)	3.0
Rated wind speed (m/s)	11
Cut out wind speed (m/s)	20.0
Wind speed limit (m/s)	52.5
Operating temperature (°C)	-20~40
The wind direction	Upwind
Technical lifetime (y)	20
2. Blade	
Number of blades	3
Material of blade	GRP
End profiles of blades speed (m/s)	74.3
3. Generator	
Type of generator	Double-fed slip ring asynchronous generator
Rated capacity (kW)	1,500
Output Voltage (V)	690
Rated speed (rpm)	1,000~1,800 (+10.0%)
4. Machinery space & Tower	
Machinery space (t) (exclude blade)	61
Blade	3×6.2
Type of tower	Conical steel tube

High of tower (m)	70
Weight of tower (t)	127.66

By comparing the actual ER claimed in this monitoring period with the estimate in the registered PDD, the actual emission reductions (528,878 tCO₂e) are lower than what is stated in the registered PDD (i.e. 640,283 tCO₂e, equals to annual emission reductions, 425,689 tCO₂e multiplied by the actual operational days (549 days) then divided by 365 days) which could be consider in the normal variation range. Therefore, the assessment team consider the variation of ERs is acceptable and surely will not lead to the overestimation of VERs.

The assessment team confirmed that there is no proposed or actual change to the project design 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 PDD, it is confirmed that wind power is green power and the impact caused by wind power on the surrounding ecosystem and residents, water, 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

The local stakeholder's meeting was held in Yumen City on 18/06/2008. 45 participants attended the meeting including local residents, builders and members of the local authorities. The project owner introduced the proposed project, and then a survey was arranged through a one-page questionnaire, which was designed to be easily filled in. The opinions expressed by the stakeholders were recorded and are available on request.

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.

Communications with Local stakeholders was being carried out at periodic intervals. There are no negative comments received for the project.

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

4.3 AFOLU-Specific Safeguards

Not applicable as non-AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /3/. All parameters were monitored and determined as per the monitoring plan which is listed in below table:

Data / Parameter:	EG _{facility,y}
Data unit:	MWh
Description:	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Purpose of the data:	Calculation of baseline emissions
Parameter value:	576,120.810
Source of data used:	EG_{facility,y} is the difference of the quantity of electricity exported to NWPG by the Project and the quantity of electricity imported from NWPG by the Project. The quantity of electricity exported to NWPG by the Project and the quantity of electricity imported from NWPG by the Project are all sourced from Meter Reading Record (MRRs) /10/ issued by the project owner, Electricity Transaction Notes (ETNs) /11/ issued by power grid company covering monitoring period.
Information flow:	For the quantity of electricity exported to NWPG by the Project: 10 bidirectional electricity meters (M35A1, M35A2, M35A3, M35A4, M35A5, M35B1, M35B2, M35B3, M35B4 and M35B5) installed at the ten 35kV transmission lines of the Changma west 35kV/330kV substation were measured continuously, recorded monthly and archived electronically. Meanwhile, as the project shares the gateway meters with other project(s), 2 gateway meters (one main, another as backup) are also used to measure the electricity exported to NWPG by the project and other project(s). At 24:00 hr of last day of each month, the staff from project owner will record 10 bidirectional electricity meters' readings and form Meter Reading Records (MRRs). The staff from power grid company will record the meter readings of main gateway meter then transcribes the data into Electricity Transaction Notes (ETNs) by considering the transmission and line loss, then after the confirmation of the project owner for the ETNs, the project owner will issue the invoice.

	For the quantity of electricity imported from NWPG by the Project: 10 bidirectional electricity meters (M35A1, M35A2, M35A3, M35A4, M35A5, M35B1, M35B2, M35B3, M35B4 and M35B5) installed at the ten 35kV transmission lines of the Changma west 35kV/330kV substation were measured continuously, recorded monthly and archived electronically. Meanwhile, as the project shares the gateway meters with other project(s), 2 gateway meters (one main, another as backup) are also used to measure the electricity imported from NWPG by the project and other project(s). At 24:00 hr of last day of each month, the staff from project owner will record 10 bidirectional electricity meters' readings and form Meter Reading Records (MRRs). The staff from power grid company will record the meter readings of main gateway meter then transcribes the data into Electricity Transaction Notes (ETNs) by considering the transmission and line loss, then after the confirmation of the project owner for the ETNs, the power grid company will issue the invoice. The data for MRRs, ETNs have been sent to the CDM consulting company for reporting of GHG emission reduction. The conservative one would be used for ER calculation.																																												
Monitoring method, frequency and equipments:	The parameter was measured continuously and recorded monthly by 10 bi-direction electricity meters installed at the ten 35kV transmission lines of the Changma west 35kV/330kV substation by the Project during the monitoring period verified by site visit. Also 2 gateway meters were used for monitoring. See below for the information of 10 bi-direction electricity meters and 2 gateway meters verified by site visit and checking calibration certificates /12/: <table><tr><th>Meter</th><th>Type</th><th>Serial Number</th><th>Accuracy</th></tr><tr><td>M35A1</td><td>DSSD331</td><td>10040283430044</td><td>0.5s</td></tr><tr><td>M35A2</td><td>DSSD331</td><td>10040283430043</td><td>0.5s</td></tr><tr><td>M35A3</td><td>DSSD331</td><td>10070369680003</td><td>0.5s</td></tr><tr><td>M35A4</td><td>DSSD331</td><td>10060343560044</td><td>0.5s</td></tr><tr><td>M35A5</td><td>DSSD331</td><td>10060343560047</td><td>0.5s</td></tr><tr><td>M35B1</td><td>DSSD331</td><td>10070369680002</td><td>0.5s</td></tr><tr><td>M35B2</td><td>DSSD331</td><td>10060343560043</td><td>0.5s</td></tr><tr><td>M35B3</td><td>DSSD331</td><td>10060343560046</td><td>0.5s</td></tr><tr><td>M35B4</td><td>DSSD331</td><td>10060343560048</td><td>0.5s</td></tr><tr><td>M35B5</td><td>DSSD331</td><td>10040283430045</td><td>0.5s</td></tr></table>	Meter	Type	Serial Number	Accuracy	M35A1	DSSD331	10040283430044	0.5s	M35A2	DSSD331	10040283430043	0.5s	M35A3	DSSD331	10070369680003	0.5s	M35A4	DSSD331	10060343560044	0.5s	M35A5	DSSD331	10060343560047	0.5s	M35B1	DSSD331	10070369680002	0.5s	M35B2	DSSD331	10060343560043	0.5s	M35B3	DSSD331	10060343560046	0.5s	M35B4	DSSD331	10060343560048	0.5s	M35B5	DSSD331	10040283430045	0.5s
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M35A4	DSSD331	10060343560044	0.5s																																										
M35A5	DSSD331	10060343560047	0.5s																																										
M35B1	DSSD331	10070369680002	0.5s																																										
M35B2	DSSD331	10060343560043	0.5s																																										
M35B3	DSSD331	10060343560046	0.5s																																										
M35B4	DSSD331	10060343560048	0.5s																																										
M35B5	DSSD331	10040283430045	0.5s																																										

	Gateway meter (Main meter)	SL7000	57033315	0.2s
	Gateway meter (Backup meter)	SL7000	57033312	0.2s
	The type, serial number and accuracy have been confirmed by site visit.			
Calibration:	The calibration information are shown as below /12/:			
	Meter	Calibration date	Valid until	
	M35A1, M35A2, M35A3, M35A4, M35A5, M35B1, M35B2, M35B3, M35B4 and M35B5	20/02/2018	19/02/2019	
		15/02/2019	14/02/2020	
	Gateway meter (Main and Backup meter)	28/09/2017	27/09/2018	
		25/09/2018	24/09/2019	
		22/09/2019	21/09/2020	
	The calibration was conducted by accredited third parties which are Electric Energy Measurement Centre of Gansu Electric Power Corporation and Metrological Centre of Jiayuguan Power Supply Corporation were accredited by Quality and Technical Supervision Bureau of Gansu Province /13/.			
QA/QC procedure:	Data record will be archived for a period of 2 years after the crediting period to which the records pertain.			
Means of verification:	Data of the parameter was verified by checking MRRs and ETNs. All data is in line with MRRs and ETNs;			
	Information flow was verified by checking MRRs and ETNs, and all information are consistent;			
	Monitoring method was verified by site visit, checking calibration certificates, all monitoring method meets the description in the PDD;			
	Calibration was verified by checking calibration certificate and Accreditation certificate, all calibration of monitoring equipment meets the requirement indicated in the PDD.			

Parameters available at validation stage:

Below data has been verified against the data sources and the PDD.

Parameter title	Description	Data	Source
EF _{grid,CM,y*}	Baseline emission factor: the combined emission factor	0.9180	Notification on 2010 baseline emission factors for regional power grids in China, issued by China on 20/12/2010 /14/.

* $EF_{grid,CM,y}$ is not directly available in the registered PDD but calculated based on the ex-ante data fixed in the registered PDD.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /3/ version 11.0 dated 02/07/2012.

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the MR Report and ER Calculation Spreadsheet /2/ and are consistent with the applied methodology ACM0002 version 12.1.0 and the monitoring plan contained in the registered PDD. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it's confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the ER Calculation Spreadsheet and the MR Report. The verification process for the same has been clearly described above in section 4.4 of the report.

4.6 Non-Permanence Risk Analysis

Not applicable as a renewable project.

5 VERIFICATION CONCLUSION

Applus+ Certification has been commissioned by Goldchina Consultancy International Co., Ltd. to perform the verification of greenhouse gas emission reductions of the project activity “CECIC Gansu Yumen Changma No.3 Wind Farm Project” (VCS Ref. No. 728).

The management of CECIC Wind-power (Gansu) Co., Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s Monitoring Plan in the registered PDD /3/, version 11.0 dated 02/07/2012.

Our verification approach was based on the requirements as defined under the applicable VCS standards 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 PDD;
- the monitoring plan in registered PDD is as per the applied methodology;
- the monitoring complies with the monitoring plan in the registered PDD;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS 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.

In our opinion, the GHG emission reductions for “CECIC Gansu Yumen Changma No.3 Wind Farm Project” during the monitoring period 01/07/2018 to 31/12/2019 as reported in Monitoring Report, prepared on the basis of the project’s Monitoring Plan are fairly stated. Based on the information we have seen and evaluated, we confirm the following statement:

Verification period: From 01/07/2018 to 31/12/2019 (divided into 2 vintage periods). Verified GHG emission reductions or removals in the above reporting 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)
2018	181,553	0	0	181,553
2019	347,325	0	0	347,325
Total	528,878	0	0	528,878

APPENDIX 1: REFERENCE LIST

1. Monitoring report, version 01, dated 26/03/2020; version 02, dated 01/04/2020
2. ER calculation spreadsheet
3. Registered CDM PDD, version 10.2, dated 20/04/2011;
Registered Revised CDM PDD, version 11.0, dated 02/07/2012
4. Validation report, No. 01 997 9105061567, version 05, completed by TÜV Rheinland Japan Ltd.;
Verification report, Version 01.0, completed on 04/03/2016 by Shenzhen CTI International Certification Co., Ltd
5. VCS standard version 4.0, dated on 19/09/2019
6. Statement issued by project owner
7. Approved methodology ACM0002, version 12.1.0, dated 17/09/2010
8. CDM Monitoring procedure
9. Nameplate of the equipment
10. Meter Reading Record (MRRs) for Meters
11. Electricity Transaction Notes covering the monitoring period
12. Calibration certificates of meters covering the whole monitoring period issued by Electric Energy Measurement Centre of Gansu Electric Power Corporation and Metrological Centre of Jiayuguan Power Supply Corporation
13. Accreditation certificates for Electric Energy Measurement Centre of Gansu Electric Power Corporation and Metrological Centre of Jiayuguan Power Supply Corporation issued by Quality and Technical Supervision Bureau of Gansu Province

- 14 Notification on 2010 baseline emission factors for regional power grids in China, issued by China on 20/12/2010