
VERIFICATION REPORT

Yuxian Baiyantuo 49.3 MW Wind Power Project

Monitoring period: 16/12/2010 - 31/05/2011

SGS Climate Change Programme

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Summary

SGS United Kingdom Ltd has performed the verification of the project Yuxian Baiyantuo 49.3 MW Wind Power Project (SGS Ref. No.: CCP.VOL0849 / UNFCCC Ref. No: 4817) against VCS Standard Version 3.1. The verification includes confirming the implementation of the monitoring plan of the CDM PDD Version 03, dated 16/05/2011 and the application of the monitoring methodology as per ACM0002 Version 12.1.0, dated 26/11/2010 and the gap validation for the project's compliance with the VCS rules. A site visit was conducted to verify the data submitted in the monitoring report.

The project install 58 sets of wind turbine, each of which has a rated installed capacity of 850 kW, providing a total installed capacity of 49.3 MW. The annual output of the project is estimated to be 104,713.2 MWh. As a renewable wind power project, the project generates greenhouse gas (GHG) emission reductions by displacing power from the North China Power Grid (NCPG) which is of high-growth and dominated by fossil-fuel fired power plants.

The report describes a total of 1 finding and has been satisfactorily closed out, which include:

- 0 Corrective Action Requests (CARs);
- 1 Clarification Requests (CLs);
- 0 Forward Action Requests (FARs); and

SGS confirms that the project is implemented in accordance with the validated VCS Project Description. The monitoring system is in place and the emission reductions are calculated without material misstatements. SGS's opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and validated project baseline and monitoring and its associated documents. Based on the information seen and evaluated, SGS confirms that the implementation of the project has resulted in **59,120 tCO₂e** emission reductions during period 16/12/2010 up to 31/05/2011 (4,124 tCO₂e for the period from 16/12/2010 to 31/12/2010; 54,996 tCO₂e for the period from 01/01/2011 to 31/05/2011).

Abbreviations

AFOLU	Agriculture, Forestry and Other Land Use
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CNAS	China National Accreditation Service
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DCS	Distributed Control System
DNA	Designated National Authority
DOE	Designated Operational Entity
DRRs	Daily Reading Records
ERs	Emission Reductions
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse Gas(es)
HECIC	Hebei Construction & Investment Group Co., Ltd
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MP	Monitoring Plan
MPRs	Monthly Production Reports
MR	Monitoring Report
NCPG	North China Power Grid
PD	Project Description
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
SGS	SGS United Kingdom Ltd
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Voluntary Carbon Standard
VCSA	Voluntary Carbon Standard Association
VCUs	Voluntary Carbon Units
VVM	Validation and Verification Manual

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1. Introduction

1.1 Objective

SGS United Kingdom Ltd has been contracted by Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. to perform an independent verification of its project Yuxian Baiyantuo 49.3 MW Wind Power Project against VCS Standard Version 3.1. The verifiers have reviewed the GHG data collected to date for the period between 16/12/2010 and 31/05/2011.

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the project has resulted in emission reductions as declared by the organisation or GHG project's GHG assertion;
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

1.2 Scope and Criteria

This engagement covers verification of emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of Yuxian Baiyantuo 49.3 MW Wind Power Project.

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. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for the defined reporting period.

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

1.3 Level of assurance

The level of assurance of the verification report is reasonable assurance engagements as selected by the Client. Materiality for the project is 5%.

1.4 Summary Description of the Project

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

Title of Project Activity:	Yuxian Baiyantuo 49.3 MW Wind Power Project
UNFCCC Reference ID:	4817
Monitoring Period Covered in this Report	16/12/2010 to 31/05/2011
Project Proponent (s)	Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. (China - host)
Location of the Project Activity:	Longquansi Village, Liutaizi County, Xingcheng City, Liaoning Province, People's Republic of China

The project install 58 sets of wind turbine, each of which has a rated installed capacity of 850 kW, providing a total installed capacity of 49.3 MW. The annual output of the project is estimated to be 104,713.2 MWh and deliver to North China Power Grid (NCPG). The project was put into commercial operation on 16/12/2010 (i.e. the project start date).

2. Validation Process, Findings and Conclusion

2.1 Validation Process

Method and Criteria:

The project was registered as a CDM project on 01/06/2011. According to section 3.12.4 of VCS Standard Version 3.1, a further validation shall be completed of the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template.

Document Review:

The validated CDM PDD, the monitoring report submitted by the client and additional background documents related to the project design were reviewed. A complete list of all documents reviewed is included in Section 6 of this report.

Interview:

On 01/11/2011, all members of the assessment team performed interviews with station master from Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. to confirm the information in the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template.

Persons Interviewed:

Mr. Bai Pengyu, Hebei Construction Investment Yuzhou Wind Energy Co., Ltd.

Mr. Du Guang, HECIC New-energy Co., Ltd

Mr. Zhou Xin, HECIC New-energy Co., Ltd

Site Inspection:

The onsite inspections were conducted by all members of the assessment team on 01/11/2011 to verify the physical situation and complement the desk based assessment of the relevant gaps between CDM and VCS Version 3.1.

Resolution of Any Material Discrepancy:

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

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

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

- I. The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- II. The VCS requirements have not been met;
- III. There is a risk that emission reductions cannot be monitored or calculated.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

A Forward Action Request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.

2.2 Validation Findings

2.2.1 Gap Validation

The project was registered as a CDM project on 01/06/2011 (/3/). According to section 3.12.4 of VCS Standard Version 3.1 (/28/), a further validation shall be completed of the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template (/30/).

The cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template were discussed in Attachment of MR version 02 (/4/).

Validation of the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template pursuant to Section 3.12.4 of VCS Standard Version 3.1 and Section 3.1.5 of Registration and Issuance Process VCS Version 3.1. Requirement set out in Section 3.12.4 of VCS Version 3.1 and Section 3.1.5 of Registration and Issuance Process VCS Version 3.1 is fulfilled.

The cover page:

The project title has been validated to be the same as the registered CDM project and the project name indicated in the Letter of Approval (LoA) from China (/26/). The version, date of issue, the entity preparing the relevant sections of PD, and the corresponding contact information has been validated to be correct.

Section 1.2 Sectoral Scope and Project Type: Through the onsite visit, interviewing the project owner and reviewing the project design, it was confirmed that the project was implemented to generate electricity using renewable wind resources and replace the electricity which would otherwise be generated by grid connected power plants. Therefore, it was confirmed that the sectoral scope is 1 energy industries. The project does not involve additional instances that may be added subsequent to project validation. It was confirmed that the project is not a grouped project.

Section 1.3 Project Proponent:

The project proponent is Hebei Construction Investment Yuzhou Wind Energy Co., Ltd.

And the contact information is:

Contract Name:

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The above information is corrected reported in the MR and have been confirmed to be correct by interviewing the project proponent and reviewing the Business license (/25/).

Section 1.5 Project Start Date:

The indicated project start date is 16/12/2010, which is confirmed to be the date on which the project began generating GHG emission reductions by checking the operation log (/10/).

As per information available on the UNFCCC website, the CDM registration date of the project is 01/06/2011 (UNFCCC Ref. No.:4817) with the first CDM crediting period from 01/06/2011 to 31/05/2018 (/3/). The start date of the project was 16/12/2010 which was the day when the project began reducing GHG emissions according to the operation log. The final CDM validation report of the project was completed on 16/05/2011 (/2/) and submitted for CDM registration. The gap between the start date of the project (16/12/2010) and validation completion (16/05/2011) is in compliance with the requirement that non-AFOLU projects shall complete validation within two years of the project start date as per Section 3.8.1 of VCS Standard Version 3.1.

Section 1.6 Project Crediting Period: The project was registered as a CDM project on 01/06/2011. The start date of the project crediting period is 16/12/2010, which is confirmed to be the date on which the project began generating GHG emission reductions by checking the operation log. The end date of the

project crediting period is 31/05/2011, the date prior to the CDM registration date and the start date of CDM crediting period (01/06/2011). The project crediting period covers 2 years, i.e., 2010 and 2011.

Section 1.7 Project Scale and Estimated GHG Emission Reductions or Removals:

The ERs of each vintage indicated below are based on the annual ERs in the CDM registered PDD and days included in each vintage. The average annual ERs reported is the same as the annual ERs in the CDM registered PDD which covers a full year period.

The average annual ERs of the project are 99,501 tCO₂e, which is below the threshold of mega-project (1,000,000 tCO₂e per year). Therefore the project falls in the category of "Project" as per definition.

Project	√
Mega-project	

Years	Estimated GHG emission reductions or removals (tCO ₂ e)
Year 2010 (16/12/2010-31/12/2010)	4,362
Year 2011 (01/01/2010-31/05/2011)	41,163
Total estimated ERs	45,525
Total number of crediting years	2
Average annual ERs	99,501

Section 1.9 Project Location:

The project is located at Yuxian County, Hebei Province, People's Republic of China. The project has central geographical coordinates of 39°40'32"N, 114°33'06"E.

Section 1.10 Conditions Prior to Project Initiation:

The conditions prior to project initiation is the baseline scenario identified in the CDM registered PDD, i.e., supply of equivalent annual power output by the North China Power Grid to which the project is connected.

Section 1.12.1 Proof of Title:

Business license of Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. dated 18/01/2007 (/25/) and the Letter of Approval (LoA) issued by the Chinese DNA on the UNFCCC website of the project were provided to confirm the ownership of the project. It is clearly indicated in the LoA that the project owner is authorized as Chinese participant to voluntarily participate in and carry out the project activity. The Chinese DNA had examined the ownership of the project before it issued the LoA to the project participant. Thus, it was confirmed that the project owner has the ownership of the project.

Section 1.12.2 Emissions Trading Programmes and Other Binding Limits:

Through interviews with the project owner and the document review of the Letter of commitment (/27/) from the project owner, it is confirmed that the project does not take part in emission trading programmes other than the CDM for which it is registered as a CDM project (UN reference number 4817). However, the VCUs claimed are related to a different period (before the start of the CDM Crediting Period) and therefore there is no double counting.

Section 1.12.3 Participation under Other GHG Programmes:

Through interviews with the project owner and document review of the Letter of commitment (/27/) from the project owner, it is validated that the project owner is not included in another voluntary emission trading programme listed on the website of VCS during this monitoring period and the ERs generated from the project will be sold only once.

The project takes place in China, which has no emission reductions target and the project is not a micro or mega project. There are no mandatory emission trading programmes in China. The project is not a grouped one. The PP has confirmed that there is no financially

The project was registered as CDM project (Ref 4817) with a registration date of 01/06/2011 and the start date of the first CDM crediting period is 01/06/2011. The project does not take part in emission trading programmes besides their status under CDM. The VCUs claimed is related to a different period (before the start of the CDM Crediting Period) and therefore there is no double counting.

Through interviews with the project owner and document review of the Letter of commitment (/27/) from the project owner confirming that the project does not create another form of environmental credit, it is validated that the project has not created another form of environmental credit.

Section 1.13 Additional Information Relevant to the Project

Eligibility Criteria: N/A

Leakage Management: According to the consolidated methodology ACM0002 (Version 12.1.0, /23/), the leakage of the Project is not considered.

Commercially Sensitive Information: It is confirmed that commercially sensitive information has been excluded.

Further Information:

It is confirmed that there is no further information that may have a bearing on the eligibility of the project, the net GHG emission reductions or removals, or the quantification of the project's net emission reductions or removals.

2.2.2 Methodology Deviations

N/A.

2.2.3 New Project Activity Instances

N/A.

2.3 Validation Conclusion

According to the validation report for the project for CDM registration and the above further validation of the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template, it is validated that the Project Yuxian Baiyantuo 49.3 MW Wind Power Project is in compliance with the VCS Programmes requirements as set out in the VCS Rules.

3. Verification Process

3.1 Method and Criteria

SGS' approach to the verification is a two-stage process.

In the first stage, SGS 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.

At the end of this stage, SGS produced a Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

Using the Verification checklist, SGS 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.

3.2 Document Review

The CDM PDD, the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in Section 6 of this report.

3.3 Interviews

On 01/11/2011, all members of the assessment team performed interviews with station master from Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan.

Date	Name	Position	Short Description of Subject Discussed
01/11/2011	Bai Pengyu	Station Master, Hebei Construction Investment Yuzhou Wind Energy Co., Ltd.	Implementation status, Monitoring system, data collection & archive procedure, meters calibration, project boundary and additional GHG sources, Management and operation system documentation, responsibility allocation, internal audit
01/11/2011	Du Guang	Project Manager, HECIC New-energy Co., Ltd	Application of methodology, ER calculation, compliance with the CDM registered PDD
01/11/2011	Zhou Xin	Project Manager, HECIC New-energy Co., Ltd	Application of methodology, ER calculation, compliance with the CDM registered PDD

3.4 Site Inspections

As part of the verification, the following on-site inspections have been performed by all members of the assessment team:

Location: Yu County, Zhangjiakou City, Hebei Province, P.R. China	
Date: 01/11/2011	
Coverage:	Source of Information / Persons Interviewed
1. Assessment of the implementation and operation of the project activity as per the CDM registered PDD;	Mr. Bai Pengyu, Hebei Construction Investment Yuzhou Wind Energy Co., Ltd.
2. Review of information flows for generating, aggregating and reporting the monitoring parameters;	Mr. Du Guang, HECIC New-energy Co., Ltd
3. Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan.	Mr. Zhou Xin, HECIC New-energy Co., Ltd
4. A cross-check between information provided in the monitoring report and data from other sources such as MPRs, DRRs and sales receipts;	
5. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology;	
6. Review of calculations and assumptions made in determining the GHG data and emission reductions;	
7. 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.	

3.5 Resolution of Any Material Discrepancy

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

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a Clarification Request (CL) specifying what additional information is required.

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

- I. the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- II. the verification has identified misstatements in the reported emission reductions. Emission reductions with misstatements shall be discounted based on the verifiers ex-post determination of the achieved emission reductions

The verification process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

FARs may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

Corrective Action Requests and Clarification Requests are detailed in Verification Checklist. The Project Developer is given the opportunity to “close” outstanding CARs and respond to CLs and FARs.

3.6 Internal Quality Control

Following the completion of the assessment process and a recommendation by the assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Verification Findings

4.1 Project Implementation Status

4.1.1 Implementation status of the project activity

The monitoring period under verification are verified under VCS version 3.1 refer to section 2.2.1 of this report.

The project is registered against ACM0002 version 12.1.0 dated 26/11/2010 (/23/). The registered monitoring plan is in accordance with the applied methodology. By observing and interviewing during site visiting, the assessment team confirmed the monitoring plan in the registered CDM PDD and the applied methodology was properly implemented and followed by the project participant (PP).

Through the onsite visit, it has been confirmed that the project was implemented and the equipments were installed as described in the registered CDM PDD (/1//18/). Total 58 sets of wind turbine, each of which has a rated installed capacity of 850 kW, providing a total installed capacity of 49.3 MW has been equipped. It was confirmed that the project was put into commercial operation on 16/12/2010 (/10/). The project operates smoothly and normally during this monitoring period. No events or situations occurred during the monitoring period, which may impact the applicability of the methodology.

Through reviewing the Power Connection Agreement (/8/), Power Purchase Agreement (PPA, /9/), and Power Connection Diagram (/7/), it is confirmed that the project boundary is consistent with the registered CDM PDD. As per the registered CDM PDD, there are no other sources of GHG emissions attributable to the project activity which has been verified through onsite visit and interview with the project participant.

The emission reductions (ERs) estimated in the registered CDM PDD for this monitoring period of 167 days (from 16/12/2010 to 31/05/2011) is 45,525 tCO₂e (45,525 tCO₂e = 99,501 tCO₂e / 365days * 167days). The verified actual emission reduction in this monitoring period is 59,120 tCO₂e, which is 29.86% higher than the estimation as per the registered CDM PDD. CL#1 was raised requesting the PP to clearly clarify the reason and provide related evidences. FSR (/17/), sales receipts (/13/), and meter readings (/12/) were provided. It is confirmed that the big wind months are from January to May by reviewing the measured data in the FSR. And the verification period for the VCS project is from 16/12/2010 to 31/05/2011 which covers all the big wind months. Thus, a longer period from 16/12/2010 to 24/10/2011 is used to assess the ERs. In order to assess conservatively, the PP used the electricity supplied to the grid instead of the net electricity supplied to the grid to calculate the ERs. The estimated ERs during the period of 16/12/2010 - 24/10/2011 are 85,326 tCO₂e according to the registered CDM PDD. It is verified that the ERs for the period from 16/12/2010 to 24/10/2011 is 79,501 tCO₂e by reviewing the sales receipts (/13/) and meter readings records (/11/), which is lower than the estimated ERs for the same period as per the registered CDM PDD. Therefore, it is acceptable for the explanation of the higher ERs. Thus CL#1 is closed.

4.1.2 Remaining Issues from Previous Validation or Verification

VCS validation and verification was combined as the project is already registered under the CDM programmes. This is the first periodic VCS verification therefore no remaining issues for this project.

4.1.3 Compliance of the monitoring plan with the monitoring methodology

The project was registered under the CDM against the approved consolidated methodology ACM0002 Version 12.1.0 Consolidated methodology for grid-connected electricity generation from renewable sources. In accordance with paragraphs 199-203 of the VVM version 01.2, SGS confirms that the monitoring plan in the registered CDM PDD is in accordance with the approved methodology ACM0002 Version 12.1.0 by means of desk review.

4.1.4 Implementation Status of the Monitoring Plan and Completeness of Monitoring

Monitoring of reductions in GHG emissions to result from the project have been implemented in accordance with the monitoring plan contained in the PDD. The monitoring mechanism is effective and reliable.

EG_{facility,y}: Quantity of net electricity generation supplied by the Project to the grid in year y

According to the registered CDM PDD, the quantity of net electricity generation supplied by the Project (EG_{facility,y}) is measured continuously by one bi-directional meter installed on the 35 kV transmission line at the Project Site. Net electricity generation supplied by the Project (EG_{facility,y}) is calculated as electricity supplied to grid by the project minus electricity imported from the grid by the project.

The electricity meter is read via Distributed Control System (DCS) and the meter readings for electricity supplied to grid by the project and electricity imported from the grid by the project are recorded in computer and archived in the central control room at the project site. The meter readings for electricity supplied to grid by the project and electricity imported from the grid by the project were manually recorded in the Daily Reading Records (DRRs,/12/) and transcribed into Monthly Production Reports (MPRs,/11/) on a monthly basis by designated personnel of the project company. The cut-off time of the project is at 24:00 on the 24th of each month. After the monitoring data for electricity supplied to grid by the project and electricity imported from the grid by the project are confirmed, the sales receipt (/13/) is issued by the grid company to the Project Owner monthly. For the settled data during the period of 16/12/2010-24/12/2010, 25/12/2010-31/12/2010, 01/01/2011-24/01/2011, and 25/05/2011-31/05/2011, a certificate dated 06/11/2011 issued by the grid company (/14/), which is serving as the sales receipts, is used for crosscheck.

The MPRs, sales receipts (including the certificate issued by the grid company) covering this whole monitoring period have been provided for verification. Sales receipts issued by the grid company were used for crosscheck. The conservative value between the MPRs and sales receipts is used for ERs calculation. The DRRs and the operational log (/10/) were checked for cross reference. Supporting references and data required to determine the net electricity supplied to the grid by the project are found to be complete and transparent.

4.1.5 Accuracy of Equipment

As per the registered CDM PDD, the meter of the project is equipped in line with *Technical Administrative Code of Electric Energy Metering (DL/T 448-2000, /24/)* and calibrated annually. The measurement precision of the meter employed by the project is 0.2s.

The calibration details verified by the SGS assessment team refer to table below.

Type	Serial number	Accuracy class	Calibration date
Electricity meter	94316769	0.2S	29/01/2010 29/01/2011
Calibration Entity	China National Accreditation Service for Conformity Assessment (Accreditation Certificate No. : CNAS L2424, dated 05/04/2007 and 10/12/2010)		

The calibration records (/16/) of the meter and accreditation certificate (/15/) of the calibration entity were provided to and verified by the assessment team. It was verified that the meter has been calibrated by the qualified third party without any delay and were properly maintained during this monitoring period.

4.1.6 Data from External Sources

Based on the information in the CDM registered PDD (/1/), the baseline emission factor (EF_{grid,CM,y}) was ex-ante determined and is fixed for the first CDM crediting period. The value of baseline emission factor used in the monitoring report is 0.950225 tCO₂e/MWh, which is the same as the one in the registered CDM PDD (/1/).

4.2 Accuracy of GHG Emission Reduction or Removal Calculations

4.2.1 Accuracy of GHG Emission Reduction or Removal Calculations

A complete set of data covering the period from 16/12/2010 to 31/05/2011 has been provided and verified by the assessment team. With the conservative approach, monitoring of reductions in GHG emissions to result from the registered project has been implemented in accordance with the registered CDM PDD (/1/).

The monitoring parameters have been cross-checked with relevant evidences. See Section 4.1.4 for details. The appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed. And the assumptions and emission factor that were applied in the calculations have been justified.

4.2.2 Calculation of Emission Reductions or Removals

Table 1 Reported and verified data of $EG_{\text{facility},y}$

Period	Reported Value in MR version 01(MWh)	Verified Value(MWh)
16/12/2010-31/12/2010	4,340.373	4,340.373
01/01/2011-31/05/2011	57,877.057	57,877.057
Total	62,217.430	62,217.430

As per the registered CDM PDD (/1/), baseline emissions (BE_y), project emissions (PE_y), leakage (L_y) and emission reductions (ER_y) calculated as follows:

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

$$PE_y = 0$$

Leakage is not considered.

$$ER_y = BE_y - PE_y$$

The emission reductions reported in the monitoring report Version 02 are verified to be correct as the following table.

Table 2 Verified emission reductions calculation

Period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Emission reductions (tCO ₂ e)
16/12/2010 - 31/12/2010	4,124	0	4,124
01/01/2011 - 31/05/2011	54,996	0	54,996
Total: 16/12/2010-31/05/2011	59,120	0	59,120

4.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

Critical parameters used for the determination of the Emission Reductions are discussed above in Section 4.1.4 above. All the data recorded is in compliance with the monitoring report.

4.4 Management and Operational System

The management system and quality assurance procedures have been stipulated in the Monitoring Manual and QA/QC procedures, and have been implemented during operation. The emergency plan is in place. The staffs are well trained and qualified. This has been verified during the onsite visit and document review, therefore the assessment team can confirm that the management system of the project is in place; with the responsibilities properly identified and in place. The monitoring manual, training records and staff qualification (/19//20//21/) have been obtained and verified.

5. Verification Conclusion

The scope of the verification

We, SGS have been contracted by Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. to certify that the greenhouse gas (GHG) emission reductions reported for the Yuxian Baiyantuo 49.3 MW Wind Power Project for the period from 16/12/2010 to 31/05/2011 in the monitoring report version 02 dated 15/11/2011 are eligible for registration as Voluntary Carbon Units.

This engagement covers the verification of emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the Yuxian Baiyantuo 49.3 MW Wind Power Project, as well as an additional confirmation of the compliance of the VCS PD with the requirements of VCS Standard version 3.1.

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

Conclusions of the verification

(a) SGS is an entity accredited by the United Nations Framework Convention for Climate Change (UNFCCC) to undertake certification and verification services in the sector in which the Project is undertaken. The accreditation is accepted by VCSA as indicated in Clause 5 of VCS Programmes Guide Version 3.1.

(b) The monitoring report, together with other information examined, was prepared as per the VCS Monitoring Report Template, Version 3.0.

(c) The information in the monitoring report together with other information examined by the assessment team, including all the information necessary to determine that the emission reductions achieved have been determined correctly.

(d) Based on the examination of the monitoring report and other relevant information, the project meets all the requirements of the VCS Standard Version 3.1.

(e) Based on our examination of the monitoring report and other relevant information, the claiming emission reductions during the monitoring period from 16/12/2010 to 31/05/2011 are verified as 59,120 tonnes CO₂ equivalent.

Liability statement with regards to the accuracy of the verification statement

The management of Hebei Construction Investment Yuzhou Wind Energy Co., Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions. SGS is responsible for verification and confirming emission estimates for the project, as described in the monitoring report.

Our certification approach draws on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Our examination includes an assessment of evidence, through desk review, and where necessary, interviews, stakeholder discussions and site visits, relevant to certifying the rightfulness of the amounts and disclosures in relation to the Project's GHG emission reductions. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the project's GHG emission reductions for the defined reporting period.

We planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that the amount of GHG emission reductions for the given period, prepared on the basis of the monitoring report, are fairly stated.

This assessment included:

- Collection of evidence supporting the reported data;
- Checking whether the provisions of the Monitoring Plan in the registered PDD, were consistently and appropriately applied;
- Site visit and interview of relevant staff.

We have verified whether the information included in the monitoring report representing the emission reductions achieved has been determined correctly for the given period from the baseline figure.

Certification statements

Based on process and procedures conducted, in our opinion, the monitoring report version 02 dated 15/11/2011 on emission reductions for Yuxian Baiyantuo 49.3 MW Wind Power Project during the reporting period from 16/12/2010 to 31/05/2011 is materially correct and is a fair representation of the GHG data and information and the emission reductions are fairly stated. All relevant facts have been found correct by our examination. The GHG emission reductions calculation is correct.

Therefore, SGS is able to certify that the project is in full compliance with the VCS Standard Version 3.1, and the quantity of the reported emission reductions during below reporting period are completely, comparably, accurately and correctly reported.

(1) Reporting period: From 16/12/2010 to 31/12/2010

Verified GHG emission reductions in the above reporting period:

GHG Emission Reductions or Removals	tCO ₂ e
Baseline Emissions	4,124
Project Emissions	0
Leakage	0
Net GHG emission reductions	4,124

(2) Reporting period: From 01/01/2011 to 31/05/2011

Verified GHG emission reductions in the above reporting period:

GHG Emission Reductions or Removals	tCO ₂ e
Baseline Emissions	54,996
Project Emissions	0
Leakage	0
Net GHG emission reductions	54,996

Statement of Confidentiality

SGS will hold all information confidential until the client instructs otherwise or until it has been released in accordance with the VCS Standard Version 3.1 requirements.

Signed on behalf of the Verification Body by Authorized Signatory

SGS United Kingdom Limited

Dated: 22/11/2011

Signature:



Lead Assessor

Shute LI

Date: 27/11/2011

Signature:



Technical Reviewer

Linda Hu Mudan

6. Document References

- /1/ Project Design Document, version 03, dated 16/05/2011
- /2/ Validation Report of the project, issued by Bureau Veritas Certification Holding SAS, Report No. CHINA-VAL/6037/2010, Revision No. 01, dated 16/05/2011
- /3/ Project webpage at UNFCCC
<http://cdm.unfccc.int/Projects/DB/BVQI1305630866.5/view>
- /4/ Monitoring Report of the project

MR Version	Date of Revision	Main changes reason for Revision
Version 01	20/10/2011	Initial version issued to DOE
Version 02	15/11/2011	Revision as per SGS findings regarding clarification on the higher ERs

- /5/ ERs Calculation Spreadsheet version 01 dated 20/10/2011 and version 02 dated 15/11/2011
- /6/ Specification of the Turbines
- /7/ Power connection diagram of the project
- /8/ Power Connection Agreement signed between the grid company and the project owner
- /9/ Power Purchase Agreement (PPA) signed between the grid company and the project owner
- /10/ Operation log of the wind farm
- /11/ Monthly Production Reports (MPRs) of the project
- /12/ Daily Reading Records (DRRs) of the project
- /13/ Sales receipts of the project
- /14/ Certificate on the settled data for the period of 16/12/2010-24/12/2010, 25/12/2010-31/12/2010, 01/01/2011-24/01/2011, and 25/05/2011-31/05/2011 issued by the grid company dated 06/11/2011
- /15/ Accreditation Certificate of Hebei Power Research Institute issued by China National Accreditation Service for Conformity Assessment (Accreditation Certificate No. : CNAS L2424, dated 05/04/2007 and 10/12/2010)
- /16/ Calibration records of electricity meter (S/N: 94316769), issued by Hebei Power Research Institute, dated 29/01/2010 and 29/01/2011.
- /17/ FSR of the project
- /18/ Specification of the Turbines of the project
- /19/ Monitoring Manual of the project
- /20/ Emergency plan of the project
- /21/ Staff Training Records and Qualification Certificates of the wind farm
- /22/ Validation and Verification Manual Version 01.2 dated 30/07/2010
- /23/ ACM0002 Version 12.1.0, dated 26/11/2010
- /24/ DL/T448-2000 Technical administrative code of electric energy metering
- /25/ Business License of Hebei Construction Investment Yuzhou Wind Energy Co., Ltd.
- /26/ Letter of Approval (LoA) for the project as a CDM project by China DNA

- /27/ Letter of commitment issued by the PO
- /28/ VCS Standard Version 3.1
- /29/ VCS Programmes Guide Version 3.1
- /30/ VCS Project Description Template version 3.0

A.1. Annex 1: Overview of Findings

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	0	1	0

Date:	02/11/2011	Raised by:	Shute LI		
Type:	CL	Number:	CL #1	Reference:	AU4 Section 3
Lead Assessor Comment:			Date: 02/11/2011		
It is found that the ERs during the monitoring period of 16/12/2010-31/05/ 2011 is higher than the estimated ERs in the registered CDM PDD for the same monitoring period. Please clearly clarify the reason and provide related evidences.					
Project Participant Response:			Date: 15/11/2011		
According to the feasibility study report , Every year from January to May is period of the most wind speed. The estimated ERs during this period are 45,525 tCO ₂ e, whereas the actual emission reduction accomplished by the project during this verification period is 59,120 t CO ₂ e. Comparing with the estimated ERs, the actual ERs increased by 29.86% temporarily. By October, Actual value has less than estimated value of PDD. In order to get more conservative data, the calculation is Electricity supplied to Grid multiply by EFy. The estimated ERs during from 16/12/2010 to 24/10/2011 are 85,326 tCO ₂ e; the emission reduction accomplished by the project during from 16/12/2010 to 24/10/2011 is 79,501 tCO ₂ e. Comparing with the estimated ERs, the actual ERs reduced by 6.83% temporarily.					
Documentation Provided as Evidence by Project Participant:					
Feasibility Study report, Sales receipt and Meter readings for the period of 16-12-2010 to 24-10-2011.					
Information Verified by Lead Assessor:					
The wind speed over a year in the FSR and the measured data in the sales receipts and meter readings are verified.					
Reasoning for not Acceptance or Acceptance and Close Out:					
It is confirmed that the big wind months are from January to May by reviewing the measured data in the FSR. And the verification period for the VCS project is from 16/12/2010 to 31/05/2011 which covers all the big wind months. Thus, a longer period from 16/12/2010 to 24/10/2011 is used to assess the ERs. In order to assess conservatively, PP use the electricity supplied to the grid instead of the net electricity supplied to the grid to calculate ERs. The estimated ERs during from 16/12/2010 to 24/10/2011 are 85,326 tCO ₂ e according to the registered PDD. It is verified that the ERs for the period from 16/12/2010 to 24/10/2011 is 79,501 tCO ₂ e by reviewing the sales receipts and meter readings records, which is lower than the estimated ERs for the same period as per the registered PDD. Therefore, it is acceptable for the explanation of the higher ERs. CL#1 is closed.					
Acceptance and Close out by Lead Assessor:			Date: 15/11/2011		
Shute LI					

A.2. Annex 2: Team Members Statements of Competency

Statement of Competence

Name: Shute LI

Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)

x

Technical Area(s): TA 1.2 Energy generation from renewable energy sources

2. Energy Distribution

Technical Area(s):

3. Energy Demand

Technical Area(s):

4. Manufacturing

Technical Area(s):

5. Chemical Industry

Technical Area(s):

6. Construction

Technical Area(s):

7. Transport

Technical Area(s):

8. Mining/Mineral Production

Technical Area(s):

9. Metal Production

Technical Area(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)

Technical Area(s):

11. Fugitive Emissions from Production and

Consumption of Halocarbons and Sulphur Hexafluoride

Technical Area(s):

12. Solvent Use

Technical Area(s):

13. Waste Handling and Disposal

x

Technical Area(s): TA 13.1: Waste handling and disposal

14. Afforestation and Reforestation

Technical Area(s):

15. Agriculture

Technical Area(s):

Approved Member of Staff by:

Siddharth Yadav

Date:

15/04/2011

Statement of Competence

Name: Tracy Zheng

Status

-	Lead Assessor		-	Expert	
-	Assessor		-	Financial Expert	
-	Local Assessor	China	-	Technical Reviewer	

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)

Technical Area(s):

2. Energy Distribution

Technical Area(s):

3. Energy Demand

Technical Area(s):

4. Manufacturing

Technical Area(s):

5. Chemical Industry

Technical Area(s):

6. Construction

Technical Area(s):

7. Transport

Technical Area(s):

8. Mining/Mineral Production

Technical Area(s):

9. Metal Production

Technical Area(s):

10. Fugitive Emissions from Fuels (solid, oil and gas)

Technical Area(s):

11. Fugitive Emissions from Production and

Consumption of Halocarbons and Sulphur Hexafluoride

Technical Area(s):

12. Solvent Use

Technical Area(s):

13. Waste Handling and Disposal

Technical Area(s):

14. Afforestation and Reforestation

Technical Area(s):

15. Agriculture

Technical Area(s):

Approved Member of Staff by: Siddharth Yadav Date: 24/05/2011

Statement of Competence

Name: Hu, Linda

Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	x

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	x
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
2. Energy Distribution	
Technical Area(s):	
3. Energy Demand	
Technical Area(s):	
4. Manufacturing	
Technical Area(s):	
5. Chemical Industry	x
Technical Area(s): TA 5.1 Chemical process industries	
6. Construction	
Technical Area(s):	
7. Transport	
Technical Area(s):	
8. Mining/Mineral Production	
Technical Area(s):	
9. Metal Production	
Technical Area(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Technical Area(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	x
Technical Area(s): TA 11.2 GHG capture and destruction	
12. Solvent Use	
Technical Area(s):	
13. Waste Handling and Disposal	
Technical Area(s):	
14. Afforestation and Reforestation	
Technical Area(s):	
15. Agriculture	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 02/08/2011

A.3. Annex 3: Photographic Evidence

Unique reference number: 94316769

Parameter: EG_{facility,y}

Name of equipment: Electricity meter

Date:01/11/2011



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