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GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)
REPORT
-
VERIFICATION

Project Title:	CECIC HKC Danjinghe Wind Farm Project
Monitoring Period:	08/04/2017 to 30/09/2018
GS project ID:	6753
Internal ID:	A+SH_SYST_GS_VER_1219
Customer:	Beijing Ruifang Information Technology Co., Ltd
Date:	06/08/2019
Revision:	01.0

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SUMMARY			
Reference No.	**Date** *(first version)*	**Version No.**	**Date** *(last version)*
A+SH_SYST_GS_VER_1219	06/08/2019	01.0	06/08/2019
GS4GG Verification			
GS4GG Certified Product *(sought)*:	GHG Emission Reductions		
GS4GG SDG Impact Statement *(sought)*:	Not Applicable		
General Information			
Client	Beijing Ruifang Information Technology Co., Ltd		
Project Title	CECIC HKC Danjinghe Wind Farm Project		
Project Participants	CECIC HKC Wind Power Co., Ltd. Amsterdam Capital Trading BV		
Project Location	Northwest of Zhangbei County, Hebei Province, China		
Contact Person	Yao Baojie		
Monitoring Period:	08/04/2017 to 30/09/2018		
GS4GG Version: 1.1 GS4GG Activity Requirements: Renewable Energy Activity Requirements Applied Methodology Version: ACM0002 Version 19.0 Current Methodology Version: ACM0002 Version 19.0		GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2	
Published Monitoring Report Version: 01 Date: 03/07/2019		Final Monitoring Report Version: 02 Date: 05/08/2019	
Certified Project Design Document Version: 2.3 Date: 27/05/2019			
Estimated Annual Emission Reductions: 395,001 tCO_2e			
Actual Emission Reductions: 618,153 tCO_2e			
Selected Sustainable Development Goals (SDGs): SDG7; SDG8; SDG13			
Verification Summary			
LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Beijing Ruifang Information Technology Co., Ltd to perform the first periodical verification of CECIC HKC Danjinghe Wind Farm Project (GS Ref. No. 6753) applying the methodology ACM0002 Version 19.0. The management of CECIC HKC Wind Power Co., Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions. A desk review and a site visit have been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following has been reviewed: (a) The registered PDD including the monitoring plan and the corresponding validation report; (b) Monitoring report(s); (c) Former Verification Report(s) if applicable; (d) The applied monitoring methodology; (e) Relevant decisions, clarifications and guidance from the CMP;			

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SUMMARY
(f) The GS4GG Version 1.1 and related Annex. All information and references relevant to the project activity's resulting in emission reductions. The project is a new-built wind power project. The total installed capacity of the project is 200 MW involves the installation and operation of 54 wind turbines of 750 kW, 100 wind turbines of 800 kW and 53 wind turbines of 1,500 kW. The purpose of the project activity is to utilize wind power to generate electricity. The project will contribute to the reduction of GHG emission by displacing part of the electricity from North China Power Grid (NCPG) which is dominated by fossil fuel-fired power plants. Applus+ Certification confirms that the project is implemented in accordance with the validated and registered PDD. The monitoring plan complies with the applied methodology ACM0002 Version 19.0 and the GS4GG Version 1.1, the monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. 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 618,153 tCO_2e emission reductions during period 08/04/2017 - 30/09/2018.

ASSESSMENT TEAM		
Team Members	**Type of Resource**[1]	**Organization** *(for OEs)*
Lead Auditor: Denny Xue	☐IR ☒EI ☐OE	NA
Auditor: NA	☐IR ☐EI ☐OE	NA
Technical Expert: Denny Xue	☐IR ☒EI ☐OE	NA
Technical Reviewer: Simon Shen	☐IR ☒EI ☐OE	NA

[1] IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

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ABBREVIATIONS	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology Small Scale
Applus+ Certification / Applus+	LGAI Technological Center, S.A. (Applus+)
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CL / CR	Clarification Request
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
MR	Monitoring Report
NCPG	North China Power Grid
NGO	Non-Governmental Organization
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

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1. INTRODUCTION

1.1 Objective

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Beijing Ruifang Information Technology Co., Ltd to perform the first periodical verification of CECIC HKC Danjinghe Wind Farm Project (GS Ref. No. 6753) applying the methodology ACM0002 Version 19.0 and the GS4GG Version 1.1. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard CERs

The objective of the verification work is to comply with the GS4GG Version 1.1. According to this assessment Applus+ Certification shall:

- ensure that the project activity has been implemented and operated as per the registered PDD "CECIC HKC Danjinghe Wind Farm Project" version 2.3, dated 10/05/2019, and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- ensure that the published MR and other supporting documents provided are complete, verifiable and in accordance with applicable VVS and Gold Standard requirements;
- ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- evaluate the data recorded and stored as per the Grid connected renewable electricity generation, ACM0002 Version 19.0.

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification is based on the submitted monitoring report, the validated and registered PDD and Passport as well as its validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CMP and the EB, The GS4GG Version 1.1 and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the GS4GG Version 1.1 and related rules and guidance.

Based on the requirements in the Verification Standard for project activities version 02.0 as well as the GS4GG Version 1.1, Applus+ Certification has applied a rule-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of sustainable parameters.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

1.3 Description of the project activity

Project activity:	CECIC HKC Danjinghe Wind Farm Project
Gold Standard registration number:	6753
Project Participants:	CECIC HKC Wind Power Co., Ltd. (Project Owner)

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Location of the project:	Northwest of Zhangbei County, Hebei Province, China Geographic coordinates (Verified by site visit and Google Earth): Longitude from 114°16'56" to 114°25'11" East Latitude from 41°05'00" to 41°12'47" North
Date of registration:	08/04/2019
Starting date of the crediting period:	08/04/2017

CECIC HKC Danjinghe Wind Farm Project (hereafter referred to as "the project" or "the project activity") is located at Northwest of Zhangbei County, Hebei Province, China.

The project is a new-built wind power project. The total installed capacity of the project is 200 MW involves the installation and operation of 54 wind turbines of 750 kW, 100 wind turbines of 800 kW and 53 wind turbines of 1,500 kW. The purpose of the project activity is to utilize wind power to generate electricity. The project will contribute to the reduction of GHG emission by displacing part of the electricity from North China Power Grid (NCPG) which is dominated by fossil fuel-fired power plants.

2. METHODOLOGY

Applus+ Certification's approach to the verification is a two-stage process.

In the 1st stage, 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 used a periodical Verification Checklist which, based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the 2nd stage, using the Verification Checklist, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report 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.

2.1 Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall 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 are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Denny Xue	LA/TE	1	1.2	Yes	Yes
Simon Shen	TR	1	1.2	Yes	Yes

The curricula vitae of the DOE's validation team members are provided below:

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) has been appointed as a Technical Reviewer 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/Verifier and ISO 9001/14001 Lead Auditor for 3.5 years.

2.2 Document review

The Monitoring Report version 01 was submitted to DOE before the verification activities started. The MR was assessed based on all the relevant documents. The aim of the assessment in the desk review was to:

- verify the completeness of the data and the information presented in the MR;
- check the compliance of the MR with respect to the monitoring plan depicted in the registered PDD and Passport, verify that the applied methodology was carried out. Particular attention to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures was paid;
- evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

A complete list of documents reviewed is available in section 5 of this report.

2.3 On site assessment and follow up interviews

Interviewed Personnel	Function	Organization
Zhixin Zhang	Assistant of General Manager	CECIC HKC Wind Power Co., Ltd.
Xilian Wu	Marketing Director	CECIC HKC Wind Power Co., Ltd.
Zhiwei Liu	Project manager	CECIC HKC Wind Power Co., Ltd.
Xuewen Wang	Chief	DRC of Zhangbei County
Xiang Yue	Villager	Zhangbei County

A site visit was conducted on 05/08/2019, the objective of the on-site assessment is to:

- confirm the implementation and operation of the project;
- review the data flow for generating, aggregating and reporting the monitoring parameters;
- confirm the correct implementation of procedures for operations and data collection;
- cross-check the information provided in the MR documentation with other sources;
- check the monitoring equipment against the requirements of the PDD, Passport and the approved methodology, including calibrations, maintenance, etc.;
- review the calculations and assumptions used to obtain the GHG data and ER;
- identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final MR. The source of the evidences will be discussed in section 3 of this report. Specific cross-checks have been done in cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

2.5 Reporting of findings

As an outcome of the verification process, the assessment 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:

a) 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;

b) Modifications to the implementation, operation and monitoring of the registered 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 (CR) if information is insufficient or not clear enough to determine whether the applicable GS requirements have been met.

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

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

All CARs, CRs and FARs for this verification period are included in chapter 4 of the report.

2.6 Internal Quality Control

As a final step of verification, the final documentation including the verification report have to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the DOE's Technical Manager or the Deputy. In case one of these two persons is part of the assessment team, the approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the Request for Issuance is submitted to the GS Registry along with the relevant documents.

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3. VERIFICATION FINDINGS

In the following sections, the results of the verification are stated. The verification results related to the project performance as documented and described in the registered PDD (dated 10/05/2019, version 2.3). The verification findings for each verification subject are presented below.

3.1 FARs from Validation / Previous Verification

As this is the first periodical verification, after checking validation report, there is no FARs requested.

3.2 Project Implementation in accordance with the registered Project Design Document

The project activity was fully implemented according to the description presented in the registered PDD. The assessment team confirms, through the visual inspection that all physical features of the proposed project activity including data collecting systems and storage have been implemented in accordance with the registered PDD.

The technical features of the equipments have been verified by the assessment team during site visit by checking nameplate of main equipment which is detailed listed below:

Key Technology Parameter	WD49/750KW	WD54/800KW	WD77/1500KW
Rotor diameter (m)	49	54	77
Swept area (m^2)	1,886	2,290	4,656
Number of Paddles	3	3	3
Rated rotor speed (RPM)	15	15	15
Cut-in wind speed (m/s)	3.5	3.5	3.5
Rated wind speed (m/s)	15	15	15
Cut-out wind speed (m/s)	23	25	20
Hub height of the wind turbines (m)	65	65	65
Total Capacity (MW)	40.5	80	79.5
Number of turbines	54	100	53
Rated Voltage	690	690	690
Manufacture	Zhejiang Windey Wind Generating Engineering Co. Ltd.		

The project activity was in normal operational and the same has been confirmed on-site. The project started construction on 11/05/2007 and started fully operation on 13/04/2010. The commissioning date for the first turbine was 21/01/2009. All these have been confirmed by site visit and checking verification report.

The project was registered at 08/04/2019 under GS scheme as confirmed by information on the GS website. Then the crediting period of the project started at 08/04/2017 which is 2 year prior to the GS registered date.

By comparing the actual ER claimed in this monitoring period with the estimate in the registered PDD, the actual emission reductions (618,153 tCO_2e) are 1.82% higher than what is stated in the PDD (i.e. 607,111 tCO_2e) which will surely not lead to a substantial increment of the ER in this period.

Applus+ Certification confirms that none of the data affects the additionality, scale or applicability of the project. There's no post registration change has been occurred during this monitoring period.

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3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The monitoring plan is in accordance with the approved methodology ACM0002 Version 19.0, applied by the proposed GS project activity. No deviation, correction or permanent change to the monitoring plan has been requested.

3.4 Completeness of Monitoring

GHG parameters:

The verification of monitoring parameters is in accordance with the monitoring plan described in the registered PDD; the emission reductions (ER) achieved during the current monitoring period (from 08/04/2017 to 30/09/2018) are already verified under CDM Verification. However, considering the monitoring period of CDM and GS is different, a comparison was made to confirm the accuracy of GHG parameters.

CDM Monitoring Period:

Period	EG_{export}	EG_{import}	$EG_{facility,y}$
01/04/2017-30/04/2017	42,942.55	44.00	42,898.55
01/05/2017-31/05/2017	37,951.70	68.64	37,883.06
01/06/2017-30/06/2017	19,612.88	149.60	19,463.28
01/07/2017-31/07/2017	17,835.58	119.68	17,715.90
01/08/2017-31/08/2017	31,645.81	79.20	31,566.61
01/09/2017-30/09/2017	27,611.42	86.24	27,525.18
01/10/2017-31/10/2017	24,821.33	110.88	24,710.45
01/11/2017-30/11/2017	58,089.85	47.52	58,042.33
01/12/2017-31/12/2017	56,778.84	75.68	56,703.16
Total in year 2017	317,289.95	781.44	316,508.51
01/01/2018-31/01/2018	44,266.17	128.48	44,137.69
01/02/2018-28/02/2018	50,295.08	35.20	50,259.88
01/03/2018-31/03/2018	42,787.14	73.92	42,713.22
01/04/2018-30/04/2018	48,607.52	73.92	48,533.60
01/05/2018-31/05/2018	37,225.36	73.92	37,151.44
01/06/2018-30/06/2018	43,953.87	35.20	43,918.67
01/07/2018-31/07/2018	46,415.79	127.60	46,288.19
01/08/2018-31/08/2018	30,044.74	348.48	29,696.26
01/09/2018-30/09/2018	37,251.26	134.64	37,116.62
From 01/01/2018 to 30/09/2018	380,846.92	1,031.36	379,815.56
Total in this CDM monitoring period	**698,136.87**	**1,812.80**	**696,324.07**

GS Monitoring Period:

Period	EG_{export}	EG_{import}	$EG_{facility,y}$
08/04/2017-30/04/2017	32,922.62	44.00	32,878.62
01/05/2017-31/05/2017	37,951.70	68.64	37,883.06
01/06/2017-30/06/2017	19,612.88	149.60	19,463.28
01/07/2017-31/07/2017	17,835.58	119.68	17,715.90

01/08/2017-31/08/2017	31,645.81	79.20	31,566.61
01/09/2017-30/09/2017	27,611.42	86.24	27,525.18
01/10/2017-31/10/2017	24,821.33	110.88	24,710.45
01/11/2017-30/11/2017	58,089.85	47.52	58,042.33
01/12/2017-31/12/2017	56,778.84	75.68	56,703.16
Total in year 2017	307,270.03	781.44	306,488.59
01/01/2018-31/01/2018	44,266.17	128.48	44,137.69
01/02/2018-28/02/2018	50,295.08	35.20	50,259.88
01/03/2018-31/03/2018	42,787.14	73.92	42,713.22
01/04/2018-30/04/2018	48,607.52	73.92	48,533.60
01/05/2018-31/05/2018	37,225.36	73.92	37,151.44
01/06/2018-30/06/2018	43,953.87	35.20	43,918.67
01/07/2018-31/07/2018	46,415.79	127.60	46,288.19
01/08/2018-31/08/2018	30,044.74	348.48	29,696.26
01/09/2018-30/09/2018	37,251.26	134.64	37,116.62
From 01/01/2018 to 30/09/2018	380,846.92	1,031.36	379,815.56
Total in this GS monitoring period	**688,116.95**	**1,812.80**	**686,304.15**

The GS monitoring period started from 08/04/2017, the data for this month (from 08/04/2017 to 30/04/2017) of EG_{export} was calculated based on whole month data considering the actual days including in the monitoring period, which is 23/30*42,942.55=32,922.62 MWh. For EG_{import}, for conservative reason, whole month data was used for the calculation. Other than this month, all data are consistent with CDM monitoring period. Then $EG_{facility,y}$ is determined as 686,304.15 MWh.

Please refer to verification report of CDM for more details.

Parameter not monitored:

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

Parameter title	Data	Source
$EF_{grid,CM,y}$	0.9007	Calculated by the parameters in the section B.6.2 of the registered PDD

In the MR and registered PDD, several parameters were listed, however all these parameters are used to calculate $EF_{grid,CM,y}$ which is fixed ex-ante.

Applus+ Certification has verified the defaulted figures which are not monitored in crediting period and confirmed that the figures are consistent with their sources.

3.5 SDG Outcomes Monitoring

In the Registered Passport, 4 data/parameters are chosen for the monitoring of SDG:

The verification of the data/parameters required by the monitoring plan is provided as follows:

Relevant SDG Indicator	SDG 7 - Affordable and Clean Energy 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP SDG 8 - Decent work and economic growth 8.4.1 Material footprint, material footprint per capita, and material

	footprint per GDP SDG 13 - Climate change 13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
Data/parameter:	$EG_{facility,y}$
Unit	MWh
Description	The net electricity supplied to the grid by the project
Measured/calculated/default	Calculated
Source of data	Monthly Reading Records (MRRs)
Value(s) of monitored parameter	2017: 306,488.59 2018: 379,815.56
Monitoring equipment	Electricity meters
Measuring/reading/recording frequency:	Measured continuously, recorded monthly
Calculation method (if applicable):	The net electricity supplied to the grid by the project ($EG_{facility,y}$) is the difference between electricity delivered to the grid by the proposed project (EG_{export}) and the power delivered from the grid (EG_{import}): $EG_{facility,y} = EG_{export} - EG_{import}$
QA/QC procedures:	Monitoring equipments are tested and maintained in accordance with the relevant technical codes.
Purpose of data:	Emission reduction calculation and SDG claim
Additional comments:	Not applicable
Means of verification:	Monthly Reading Records (MRRs) based on electricity meters are checked to determine the net electricity generated by the project activity. Please refer to the CDM verification report for details.

Relevant SDG Indicator	SDG 8 - Decent work and economic growth 8.3.1 Proportion of informal employment in non agriculture employment, by sex
Data/parameter:	$N_{employment}$
Unit	Not applicable
Description	The decent work provided by the project activity including safety protection measures and training. The annual training time for different person worked for the project, the number of youth people (15-24 years) and others
Measured/calculated/default	Measured
Source of data	Training Record, Roster of staff and employment contracts
Value(s) of monitored parameter	

Year	No of employment	Proportion of informal employment in non agriculture by project activity	By sex (female proportion)	Proportion of trained people	The number of youth people (15-24 years)

<table>
<tr><td></td><td>
<table>
<tr><td>2017</td><td>39</td><td>53.85%</td><td>25.64%</td><td>100%</td><td>17</td></tr>
<tr><td>2018</td><td>40</td><td>52.50%</td><td>25%</td><td>100%</td><td>17</td></tr>
</table>
</td></tr>
<tr><td>Monitoring equipment</td><td>Not applicable</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>Monitored Annually</td></tr>
<tr><td>Calculation method
(if applicable):</td><td>Not applicable</td></tr>
<tr><td>QA/QC procedures:</td><td>The employment contracts can be used to cross check the decent work position.</td></tr>
<tr><td>Purpose of data:</td><td>SDG claim</td></tr>
<tr><td>Additional comments:</td><td>Not applicable</td></tr>
<tr><td>Means of verification:</td><td>By checking Roster of staff and employment contracts, the number of employees, proportion of informal employment in non agriculture by project activity and gender of the employee were confirmed. By checking Training Record, it was able to confirm all employees had received proper training before the entry and during the working period. Also some interview has been made during site visit regarding to this issue, all results are consistent.</td></tr>
</table>

<table>
<tr><td>Relevant SDG Indicator</td><td>SDG 8 - Decent work and economic growth
8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age
8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status
8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status</td></tr>
<tr><td>Data/parameter:</td><td>Labour right and working environment</td></tr>
<tr><td>Unit</td><td>Not applicable</td></tr>
<tr><td>Description</td><td>Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status, the status of compliance of labour rights</td></tr>
<tr><td>Measured/calculated/default</td><td>Measured</td></tr>
<tr><td>Source of data</td><td>Statement from project owner regarding to child labour and fatal and non-fatal occupational injuries</td></tr>
<tr><td>Value(s) of monitored parameter</td><td>
<table>
<tr><th>Year</th><th>2017</th><th>2018</th></tr>
<tr><td>Proportion and number of children aged 5-17 years engaged in child labour, by sex and age</td><td>0</td><td>0</td></tr>
<tr><td>Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status</td><td>No happened</td><td>No Happened</td></tr>
<tr><td>Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual</td><td>N/A</td><td>N/A</td></tr>
</table>
</td></tr>
</table>

	sources and national legislation, by sex and migrant status | | Labour right and working environment | Labour right and working environment provided by the project developer is one of best case of local city.
Monitoring equipment	Not applicable
Measuring/reading/recording frequency:	Monitored Annually
Calculation method (if applicable):	Not applicable
QA/QC procedures:	Check annual reports refer to working condition and labour protection.
Purpose of data:	SDG claim
Additional comments:	Not applicable
Means of verification:	By checking annual reports refer to working condition and labour protection, it is able to confirm there are no child labour for the project and during the monitoring period, there are no injury happened. Also some interview has been made during site visit regarding to this issue, all results are consistent.

Relevant SDG Indicator	SDG 8 - Decent work and economic growth 8.1.1 Annual growth rate real GDP per capita 8.2.1 Annual Growth rate of real GDP per employed person 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities
Data/parameter:	Local county GDP indictor
Unit	%
Description	The revenue from the proposed project, VAT, VAT plus and income tax to show the local county economic growth, Annual growth rate of real GDP capita, Annual growth rate of real GDP per employed person and financial institutions numbers.
Measured/calculated/default	Measured
Source of data	Local government public data and payment of employees
Value(s) of monitored parameter	**Year** | **2017** | **2018** Local city GDP indictor (increased) | 6.8% | 7.6% People Number | 0.4% | 0.16% Income increase | 11.4% | 11.5%
Monitoring equipment	Check from local government public data and company finance data
Measuring/reading/recording frequency:	Monitored Annually
Calculation method (if applicable):	Not applicable
QA/QC procedures:	Using government pubic data and company finance data

Purpose of data:	SDG claim
Additional comments:	Not applicable
Means of verification:	By checking information from local government public data, the value for Local city GDP indictor and People Number are confirmed, by checking payment of employees, income increase of employee are confirmed. Also, some on-site interview was made to confirm the authentic of the value of parameter.

Also, during the site visit, Applus+ Certification conducted an interview with the project owner and local stakeholders, please find the summary of the interview as below:

Sections	**Debriefing**
Interviewee: Project owner	**CECIC HKC Wind Power Co., Ltd.**
If sufficient trainings have been provided to the staff during this monitoring period?	Yes. We offer continuous training for the staffs. The staffs have accepted a series of training on the monitoring system, electricity transmission, plant operation, emergency and safety procedures, Maintenance and Safe Operation. The training records was prepared and achieved. All operation staffs obtained relevant certificates and can be checked on-site.
If safe and healthy working condition has been provided to the staff?	Yes. The safe and healthy working condition has been provided to the staff. All working places, such as the control room, the office, employee dormitory, are open to the verifier for checking.
How many jobs has been created? In which how much are the female, any child labor?	We offered around 40 long-term work positions for local people have been created. We have around 10 female employee which share the same right with other employees. We are a state-owned company, so we will never hire child which is against the law.
During this monitoring period, is there any injured due to the work?	All employees are well trained and during the operation period, no one was injured due to work.
Interviewee: Workers	**CECIC HKC Wind Power Co., Ltd.**
Have you received any training?	Yes, I have received a lot training including working skill and safety issue.
Are you satisfied with your salary? Any increasing from 2017 to 2018?	Yes, I am quite happy with the payment. My salary increases about 10% each year.
What do you think of your working environment?	The project provides us a safe and favorable working environment. We are all happy with the working environment

During the site visit, it was able to confirm that a comment book with contact information was provided at the project site for grievance mechanism and continues inputs, also by checking the comment book and staff in charge of Telephone access and internet Internet/email access; it is able to confirm there are no comments received during the monitoring period.

Applus+ Certification checked all registries including VCS (http://www.vcsprojectdatabase.org/), REC (http://www.irecstandard.org/) and Green Energy (http://www.greenenergy.org.cn/), there are no double counting for this monitor period for the project. Also in the MR, the project owner made a declaration that states no RECs are been issued.

In Summary, it is Applus+ Certification's opinion that the monitoring of the project owner regarding to sustainability is in line with requirement of the GS4GG Version 1.1.

3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

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 Monitoring report Version 02 and ER calculation spreadsheet and are consistent with the applied methodology ACM0002 Version 19.0, Tool to calculate the emission factor for an electricity system 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 Monitoring Report Version 02 and ER calculation spreadsheet. The verification process for the same has been clearly described in section 3.4 of the report. See below for the detailed data:

Baseline emissions:

Monitoring period	$EG_{facility,y}$ (MWh)
08/04/2017-30/04/2017	32,878.62
01/05/2017-31/05/2017	37,883.06
01/06/2017-30/06/2017	19,463.28
01/07/2017-31/07/2017	17,715.90
01/08/2017-31/08/2017	31,566.61
01/09/2017-30/09/2017	27,525.18
01/10/2017-31/10/2017	24,710.45
01/11/2017-30/11/2017	58,042.33
01/12/2017-31/12/2017	56,703.16
2017	**306,488.59**
01/01/2018-31/01/2018	44,137.69
01/02/2018-28/02/2018	50,259.88
01/03/2018-31/03/2018	42,713.22
01/04/2018-30/04/2018	48,533.60
01/05/2018-31/05/2018	37,151.44
01/06/2018-30/06/2018	43,918.67
01/07/2018-31/07/2018	46,288.19
01/08/2018-31/08/2018	29,696.26
01/09/2018-30/09/2018	37,116.62
2018	**379,815.56**
Total	**686,304.15**

Therefore, $EG_{facility,y}$ is determined as 686,304.15 MWh. As $EF_{grid,CM,y}$ is fix as 0.9007 tCO_2e/MWh, then:

$BE_y = EG_{facility,y} * EF_{grid,CM,y} = 686,304.15 * 0.9007 = 618,153\ tCO_2e$

Also, the baseline emission of each year is determined as below:

Year	Baseline Emission (tCO_2e)
2017	276,054
2018	342,099

Project emissions:

The project is a wind power project, no fossil fuel will be consumed according to the methodology ACM0002, then, according to registered PDD, $PE_y = 0\ tCO_2e$

Leakage:

According to ACM0002 Version 19.0 **¡Error! No se encuentra el origen de la referencia.**, if energy generating equipment is transferred from another activity, leakage is to be considered.

As a newly built project, the equipments of the project are all new but the equipment transfer from other activities. Then this part of leakage should be considered as zero.

In summary, leakage is 0 tCO_2e

Emission reductions:

$ER = BE_y - PE_y = 618{,}153\ tCO_2e - 0\ tCO_2e = 618{,}153\ tCO_2e$

The calculation tool, i.e. the ER calculation spreadsheet clearly and transparently describes the calculation of emission reductions. The ER calculation spreadsheet is indicated with the issuing date and revision number. The assessment team re-produced the calculation process and confirmed that the methods and formulae used to obtain the baseline, project and leakage emissions are appropriate. The calculation has been done in accordance with the methods and formulae described in the registered monitoring plan and applicable methodology.

The reported data have been cross-checked against other sources available as explained above in section 3.4 of the report.

The assessment team confirms that all the assumptions, emission factors and default values (ex-ante values) from PDD have been correctly justified. All the emission factors and default values are explicitly mentioned in the monitoring report.

3.7 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the Project Operation Manual. The data related to ER calculation as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered PDD.

- Mr. Zhang Zhijun, Project Director is responsible for supervising the whole issues in the project activity;
- Mr. Li Wei (O&M Manager) is responsible for data collection, verifying and archiving;
- Mr. Zhang Hongwei (O&M Manager) is responsible for collating electricity sale receipts and sale records and management of verification materials;
- Mr. Yao Baojie from the Beijing Ruifang Information Technology Co., Ltd is responsible for pre-paring the Monitoring Report and ER calculation.

The information flow of each parameter has been verified by the assessment team via interviewing with responsible personnel and checking with the Project Operation Manual.

It's verified during the on-site verification, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the Project Operation Manual. The procedure are issued and approved by the top management. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training record and work certificate has been checked by the assessment team and it is confirmed that the monitoring personnel are get sufficient train to perform the monitoring.

All the data and documents, either hard copies or electric copies, will be kept for two years after the end of the last crediting period or the last issuance of GS CERs for this Project, whichever occurs later.

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4. SUMMARY OF FINDINGS

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	#1
Raised by:	Denny Xue		
Description of the audit finding		Date:	05/08/2019
The calculation of ER is not conducted in the most conservative manner.			
Project Participant's response		Date:	05/08/2019
The emission reductions are calculated from electricity notes and invoices, which is the resources of real data, further, the sum of electricity to the grid is calculated by Round down calculator, as well as the sum of the electricity from the grid is calculated by Roundup calculator. It is conservative manner.			
Documentation provided as evidence by Project Participant			
Updated MR and ER spreadsheet			
Auditor's assessment comment		Date:	05/08/2019
By checking updated ER spreadsheet and MR, it is confirmed that the final result of ER has been calculated in the most conservative manner.			
Conclusion by Lead Auditor		Date:	05/08/2019
CAR#1 is closed out.			

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5. REFERENCE

LIST OF DOCUMENTS	
S. No.	**Document/Evidence/Reference/Web link, Version, Date**
01	GS Monitoring Report Version 01, 03/07/2019 GS Monitoring Report Version 02, 05/08/2019
02	ER calculation Spreadsheet
03	Project Design Document Version 2.3, 10/05/2019
07	GS Validation Report Version 01.2, 27/05/2016
08	CDM validation and verification standard for project activities version 02.0
09	GS4GG Version 1.1
10	ACM0002 Version 19.0, 31/08/2018
11	Monthly Reading Records (MRRs)
12	Roster of staff
13	Employment contracts
14	Nameplate of equipment and monitoring equipment
15	Training Record
16	Statement from project owner regarding to child labour and fatal and non-fatal occupational injuries
17	Local government public data
18	Payment of employees

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6. VERIFICATION STATEMENT

Applus+ Certification has been engaged by Beijing Ruifang Information Technology Co., Ltd to perform the first periodical verification of the CECIC HKC Danjinghe Wind Farm Power Project (GS Ref. No. 6753).

The management of CECIC HKC Wind Power 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 version 2.3 completed on 10/05/2019 and the applied methodology ACM0002 Version 19.0.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the Gold Standard. 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 operated as planned and described in the project design document and passport approved by the EB and GS;*
- *the monitoring plan is as per the applied methodology;*
- *the monitoring in Monitoring Report is as per the PDD and the monitoring plan approved by the EB and GS;*
- *the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;*
- *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 HKC Danjinghe Wind Farm Project for the monitoring period 08/04/2017 to 30/09/2018 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:

Reporting period:	*From 08/04/2017 to 30/09/2018*
Verified emissions in the above reporting period:	
Leakage emissions	*0 tCO_2 equivalents*
Project emissions	*0 tCO_2 equivalents*
Baseline emissions	*618,153 tCO_2 equivalents*
Emission reductions in 2017	*276,054 tCO_2 equivalents*
Emission reductions in 2018	*342,099 tCO_2 equivalents*
Emission reductions	*618,153 tCO_2 equivalents*

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Date: 06/08/2019

Lead Auditor: Hanshen (Denny) Xue
Tech. Expert: Hanshen (Denny) Xue
Tech. Reviewer: Meng (Simon) Shen

Approver *(Applus+ Certification Business Unit Managing Director)*
Mr. Juan Sendín Caballero

ASSESSMENT TEAM	
Team Leader Hanshen (Denny) Xue	**Technical Reviewer:** Meng (Simon) Shen
Signature: 	Signature: 
Approver: Mr. Juan Sendín Caballero	
Signature: