



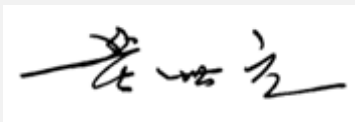
HANGJIN YIHEWUSU PHASE I 49.5MW WIND POWER PROJECT



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Summary:

China Classification Society Certification Company (CCSC), commissioned by Climate Bridge (Shanghai) Ltd., has performed the second periodic verification of Hangjin Yihewusu Phase I 49.5MW Wind Power Project (hereafter referred to as “the project”) covering the monitoring period from 21/03/2016-25/03/2021, on the basis of requirements of Verified Carbon Standard (VCS) Version 4.0.

The project involves the construction and operation of 49.5 MW wind farm project in Hangjin County, Ordos City, in the western Inner Mongolia of China consist of 33 wind turbines with capacities of 1,500 kW each. The project is expected to supply 117,784 MWh of electricity per year to the North China Power Grid (NCPG) and displaces the equivalent power generated by the existing power plants and likely capacity additions within the given grid.

The project has been registered as a VCS project (VCS Project ID: 1128) under VCS Standard Version 3.3 using approved CDM methodology ACM0002 (version 12.3.0) “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, with the first renewable crediting period from 28/12/2011 to 27/12/2021. The VCS monitoring report of this monitoring period has been reviewed against the relevant criteria and decisions by the VERRA Board, including the approved baseline and monitoring methodology ACM0002 (version 12.3.0).

The verification process includes three phases:

- 1) Desk review of documents;
- 2) On-site visit and follow-up interviews;
- 3) Issuance of the final verification report and opinion.

CCSC appointed a qualified verification team in accordance with internal procedures to perform the verification. During the verification, 2 Corrective Action Requests (CARs), no Clarification Request (CL) and no forward action request (FAR) were raised.

As a result of this verification, the verification team confirms that:

- All operations of the project are implemented and installed as planned and described in the validated Project Description;
- The registered monitoring plan is in accordance with the applied approved CDM methodology, i.e., ACM0002 (version 12.3.0) “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”.
- The implementation of monitoring follows the registered monitoring plan.
- The monitoring system is in place and functional;
- The installed equipment for measuring parameters required for calculating emission reductions are calibrated appropriately.

Based on the information observed and evaluated, the verification team confirms that the emission reductions are correctly calculated in the MR (version 2.1 dated 24/06/2021).

In conclusion, it is CCSC's opinion that the project activity “Hangjin Yihewusu Phase I 49.5MW Wind Power Project”, as described in the MR (version 2.1 dated 24/06/2021), meets all relevant requirements for VCS and all relevant host Party criteria. Hence, CCSC is able to certify that the emission reductions from the project during the monitoring period from 21/03/2016 to 25/03/2021 amount to 501,498 tCO₂e and requests issuance of the equivalent VCUs.

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1 INTRODUCTION

1.1 Objective

Climate Bridge (Shanghai) Ltd., has commissioned CCSC to verify and provide a verification statement of the emission reductions of the Hangjin Yihewusu Phase I 49.5MW Wind Power Project (hereafter referred to as “the project”), which is located in Hangjin County, Ordos City, in the western Inner Mongolia of China for the monitoring period from 21/03/2016 to 25/03/2021, based on requirement of VCS Standard (version 4.0)/11/ as well as criteria to provide for consistent project operations, monitoring and reporting.

CCSC as the validation/verification body (VVB) of the project has been accredited as a DOE by UNFCCC and meets the competence requirements as set out in ISO 14065:2020.

Verification of emission reductions from a project activity is the independent review and ex post determination by VVB of the monitored reductions in GHG emissions during the reported monitoring period. The objectives of verification are to:

- a) Ensure that the project activity has been implemented and operated as per the VCS project description (VCS-PD) /3/ and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- b) Ensure that the monitoring report and other supporting documents provided are complete in accordance with the latest applicable version of Registration and Issuance Process /15/ and in accordance with the additional requirements stated by the VERRA;
- c) Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology /12/;

Evaluate the data recorded and stored as per the monitoring methodology /12/.

1.2 Scope and Criteria

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the CCSC. The verification scope covers the relevant documents (e.g. the VCS-PD /3/, the monitoring plan, the VCS monitoring report (VCS-MR) /1//6/, the emission reduction calculation spreadsheet /2/, supporting documents available to the verifier and information collected through performing interviews and during the on-site assessment, VERRA's requirements publicly available, relevant rules, including the host country legislation, etc.) to be independently reviewed, the project geographical locations to be visited on-site, the related project local stakeholders to be interviewed with, and processes that are necessary to acquire objective evidence for the evaluation of the project compliance to the VCS requirements and associated interpretations.

The above verification activities are conducted according to the VERRA's requirements. In doing so, the principles of accuracy and completeness, relevance, reliability and credibility were followed.

The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project.

1.3 Level of Assurance

CCSC has undertaken a reasonable assurance engagement in accordance with VCS Standard (version 4.0) /11/. It requires a reasonable level of assurance in verification that GHG assertions are free of material errors, omissions and misrepresentations. The verification conclusion is based on the VCS-PD /3/, VCS-MR /6/, and supporting evidences made available to the verifier and information collected through performing interviews and during the on-site inspection.

1.4 Summary Description of the Project

The project developed by Inner Mongolia Guodian New Energy Co.,Ltd. is located Hangjin County, Ordos City, in the western Inner Mongolia of China. The geographical coordinates of the centre of the project area are E107.5411°, N40.0589°. The project is to utilize wind resources for electricity generation through the construction of a wind farm with the installation of 33 wind turbines with capacities of 1,500 kW each, which amount to a total installed capacity of 49.5 MW. The project started construction on 26/02/2009, and the operation started on 28/12/2011. The expected operation period of the project is 20 years.

The electricity generated from the project is supplied to the North China Power Grid (NCPG), where geographic and system boundaries can be clearly identified and information on the grid and calculation of baseline emissions is published and public available according to China DNA's Guidance on China Grid Baseline Emission Factors dated on 20th October 2011/17/.

The NCPG is dominated by thermal power plants as per the China Electrical Power Yearbook 2006~2010 /16/. By exporting expected annual electricity of 117,784 MWh, the project achieves greenhouse gas (GHG) emissions reductions by displacing equivalent electricity from fossil fuel-based power plants connected to the grid.

The project has get registered as a CDM project on 07/09/2012 (UNFCCC registration reference number of 7221), issued 189,860 tCO₂e during the first monitoring period from 07/09/2012 to 20/11/2014 and 135,902 tCO₂e during the second monitoring period from 21/11/2014 to 20/03/2016.

According to the VERRA website, the project also has registered as a VCS project on 29/09/2013 (VCS ID 1128), issued 58,339 tCO₂e during the first monitoring period from 28/12/2011 to 06/09/2012. The current verification has been finalized for the monitoring period from 21/03/2016 to 25/03/2021.

During the monitoring period from 21/03/2016 to 25/03/2021, the total GHG emission reductions generated by the project are 501,498 tCO₂e.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using CCSC internal procedures.

CCSC verified the project against the requirements set in VCS/11//13//14//15/, and other relevant VCS requirements.

The following sections outline each step in more detail.

2.2 Document Review

A desk review of the registered VCS-PD /3/, the registered validation report /5/, the previous verification report /20//21/, the applied monitoring methodology /12/, the VCS monitoring report (VCS-MR) /6/ and supporting documents was conducted by the verification team. The

aim of the desk review of the documentation was to verify the completeness of the data and the information presented, to carry out the compliance check of the VCS-MR /6/ with respect to the monitoring plan and the applied methodology /12/. Particular attention was given to the quality of the metering equipment including calibration requirements/18//19/, the monitored data and its evidence, and the emission reduction calculation. The 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 was also conducted.

Appendix B of this report contains a complete list of all documents and proofs reviewed by the verification team.

2.3 Interviews

On 05/04/2021, CCSC performed an on-site assessment at the physical site of the project.

The verification team verified that the actual implementation of the project was as described in the VCS-PD /3/ and VCS-MR /6/. This included the review of the project operation based on the evidence of on-site observation and presented documents.

During the on-site assessment, the verification team has interviewed with key personnel from the project owner (the project participant) and the consultancy.

The assessment content and topics/the persons interviewed at the on-site assessment were provided in the below table.

Date: 05/04/2021	
Interview topics	Interviewed Organizations and persons
--The status of VCS project implementation. -- Any changes of the VCS project. -- The project on-site inspection -- The evidences of construction status and operation of key equipment, parameters monitoring and data processing activities, monitor equipment and calibration. -- Monitoring data. -- Quality Management; organizational structure, responsibilities and competencies; Internal QA/QC Management procedures and document control. -- Compliance with National Laws and Regulations.	- Inner Mongolia Guodian New Energy Co.,Ltd. - Zhang Jiguang, Head of Planning Department - Zhang Suocheng, Head of Taorimu Wind Farm - Sharen Gaowa, Project manager
-- Preparation of Monitoring Report. -- Compliance of the monitoring plan with the monitoring methodology -- Compliance of monitoring with the monitoring plan	- Climate Bridge (Shanghai) Ltd., - Peng Yumei, Project manager

Date: 05/04/2021	
Interview topics	Interviewed Organizations and persons
-- Assessment of data and calculation of GHG emission reductions	

2.4 Site Inspections

The on-site assessment involved following activities,

An assessment of the implementation and operation of the project activity as per the VCS-PD /3/;

A review of information flows for generating, aggregating and reporting the monitoring parameters;

Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the approved monitoring plan;

A cross-check between information provided in the monitoring report /6/ and data from other sources such as operational records or similar data sources;

A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the VCS-PD /3/ and the selected methodology /12/;

A review of calculations and assumptions made in determining the GHG data and emission reductions;

An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

During the verification of a project activity, to identify issues that need to be further elaborated upon, researched or added to in order to confirm that the project activity meets the VERRA's requirements and can achieve credible emission reductions, the verification team will issue a Corrective Action Request (CAR), a Clarification Request (CL) or a Forward Action Request (FAR) depending on different situations.

The objective of this phase of the verification is to resolve issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions prior to CCSC's positive conclusion on the GHG emission reduction calculation.

Findings established during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

A Corrective Action Request (CAR) will be raised if one of the following occurs:

- 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.

A Clarification Request (CL) will be raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

A Forward Action Request (FAR) will be raised, for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

There are 2 CARs that has been raised during the current verification.

2.6 Forward Action Requests

No Forward Action Requests were raised during the current verification.

2.7 Eligibility for Validation Activities

The VVB of “China Classification Society Certification Company” commissioned by the project participant is one of eligible VVBs listed on the VERRA website (<https://verra.org/project/vcs-program/validation-verification/>), and it holds the accreditation for validation/verification for the sectoral scope: “1. Energy (renewable/non-renewable)”, to which the project activity belongs. Therefore, CCSC is eligible for the validation/verification of the project activity.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project was validated by Japan Consulting Institute on 04/09/2012 under CDM scheme for registration /5/. CCSC only performed verification activities on the proposed monitoring period for the project according to the VCS Program Guide.

3.2 Methodology Deviations

No deviation from the methodology is needed to be submitted.

3.3 Project Description Deviations

The first monitoring period of project was verified by RINA Services S.p.A. on 24/09/2013. And RINA Services S.p.A. confirmed the revised monitoring information which is different with the monitoring plan in the registered CDM PDD. The details are as follows:

(a) According to the revised CDM PDD, the name of the substation where the meter Ms and Ms' actually locate is named Kubuqi Substation, instead of the previous Balagong Substation.

(b) In the first monitoring period, the location of the meter MI (unidirectional meter) measured the electricity imported from the 10kV backup power line for emergencies, is located in the on-site substation in the project site, instead of the Yihewusu Substation that was described in the registered PDD. The meter is owned by the grid company and this change of location of meter is beyond project proponents' control. During the first monitoring period, only in the first month after the operation of the project, some electricity (30.060 MWh) was imported from this backup power line, no electricity was imported in other months of the first monitoring period.

In this second monitoring period, there are project description deviations applied to the project activity confirmed by the onsite visit by the CCSC verification team.

The meter M_I ((DSSD566, 0.5s)) measured the electricity imported from the 10kV backup power line for emergency was changed to new meter M_I (DHz719, 0.5s) on 09/11/2018, and the accuracy is not changed and remains 0.5s. In addition, the old MI meter was installed, calibrated and checked in accordance with the JJG 1055-97 technical norm of the calibration of AC watt-hour meters at place of installation during the period from 20/09/2015 to 08/09/2018. In the period from 09/11/2018 to 19/08/2020, the new MI meter was installed, calibrated, and checked in accordance with the national standard the latest version Electricity meter installation technical management code consistent with the registered CDM PDD.

In the registered PD, the crediting period is described as from 28/12/2011 to 06/09/2012. A deviation is requested for the crediting period in the registered PD. The project is registered under VCS Standard Version 3.3 and completed validation before 19/03/2020. thus, it remains eligible to apply the crediting period requirements under VCS Standard Version 3.3 which shall be a maximum of ten years and may be renewed at most twice, so the crediting period of the project deviates from 28/12/2011~06/09/2012 to 28/12/2011~27/12/2021 (twice renewable for a total of 30 years).

According to the information collected during on-site visit and the relevant evidence provided by project owner, CCSC can confirm that the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology, the deviation has been appropriately described and justified in the monitoring report and will be described in all subsequent monitoring reports, and the project remains in compliance with the VCS Program rules.

3.4 Grouped Project

Not applicable as the project activity is not grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

4.1.1 Project Implementation in accordance with the VCS PD

The project has been registered as VCS project activity with the Project ID 1128 (<https://registry.verra.org/app/projectDetail/VCS/1128>). The crediting period is proposed for 10 years (with two renewals) starting on 28/12/2011. This monitoring period is from 21/03/2016 to 25/03/2021, which is compliance with previous monitoring period and the crediting period. This monitoring period is verified in accordance with the VCS Standard Version 4.0 /11/. The project started construction on 26/02/2009, and the operation started on 28/12/2011, and the start date of the project is 28/12/2011. During this monitoring period, the meter MI (DSSD566, 0.5s) was changed to new meter MI (DHZ719, 0.5s) on 09/11/2018. The accuracy is not changed and remains 0.5s.

The project is to utilize wind resources for electricity generation through the construction of a wind farm with the installation of 33 wind turbines with capacities of 1,500 kW each, which amount to a total installed capacity of 49.5 MW in Hangjin County, Ordos City, in the western Inner Mongolia of China. The electricity generated from the project is sold to the North China Power Grid (NCPG). Through the on-site visit, the power generating technology, installed capacity, technical specifications of wind turbine and generator, and power delivering systems indicated in the VCS PD are in place and the project has been operated as per the VCS PD/3/. The verification team confirms the project has been implemented as per the registered VCS PD/3/.

The major technical specifications of the project have been verified during the site visit and listed in the table below and the verification team confirmed they are consistent with the registered PD /3/.

Table 4-1 The main technical parameters of wind turbine and generator

Parameters	Data
Model	WD82-1500
Rated power (kW)	1500
Rotor diameter (m)	82
Cut-in wind speed (m/s)	3
Rated wind speed (m/s)	10.5
Cut-out wind speed (m/s)	25
Quantity	33
Operation Lifetime (y)	20

According to the registered PD /3/ and the emission reductions calculation spreadsheet /2/, the total net electricity export to the North China Power Grid (NCPG) is 559,770.56 MWh during this monitoring period (21/03/2016~25/03/2021, and total 1,831 days). All the data and the calculated process in the emission reductions calculation spreadsheet /2/ have been checked by the verification team and it is correctly and in accordance with both the monthly reading records/7/ and records for sold and purchased electricity/10/. Therefore, the verification team confirmed there are no changes of the project from the validated PD /3/ that cause increase of emission reductions.

Under Section 1.10 of MR, PP need to mention the information on emission trading programs and other binding limits and provide evidence that the GHG emission reductions or removals are not double-counted. Therefore, **CAR-2** was raised. Afterwards, Section 1.10 of the monitoring report has been revised by PP according to the requirements of VCS Monitoring Report Template, v4.0. The verification team has checked the VCS Monitoring report Version 2.1 dated 24/06/2021, and confirmed the information on emission trading programs and other binding limits, consistent with the relevant evidence. Thus, **CAR-2** is closed successfully.

According to the information collected during on-site visit and the relevant evidence provided by project owner, CCSC can confirm that:

- a) No project design change occurred during this monitoring period and the project was implemented in accordance the registered VCS-PD /3/;
- b) The project contributes to sustainable development including: creating job opportunities in the project area, and displacing part of the electricity generated by coal-fired power plants;
- c) The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism that includes GHG allowance trading;
- d) The project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates, during this monitoring period. None of the credits will be claimed in the same period;
- e) The GHG emission reductions generated by the project during this monitoring period (21/03/2016~25/03/2021) will be only claimed under VCS program as VCUs for the project to avoid double counting.

4.1.2 Compliance of monitoring with the monitoring plan

The verification team has assessed the implementation of monitoring by the project owner against the registered monitoring plan. A short summary on the verification of every parameter listed in the monitoring plan and used for emission reduction calculation is provided below:

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in the monitoring plan of PD):	$EG_{exp, M_s, y}$ Export electricity exported to the grid measured by the Ms (Ms' as backup) in year y (MWh)
Measuring frequency:	Continuously measurement
Reporting frequency:	Monthly recorded
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	Electricity meter
Is accuracy of the monitoring equipment as stated in the PD? If the PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes. Accuracy level of monitoring meters is 0.2S as described in the registered PD /3/. For details see Table 4-2.
Calibration frequency /interval:	Periodically as per relevant sectoral standards in China
Is the calibration interval in line with the monitoring plan of the PD? If the PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration:	See Table 4-2
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes. For details see Table 4-2.

If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross-checked with the records for sold electricity in line with the registered VCS-PD /3/.
How were the values in the monitoring report verified?	The verification details have been reported in Section 4.4 of this report.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.
Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PD):	$EG_{imp, M_s, y}$ Imported electricity imported from the grid measured by the Ms (Ms' as backup) in year y (MWh)
Measuring frequency:	Continuously measurement
Reporting frequency:	Monthly recorded
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	Electricity meter
Is accuracy of the monitoring equipment as stated in the PD? If the PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes. Accuracy level of monitoring meters is 0.2S as described in the registered PD /3/. For details see Table 4-2.

Calibration frequency /interval:	Periodically as per relevant sectoral standards in China
Is the calibration interval in line with the monitoring plan of the PD? If the PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration:	See Table 4-2
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes. For details see Table 4-2.
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross-checked with the records for purchased electricity in line with the registered VCS-PD /3/.
How were the values in the monitoring report verified?	The verification details have been reported in Section 4.4 of this report.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.
Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of PD):	$EG_{imp,M_i,y}$ Electricity consumed by the project for emergency measured by M_i in year y (MWh)

Measuring frequency:	Continuously measurement
Reporting frequency:	Monthly recorded
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	Electricity meter
Is accuracy of the monitoring equipment as stated in the PD? If the PD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes. Accuracy level of monitoring meter is 0.5S as described in the registered PD /3/. For details see Table 4-2.
Calibration frequency /interval:	Periodically as per relevant sectoral standards in China
Is the calibration interval in line with the monitoring plan of the PD? If the PD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes.
Company performing the calibration:	See Table 4-2
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes. For details see Table 4-2.
If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross-checked with the records for purchased electricity in line with the registered VCS-PD /3/.
How were the values in the monitoring report verified?	The verification details have been reported in Section 4.4 of this report.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.

In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?

Not applicable.

According to the applied methodology ACM0002 (version 12.3.0) “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, the net electricity supplied to the grid by the project $EG_{\text{facility},y}$ is calculated as $EG_{\text{facility},y} = EG_{\text{exp},Ms,y} - EG_{\text{imp},Ms,y} - EG_{\text{imp},Ml,y}$, which is used for the calculation of baseline emission.

Furthermore, the verification team has verified that the accuracy of measure of the monitoring equipment was set according to the requirements and all calibration procedures were carried out according to the monitoring plan and manufacturer specifications. The calibration information of the monitoring meters/10/ in this monitoring period has been listed in Table 4-2 below. The monitoring equipment has been installed in the project in line with the registered monitoring plan. The metering systems include M_S (SN: 96913470), M_S' (SN: 96867840), M_l (SN of old meter: 07301011037610, SN of new meter: 040120570073), of which M_S and M_S' are installed at the Kubuqi substation in Balagong town, and M_l is installed at the onsite substation. M_S is the main meter and M_S' is the backup meter which measure the amount of electricity supplied to the grid and the amount of electricity imported from the grid. M_l measures the electricity imported from the 10kV backup power supply grid for emergencies. In this second monitoring period, the meter M_l was changed to new meter M_l on 09/11/2018, and the accuracy is not changed and remains 0.5s, but the calibration date of the new M_l in MR(version 1.0) Section 4.2 is not in accordance with the calibration reports supplied by PP. Therefore, **CAR-1** was raised. Afterwards, the calibration information of the new M_l has been revised by PP. The verification team has checked and confirmed that it is corrected in the MR(version 2.1), consistent with the relevant evidence, thus, **CAR-1** is closed successfully. The qualification certificate of the meter calibration entity/22/ was issued by Inner Mongolia Quality and Technology Supervision Bureau on 02/01/2014 and 02/01/2018, and is valid until 01/01/2023.

In summary, the verification team is able to verify that the accuracy the monitoring equipment was set according to the registered monitoring plan/3/ and relevant sectoral standard of China.

Table 4-2 Verified calibration information of monitoring meters

Meter	Type	Accur	Serial	Freque	Calibration	Valid until	Calibrati
-------	------	-------	--------	--------	-------------	-------------	-----------

		acy	number	ncy	date		on Entity
MI	DSSD566 (old meter)	0.5S	07301011037610	Annually	20/09/2015	19/09/2016	Power Metering Centre of Inner Mongolia Electric Power Research Institute
					15/09/2016	14/09/2017	
					09/09/2017	08/09/2018	
					08/09/2018	07/09/2019	
	DHZ719 (new meter)	0.5S	040120570073	Annually	09/11/2018	08/11/2019	
					20/08/2019	19/08/2020	
					19/08/2020	18/08/2021	
M _s	ZMQ202C	0.2S	96913470	Annually	15/05/2015	14/05/2016	
					20/04/2016	19/04/2017	
					17/04/2017	16/04/2018	
					16/04/2018	15/04/2019	
					12/04/2019	11/04/2020	
					10/04/2020	09/04/2021	
M _s '	ZMQ202C	0.2S	96867840	Annually	15/05/2015	14/05/2016	
					20/04/2016	19/04/2017	
					17/04/2017	16/04/2018	

					16/04/2018	15/04/2019	
					12/04/2019	11/04/2020	
					10/04/2020	09/04/2021	

4.2 Safeguards

4.2.1 No Net Harm

By checking the EIA summary and conclusion provided in the registered CDM PDD and 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 CDM PDD (version 2.0, 01/08/2012), the local stakeholder's consultation was done through distributing a one-page questionnaire, which was designed to be easily filled in. 50 copies of questionnaire were distributed, and 46 pieces of reply were received. The respondents are representative in terms of age, occupation and education, so their attitude towards the impacts of the project can therefore be seen as a comprehensive reflection of the attitudes of the residents possibly affected by the project.

The survey showed that the local people supported and agreed with the construction of the project. They believe that the project would have a positive impact on the local economic development and their living conditions, without having negative impacts on the environment and the ecosystem.

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 CDM PDD.

4.3 AFOLU-Specific Safeguards

The project is not AFOLU project, and thus this section is not applicable for the project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

4.4.1 Parameters and information flow

The parameters required by the monitoring plan and the way CCSC has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the monitoring report are described below:

Parameters monitored ex-post:

$$EG_{facility,y} = EG_{net,M_s,y} - EG_{imp,M_1,y}$$

$$EG_{net,M_s,y} = EG_{exp,M_s,y} - EG_{imp,M_s,y}$$

Where:

- 1) $EG_{facility,y}$ = Net electricity exported to the Grid by the project in year y (to calculate ER) (MWh);
- 2) $EG_{net,M_s,y}$ = Net electricity supplied to the grid measured by the M_s (M_s' as backup) in year y (MWh);
- 3) $EG_{exp,M_s,y}$ = Export electricity exported to the grid measured by the M_s (M_s' as backup) in year y (MWh);
- 4) $EG_{imp,M_s,y}$ = Imported electricity imported from the grid measured by the M_s (M_s' as backup) in year y (MWh);
- 5) $EG_{imp,M_1,y}$ = Electricity consumed by the project for emergency measured by M_1 in year y (MWh).

According to the VCS-MR /6/ of the project and the registered VCS-PD /3/, The electricity exported ($EG_{exp,M_s,y}$) and imported ($EG_{imp,M_s,y}$ and $EG_{imp,M_1,y}$) are both continuously monitored through the meter which is both agreed by the grid company and the project owner. The net electricity is the difference of the electricity export and the electricity import, i.e. $EG_{facility,y} = EG_{exp,M_s,y} - EG_{imp,M_s,y} - EG_{imp,M_1,y}$. The daily and monthly monitoring records of the project have been verified during onsite assessment.

The verification team has cross-checked $EG_{exp,M_s,y}$, $EG_{imp,M_s,y}$ and $EG_{imp,M_1,y}$ in the emission reductions calculation spreadsheet /2/ with the records for sold and purchased electricity/8/ of the project from the grid company. By the onsite assessment, the values in emission reductions calculation spreadsheet /2/ is in line with the records for sold and purchased electricity/8/ during this period.

Parameter determined ex-ante:

$EF_{grid,CM,y}$: Combined margin emission factor for grid connected power generation in year y, i.e. NCPG.

According to the registered PD /3/, the $EF_{grid,CM,y}$ is ex-ante determined as 0.8959 tCO₂/MWh for NCPG over the first crediting period. The emission factors used in this monitoring report have been verified against the registered VCS-PD /3/ and found them to be consistent.

4.4.2 Assessment Data and Calculation

It was verified that the project is a new wind power plant. Therefore, the project emission of the project is zero under ACM0002 (version 12.3.0) /12/ (PEy=0).

The project is a new wind power plant. Therefore, no leakage needs to be considered for the project activity according to the methodology /12/. (LEy=0).

Since the project emission and the leakage emission has been justified as zero under ACM0002 (version 12.3.0) /12/, the calculation of the emission reductions simply involves the calculation of the baseline emissions.

$$\text{Formula 1: } ERY = BEy - 0 - 0 = EG_{\text{facility},y} \times EF_{\text{grid},CM,y} \quad (1)$$

Where:

ERY: Emission reductions in year y (tCO₂/yr)

BEy: The baseline emissions (tCO₂/yr)

EG_{facility,y}: Net electricity exported to the Grid by the project in year y (MWh)

EF_{grid,CM,y}: Combined margin emission factor for grid connected power generation in year y.

The net electricity delivered to the grid (EG_{facility,y}) is the difference between the electricity exported to the grid (EG_{exp,M,y}) and the electricity imported from the grid (EG_{imp,M,y} and EG_{imp,MI,y}), as follow:

$$\text{Formula 2: } EG_{\text{facility},y} = EG_{\text{exp,M},y} - EG_{\text{imp,M},y} - EG_{\text{imp,MI},y} \quad (2)$$

Following the approach described in section 4.4.1 above, EG_{exp,M,y}, EG_{imp,M,y} and EG_{imp,MI,y} were verified as below:

Table 4-3 The verified EG_{exp,M,y} of the project (Unit: MWh)

Period		EG _{exp,M,y} (MWh)		
		Data monitored	Data on the records for sold electricity	Conservative value
21/03/2016	20/04/2016	10,317.69	10,317.69	10,317.69
21/04/2016	20/05/2016	12,307.37	12,307.37	12,307.37
21/05/2016	20/06/2016	8,232.97	8,232.97	8,232.97
21/06/2016	20/07/2016	8,801.50	8,801.50	8,801.50

21/07/2016	20/08/2016	7,826.31	7,826.31	7,826.31
21/08/2016	20/09/2016	5,463.50	5,463.50	5,463.50
21/09/2016	20/10/2016	8,753.47	8,753.47	8,753.47
21/10/2016	20/11/2016	11,865.75	11,865.75	11,865.75
21/11/2016	20/12/2016	4,125.75	4,125.75	4,125.75
21/12/2016	31/12/2016	4,090.54	4,090.54	4,090.54
Subtotal (2016)		81,784.85	81,784.85	81,784.85
01/01/2017	20/01/2017	7,437.35	7,437.35	7,437.35
21/01/2017	20/02/2017	7,763.28	7,763.28	7,763.28
21/02/2017	20/03/2017	7,184.52	7,184.52	7,184.52
21/03/2017	20/04/2017	12,545.31	12,545.31	12,545.31
21/04/2017	20/05/2017	10,470.88	10,470.88	10,470.88
21/05/2017	20/06/2017	7,638.62	7,638.62	7,638.62
21/06/2017	20/07/2017	8,382.99	8,382.99	8,382.99
21/07/2017	20/08/2017	6,363.08	6,363.08	6,363.08
21/08/2017	20/09/2017	8,648.87	8,648.87	8,648.87
21/09/2017	20/10/2017	7,789.31	7,789.31	7,789.31
21/10/2017	20/11/2017	11,597.25	11,597.25	11,597.25
21/11/2017	20/12/2017	14,025.63	14,025.63	14,025.63
21/12/2017	31/12/2017	4,761.40	4,761.40	4,761.40
Subtotal (2017)		114,608.49	114,608.49	114,608.49
01/01/2018	20/01/2018	8,657.10	8,657.10	8,657.10
21/01/2018	20/02/2018	9,546.37	9,546.37	9,546.37
21/02/2018	20/03/2018	10,867.19	10,867.19	10,867.19

21/03/2018	20/04/2018	13,641.13	13,641.13	13,641.13
21/04/2018	20/05/2018	9,576.68	9,576.68	9,576.68
21/05/2018	20/06/2018	10,437.88	10,437.88	10,437.88
21/06/2018	20/07/2018	6,515.69	6,515.69	6,515.69
21/07/2018	20/08/2018	5,983.18	5,983.18	5,983.18
21/08/2018	20/09/2018	3,726.44	3,726.44	3,726.44
21/09/2018	20/10/2018	5,301.63	5,301.63	5,301.63
21/10/2018	20/11/2018	11,545.25	11,545.25	11,545.25
21/11/2018	20/12/2018	10,957.56	10,957.56	10,957.56
21/12/2018	31/12/2018	2,448.61	2,448.61	2,448.61
Subtotal (2018)		109,204.71	109,204.71	109,204.71
01/01/2019	20/01/2019	4,452.01	4,452.01	4,452.01
21/01/2019	20/02/2019	10,415.38	10,415.38	10,415.38
21/02/2019	20/03/2019	7,052.81	7,052.81	7,052.81
21/03/2019	20/04/2019	9,876.88	9,876.88	9,876.88
21/04/2019	20/05/2019	12,133.93	12,133.93	12,133.93
21/05/2019	20/06/2019	8,478.94	8,478.94	8,478.94
21/06/2019	20/07/2019	7,287.81	7,287.81	7,287.81
21/07/2019	20/08/2019	8,043.19	8,043.19	8,043.19
21/08/2019	20/09/2019	7,531.88	7,531.88	7,531.88
21/09/2019	20/10/2019	6,870.62	6,870.62	6,870.62
21/10/2019	20/11/2019	13,320.50	13,320.50	13,320.50
21/11/2019	20/12/2019	10,767.19	10,767.19	10,767.19
21/12/2019	31/12/2019	2,524.21	2,524.21	2,524.21

Subtotal (2019)		108,755.35	108,755.35	108,755.35
01/01/2020	20/01/2020	4,589.48	4,589.48	4,589.48
21/01/2020	20/02/2020	7,404.93	7,404.93	7,404.93
21/02/2020	20/03/2020	12,430.38	12,430.38	12,430.38
21/03/2020	20/04/2020	6,765.37	6,765.37	6,765.37
21/04/2020	20/05/2020	11,686.63	11,686.63	11,686.63
21/05/2020	20/06/2020	11,454.56	11,454.56	11,454.56
21/06/2020	20/07/2020	8,391.38	8,391.38	8,391.38
21/07/2020	20/08/2020	9,859.62	9,859.62	9,859.62
21/08/2020	20/09/2020	7,799.09	7,799.09	7,799.09
21/09/2020	20/10/2020	6,896.91	6,896.91	6,896.91
21/10/2020	20/11/2020	9,238.13	9,238.13	9,238.13
21/11/2020	20/12/2020	8,370.06	8,370.06	8,370.06
21/12/2020	31/12/2020	5,908.54	5,908.54	5,908.54
Subtotal (2020)		110,795.08	110,795.08	110,795.08
01/01/2021	25/01/2021	13,428.51	13,428.51	13,428.51
01/02/2021	22/02/2021	12,767.59	12,767.59	12,767.59
01/03/2021	25/03/2021	10,225.26	10,225.26	10,225.26
Subtotal (2021)		36,421.36	36,421.36	36,421.36
Total (21/03/2016-25/03/2021)		561,569.84	561,569.84	561,569.84

Table 4-4 The verified $EG_{imp,Ms,y}$ of the project (Unit: MWh)

Period	$EG_{imp,Ms,y}$ (MWh)		
	Data monitored	Data on the records for	Conservative value

			purchased electricity	
21/03/2016	20/04/2016	16.72	16.72	16.72
21/04/2016	20/05/2016	12.01	12.01	12.01
21/05/2016	20/06/2016	18.70	18.70	18.70
21/06/2016	20/07/2016	10.45	10.45	10.45
21/07/2016	20/08/2016	18.23	18.23	18.23
21/08/2016	20/09/2016	41.55	41.55	41.55
21/09/2016	20/10/2016	31.98	31.98	31.98
21/10/2016	20/11/2016	21.44	21.44	21.44
21/11/2016	20/12/2016	45.96	45.96	45.96
21/12/2016	31/12/2016	11.32	11.32	11.32
Subtotal (2016)		228.36	228.36	228.36
01/01/2017	20/01/2017	20.58	20.58	20.58
21/01/2017	20/02/2017	49.63	49.63	49.63
21/02/2017	20/03/2017	26.69	26.69	26.69
21/03/2017	20/04/2017	11.38	11.38	11.38
21/04/2017	20/05/2017	14.54	14.54	14.54
21/05/2017	20/06/2017	19.17	19.17	19.17
21/06/2017	20/07/2017	24.59	24.59	24.59
21/07/2017	20/08/2017	15.39	15.39	15.39
21/08/2017	20/09/2017	19.45	19.45	19.45
21/09/2017	20/10/2017	26.17	26.17	26.17
21/10/2017	20/11/2017	24.75	24.75	24.75
21/11/2017	20/12/2017	22.67	22.67	22.67

21/12/2017	31/12/2017	10.56	10.56	10.56
Subtotal (2017)		285.57	285.57	285.57
01/01/2018	20/01/2018	19.21	19.21	19.21
21/01/2018	20/02/2018	53.27	53.27	53.27
21/02/2018	20/03/2018	15.34	15.34	15.34
21/03/2018	20/04/2018	7.73	7.73	7.73
21/04/2018	20/05/2018	20.21	20.21	20.21
21/05/2018	20/06/2018	12.01	12.01	12.01
21/06/2018	20/07/2018	22.91	22.91	22.91
21/07/2018	20/08/2018	27.65	27.65	27.65
21/08/2018	20/09/2018	18.87	18.87	18.87
21/09/2018	20/10/2018	29.47	29.47	29.47
21/10/2018	20/11/2018	15.08	15.08	15.08
21/11/2018	20/12/2018	35.95	35.95	35.95
21/12/2018	31/12/2018	19.36	19.36	19.36
Subtotal (2018)		297.06	297.06	297.06
01/01/2019	20/01/2019	35.20	35.20	35.20
21/01/2019	20/02/2019	46.55	46.55	46.55
21/02/2019	20/03/2019	31.56	31.56	31.56
21/03/2019	20/04/2019	21.89	21.89	21.89
21/04/2019	20/05/2019	10.63	10.63	10.63
21/05/2019	20/06/2019	21.89	21.89	21.89
21/06/2019	20/07/2019	18.21	18.21	18.21
21/07/2019	20/08/2019	23.96	23.96	23.96

21/08/2019	20/09/2019	24.81	24.81	24.81
21/09/2019	20/10/2019	35.69	35.69	35.69
21/10/2019	20/11/2019	22.63	22.63	22.63
21/11/2019	20/12/2019	47.42	47.42	47.42
21/12/2019	31/12/2019	46.76	46.76	46.76
Subtotal (2019)		387.20	387.20	387.20
01/01/2020	20/01/2020	85.03	85.03	85.03
21/01/2020	20/02/2020	56.35	56.35	56.35
21/02/2020	20/03/2020	24.05	24.05	24.05
21/03/2020	20/04/2020	36.43	36.43	36.43
21/04/2020	20/05/2020	22.69	22.69	22.69
21/05/2020	20/06/2020	28.66	28.66	28.66
21/06/2020	20/07/2020	32.33	32.33	32.33
21/07/2020	20/08/2020	28.24	28.24	28.24
21/08/2020	20/09/2020	41.86	41.86	41.86
21/09/2020	20/10/2020	40.09	40.09	40.09
21/10/2020	20/11/2020	43.45	43.45	43.45
21/11/2020	20/12/2020	72.08	72.08	72.08
21/12/2020	31/12/2020	4.07	4.07	4.07
Subtotal (2020)		515.33	515.33	515.33
01/01/2021	25/01/2021	9.24	9.24	9.24
01/02/2021	22/02/2021	27.72	27.72	27.72
01/03/2021	25/03/2021	45.70	45.70	45.70
Subtotal (2021)		82.66	82.66	82.66

Total (21/03/2016-25/03/2021)	1,796.18	1,796.18	1,796.18
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Table 4-5 The verified $EG_{imp,MI,y}$ of the project (Unit: MWh)

Period		$EG_{imp,MI,y}$ (MWh)		
		Data monitored	Data on the records for purchased electricity	Conservative value
21/03/2016	20/04/2016	0	0	0
21/04/2016	20/05/2016	0	0	0
21/05/2016	20/06/2016	0	0	0
21/06/2016	20/07/2016	0	0	0
21/07/2016	20/08/2016	0	0	0
21/08/2016	20/09/2016	0	0	0
21/09/2016	20/10/2016	0	0	0
21/10/2016	20/11/2016	0	0	0
21/11/2016	20/12/2016	0	0	0
21/12/2016	31/12/2016	0	0	0
Subtotal (2016)		0	0	0
01/01/2017	20/01/2017	0	0	0
21/01/2017	20/02/2017	0	0	0
21/02/2017	20/03/2017	0	0	0
21/03/2017	20/04/2017	0	0	0
21/04/2017	20/05/2017	0	0	0
21/05/2017	20/06/2017	0	0	0
21/06/2017	20/07/2017	0	0	0

21/07/2017	20/08/2017	0	0	0
21/08/2017	20/09/2017	0	0	0
21/09/2017	20/10/2017	0	0	0
21/10/2017	20/11/2017	0	0	0
21/11/2017	20/12/2017	0	0	0
21/12/2017	31/12/2017	0	0	0
Subtotal (2017)		0	0	0
01/01/2018	20/01/2018	0	0	0
21/01/2018	20/02/2018	0	0	0
21/02/2018	20/03/2018	0	0	0
21/03/2018	20/04/2018	0	0	0
21/04/2018	20/05/2018	0	0	0
21/05/2018	20/06/2018	0	0	0
21/06/2018	20/07/2018	0	0	0
21/07/2018	20/08/2018	0	0	0
21/08/2018	20/09/2018	0	0	0
21/09/2018	20/10/2018	0	0	0
21/10/2018	20/11/2018	0	0	0
21/11/2018	20/12/2018	0	0	0
21/12/2018	31/12/2018	0	0	0
Subtotal (2018)		0	0	0
01/01/2019	20/01/2019	0	0	0
21/01/2019	20/02/2019	0	0	0
21/02/2019	20/03/2019	0	0	0

21/03/2019	20/04/2019	0	0	0
21/04/2019	20/05/2019	0	0	0
21/05/2019	20/06/2019	0	0	0
21/06/2019	20/07/2019	0	0	0
21/07/2019	20/08/2019	0	0	0
21/08/2019	20/09/2019	0	0	0
21/09/2019	20/10/2019	1.17	1.17	1.17
21/10/2019	20/11/2019	0	0	0
21/11/2019	20/12/2019	0	0	0
21/12/2019	31/12/2019	0	0	0
Subtotal (2019)		1.17	1.17	1.17
01/01/2020	20/01/2020	0	0	0
21/01/2020	20/02/2020	0	0	0
21/02/2020	20/03/2020	0	0	0
21/03/2020	20/04/2020	0	0	0
21/04/2020	20/05/2020	0	0	0
21/05/2020	20/06/2020	0	0	0
21/06/2020	20/07/2020	0	0	0
21/07/2020	20/08/2020	0	0	0
21/08/2020	20/09/2020	1.93	1.93	1.93
21/09/2020	20/10/2020	0	0	0
21/10/2020	20/11/2020	0	0	0
21/11/2020	20/12/2020	0	0	0
21/12/2020	31/12/2020	0	0	0

Subtotal (2020)		1.93	1.93	1.93
01/01/2021	25/01/2021	0	0	0
01/02/2021	22/02/2021	0	0	0
01/03/2021	25/03/2021	0	0	0
Subtotal (2021)		0	0	0
Total (21/03/2016-25/03/2021)		3.10	3.10	3.10

Therefore, the net electricity supply ($EG_{\text{facility}, y}$) is calculated as:

Table 4-6 The verified $EG_{\text{facility}, y}$ of the Project (Unit: MWh)

Period	$EG_{\text{exp}, \text{Ms}, y}$ (MWh)	$EG_{\text{imp}, \text{Ms}, y}$ (MWh)	$EG_{\text{imp}, \text{MI}, y}$ (MWh)	$EG_{\text{facility}, y}$ (MWh)
	a	b	c	d=a-b-c
21/03/2016~31/12/2016	81,784.85	228.36	0	81,556.49
01/01/2017~31/12/2017	114,608.49	285.57	0	114,322.92
01/01/2018~31/12/2018	109,204.71	297.06	0	108,907.65
01/01/2019~31/12/2019	108,755.35	387.20	1.17	108,366.98
01/01/2020~31/12/2020	110,795.08	515.33	1.93	110,277.82
01/01/2021~25/03/2021	36,421.36	82.66	0	36,338.70
Total (21/03/2016-25/03/2021)	561,569.84	1,796.18	3.10	559,770.56

The verification team has confirmed the emission reductions of the project have been conservatively calculated in line with above mentioned Formula 1&2 in the emission reduction calculation spreadsheet /2/. The verification team has checked and confirmed the emission reduction is to be correctly accounted. The total emission reduction is as follow:

Table 4-6 Verified Emission Reductions during this monitoring period

Period	$EG_{\text{facility}, y}$ (MWh)	EF (tCO ₂ /MWh)	BE _y (tCO _{2e})	PE _y (tCO _{2e})	LE _y (tCO _{2e})	ER _y (tCO _{2e})
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Year	From	To	A	B	C=A*B	D	E	F=C-D-E
2016	21/03/2016	31/12/2016	81,556.49	0.8959	73,066	0	0	73,066
2017	01/01/2017	31/12/2017	114,322.92	0.8959	102,422	0	0	102,422
2018	01/01/2018	31/12/2018	108,907.65	0.8959	97,570	0	0	97,570
2019	01/01/2019	31/12/2019	108,366.98	0.8959	97,086	0	0	97,086
2020	01/01/2020	31/12/2020	110,277.82	0.8959	98,798	0	0	98,798
2021	01/01/2021	25/03/2021	36,338.70	0.8959	32,556	0	0	32,556
Total			559,770.56	/	501,498	0	0	501,498

Comparison of ERs

Based on the above assessment, CCSC can conclude that the emission reduction during the monitoring period from 21/03/2016 to 25/03/2021 have been quantified correctly in accordance with the project description and applied methodology /12/, and the emission reduction during this monitoring period is verified as 501,498 tCO₂e. Compared with the estimated emission reductions under the same days of 1,831 from 21/03/2016 to 25/03/2021 in the registered VCS-PD /3/, 529,335 (=105,520*1,831/365) tCO₂e, the verified emission reduction is 5.26% less than the estimated value. CCSC considers the value of verified emission reduction is conservative.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The evidences used to determine the GHG emission reductions are assessed as follows:

Assessment of the Evidence Quality	
Parameters monitored	1) $EG_{exp,Ms,y}$

	2) $EG_{imp,Ms,y}$ 3) $EG_{imp,MI,y}$
Monitoring method	The quantity of electricity exported to the grid ($EG_{exp,Ms,y}$) and electricity imported from the grid ($EG_{imp,Ms,y}$ and $EG_{imp,MI,y}$) by the project are measured by meters.
Measuring/Reading/Recording frequency	The parameters are continuously measured and monthly recorded.
Calibration frequency/ interval	See Table 4-2 Verified calibration information of monitoring meter. Through on-site observation and checking the calibration records of meters, the team confirmed that all the monitoring meters meet the rated accuracy level and the calibration frequency fulfils the requirement as described in the monitoring plan.
Calibration cover the monitoring period	The verification team confirms that the validity period of all conducted calibrations covers this monitoring period from 21/03/2016 to 25/03/2021.
Data reported	Through cross checking with the records for sold and purchased electricity/8/, the monitored data can be confirmed as acceptable to calculate emission reductions.

In conclusion, all necessary documentation is collected, referenced and is easily accessible in hard-copy or electronic format. The data pertaining to the monitored parameters are maintained in the identified internal records and consistent with the values stated in the Monitoring Report /6/ and ER calculation spreadsheet /2/. Monitoring data have been cross-checked with the records for sold and purchased electricity.

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

CCSC has carried out the verification of the project “Hangjin Yihewusu Phase I 49.5MW Wind Power Project”. The verification was performed based on the requirements set by Voluntary Carbon Standard (VCS) Version 4.0 /11/, as well as criteria given to provide for consistent project operations, monitoring and reporting. This verification covers the period from 21/03/2016 to 25/03/2021 inclusive.

In the course of the verification 2 Corrective Action Requests (CARs), no Clarification Request (CL) and no forward request (FAR) was raised. The verification is based on the VCS-MR /6/, the VCS-PD /3/, ER calculation spread sheet /2/ and supporting documents available to CCSC.

As the result of the verification, CCSC confirms that:

- The project has been implemented and operated as per the registered VCS-PD /3/ and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- The VCS-MR /6/ and other supporting documents provided are complete in accordance with the latest applicable version of the VCS Registration & Issuance Process /15/ and in accordance with the additional requirements stated by the VERRA;
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology i.e. ACM0002 (version 12.3.0) /12/;
- The GHG emission reductions are calculated without material misstatements and in a conservative and appropriate manner.

Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CCSC confirms the following statement:

Verification period: From 21/03/2016 to 25/03/2021

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)
21/03/2016~31/12/2016	73,066	0	0	73,066
01/01/2017~31/12/2017	102,422			102,422
01/01/2018~31/12/2018	97,570	0	0	97,570
01/01/2019~31/12/2019	97,086	0	0	97,086
01/01/2020~31/12/2020	98,798	0	0	98,798
01/01/2021~25/03/2021	32,556	0	0	32,556
Total	501,498	0	0	501,498

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CCSC	China Classification Society Certification Company
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CCSC	China Classification Society Certification Company
DOE	Designated Operational Entity
DNA	Designated National Authority
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
ETN	Electricity Transaction Note
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
MR	Monitoring Report
NCPG	North China Power Grid
PD	Project Description
PDD	Project Design Document
PP	Project Proponent
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation/Verification Body
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCE

Documents provided by the Project Participant and relevant background documents have been reviewed or referenced for the periodic verification conclusions.

Ref no.	Reference Document
/1/	Climate Bridge (Shanghai) Ltd., VCS Monitoring report Version 1.0 dated 09/03/2021
/2/	Climate Bridge (Shanghai) Ltd., ER calculation spreadsheet Version 1.0 dated 09/03/2021
/3/	Climate Bridge Ltd. The registered VCS-PD dated 24/09/2013
/4/	Climate Bridge Ltd. The registered CDM PDD Version 2.0 dated 01/08/2012
/5/	Japan Consulting Institute Registered Validation Report No. JCI-CDM-VAL-11/140 dated 04/09/2012
/6/	Climate Bridge (Shanghai) Ltd., VCS Monitoring report Version 2.1 dated 24/06/2021
/7/	Monthly reading records of the electricity measured by meter during this monitoring period
/8/	Records for sold and purchased electricity issued by the grid company during this monitoring period
/9/	Meter replacement record
/10/	Calibration reports of the meters
/11/	VERRA, VCS Standard, version 4.0
/12/	CDM Executive Board, ACM0002 (version 12.3.0)
/13/	VERRA, Monitoring Report Template Form Version 4.0
/14/	VERRA, VCS Program Guide Version 4.0
/15/	VERRA, Registration & Issuance Process Version 4.0

/16/	China Electrical Power Yearbook 2006~2010
/17/	Chinese DNA, 2011 Baseline Emission Factors for Regional Power Grids in China
/18/	China National Economic Trading Commission, Technical Administrative Code of Electric Energy Metering, DL/T 448-2016
/19/	The State Bureau of Quality and Technical Supervision, Technical Norm of the Calibration of AC Watthour Meters at place of installation, JJG 1055-1997
/20/	China Certification Center, Inc., Verification Report for 2 nd CER issuing Version 01 dated 31/05/2016
/21/	RINA Services S.p.A., Verification Report for 1 st VCU issuing Version 1.2 dated 24/09/2013
/22/	Qualification certificate of the meter calibration entity, issued on 02/01/2014 and 02/01/2018, and is valid until 01/01/2023.

APPENDIX C: RESOLUTION OF CLARIFICATION REQUESTS AND CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Table 1. CL from this verification

CL ID	N/A	Section no.	N/A	Date: N/A
Description of CL				
N/A				
Project participant response				Date: N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A
N/A				

Table 2. CAR from this verification

CAR ID	CAR-1	Section no.	4.2	Date: 12/04/2021
Description of CAR				
The meter of M _I was replaced by a new one on 09/11/2018 during this monitoring period, but the validity period of the meter for data monitoring cannot cover the whole monitoring period.				
Project participant response				Date: 13/04/2021
The whole validity period of the new meter during this monitoring period has been added in the updated MR.				
Documentation provided by project participant				
VCS Monitoring report Version 2.1 dated 24/06/2021				

DOE assessment	Date: 25/06/2021
The verification team has checked the VCS Monitoring report Version 2.1 dated 24/06/2021 and calibration reports of M _i supplied by PP, and confirmed that the validity period of M _i covers the whole monitoring period, consistent with the calibration reports. Therefore, CAR-1 is closed successfully.	

CAR ID	CAR-2	Section no.	1.10	Date: 24/06/2021
Description of CAR				
Under Section 1.10 of MR, PP need to mention the information on emission trading programs and other binding limits and provide evidence that the GHG emission reductions or removals are not double-counted.				
Project participant response				Date: 24/06/2021
Section 1.10 of the monitoring report has been revised according to the requirements of VCS Monitoring Report Template, v4.0.				
Documentation provided by project participant				
VCS Monitoring report Version 2.1 dated 24/06/2021				
DOE assessment				Date: 25/06/2021
The verification team has checked the VCS Monitoring report Version 2.1 dated 24/06/2021, and confirmed the information on emission trading programs and other binding limits. Therefore, CL-2 is closed successfully.				

Table 3. FAR from this verification

FAR ID	N/A	Section No.	N/A	Date: N/A
Description of FAR				
N/A				
Project participant response				Date: N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A

N/A
