Monitoring Report

Volume 2

Start monitoring period: 1 September 2006
End monitoring period: 31 December 2006

Title: Chengde Hongsong Windfarm Project

Project developer:

Hebei Hong-Song Wind Power Share Holding Ltd.

This Monitoring Report is approved:
_____ Mr Wang Jian Hebei Hong-Song Wind Power Share Holding Ltd. Date: _____

Project advisor:	Verifier:
Carbon Resource Management	DNV

Table of Contents

1 Introduction 3
2 Project description 3
3 Project timeline 3
4 Baseline 4
5 Monitoring methodology and plan 5
6 Quality assurance and quality control measures 5
7 Emission reduction calculations 7
Annex 1: Contact details 8

1 Introduction

The purpose of this Monitoring Report is to calculate the emission reductions achieved by the project activity in the period covered by this report, and to serve as the basis for the verification of these reductions and issuance of the VCUs.

1.1 Monitoring period

Volume 2: 1 September 2006 to 31 December 2006

2 Project description

2.1 Title

Chengde Hongsong Windfarm Project

2.3 Project summary

The Chengde Hongsong Windfarm Project is located in Hebei Province, China. The project consists of the installation of 84 turbines: 78 turbines of 600 kW, and 6 turbines of 750 kW capacity, providing a total of 51.3MW. The project is expected to generate some 104GWh per year once fully operational which will be exported to the North China Power Grid.

A more detailed description is available in the PDD and related documentation.

2.4 Category of project activity

Using the agreed methodology ACM0002 the category of the project activity is:

- Sectoral scope 1: Energy industries
- Category: Renewable electricity generation in grid connected applications

3 Project timeline

Starting date of the project activity	September 2004
Crediting period	Single 10 year crediting period
Starting date of crediting period	1 January 2005
End date of crediting period	31 December 2014
This monitoring report	Volume 2

Start of monitoring period	1 September 2006
End of monitoring period	31 December 2006

Table 1 lists the commissioning dates of the 84 turbines installed in the Chengde Hongsong Windfarm Project.

Table 1 Commissioning dates of turbines

No.	Commissioning date
A09	23/11/2004
A08	26/11/2004
A10	27/11/2004
A11	01/12/2004
A18	03/12/2004
A13	05/12/2004
A16	05/12/2004
A15	07/12/2004
A12	10/12/2004
A14	10/12/2004
A01	14/04/2005
A02	14/04/2005
A03	15/04/2005
A04	17/04/2005
A05	04/06/2005
A19	05/06/2005
A07	06/06/2005
A20	06/06/2005
A17	07/06/2005
A22	08/06/2005
A21	13/06/2005
A06	25/11/2005

No.	Commissioning date
B19	29/11/2004
B21	30/11/2004
B20	01/12/2004
B22	02/12/2004
B10	21/12/2004
B11	21/12/2004
B12	23/12/2004
B05	28/04/2005
B06	28/04/2005
B03	01/05/2005
B01	02/05/2005
B02	04/05/2005
B04	06/05/2005
B09	16/06/2005
B08	17/06/2005
B07	20/06/2005

No.	Commissioning date
C02	21/11/2004
C01	24/11/2004
C03	25/11/2004
C06	12/12/2004
C15	13/12/2004
C13	14/12/2004
C16	16/12/2004
C04	17/12/2004
C05	18/12/2004
C14	18/12/2004
C10	19/12/2004
C11	19/12/2004
C09	23/12/2004
C08	24/12/2004
C07	25/12/2004
C12	28/12/2004
C24	28/09/2005
C22	29/09/2005
C23	29/09/2005
C19	01/10/2005
C18	02/10/2005
C17	05/10/2005
C21	31/10/2005
C20	01/11/2005

No.	Commissioning date
D14	09/09/2005
D10	10/09/2005
D12	10/09/2005
D09	11/09/2005
D08	12/09/2005
D07	13/09/2005
D06	15/09/2005
D13	17/09/2005
D04	06/10/2005
D01	09/10/2005
D02	10/10/2005
D03	12/10/2005
D05	15/10/2005
D11	30/10/2005
D15	14/04/2006
D17	28/04/2006
D16	01/05/2006
D19	04/05/2006
D18	07/05/2006
D20	12/05/2006

No.	Commissioning date
E01	16/09/2004
E02	16/09/2004

4 Baseline

4.1 Methodology

The project participants use the approved baseline and monitoring methodology ACM0002 (version 6) "Consolidated baseline methodology for grid-connected electricity generation from renewable sources".

Using ACM0002, the emission reductions achieved by the project activity can be calculated by multiplying the net electricity supplied to the grid and the appropriate emissions factor of the grid.

4.2 Calculations

The emission reductions ERy by the project activity during a given year y is

ERy = BEy =EGy * EFy

where EGy is the net electricity supplied to the grid, EFy is the CO_2 emission factor of the grid and BEy is the baseline emissions.

The emission factor EFy of the grid is represented as a combination of the Operating Margin and the Build Margin, and fixed for the duration of the crediting period in the PDD.

The Operating Margin emission factor EF_OMy was calculated in the PDD as 0.992 tCO2e/MWh. The Build Margin emission factor EF_BMy was calculated as 0.861 tCO2e/MWh. The weighted average of Operating and Build Margin emission factors is:

EF = wOM * EFOM + wBM * EFBM = 0.75 • 0.984 + 0.25 • 0.859＝ 0.952tCO2/MWh

5 Monitoring methodology and plan

5.1 Monitored data

As the emissions factor is fixed for the whole period, the monitored data for the project activity only includes the net electricity generation from the windfarm.

ID	Variable	Source of data
1	EG: net electricity supplied to the grid	Electricity meter

5.2 Baseline data

5.2.1 EG: net electricity supplied to the grid

Table 2 EG: net electricity supply to the grid by the project (kWh)

Period	Gross generation	Net supply
Sep-Dec 2006	40910730	39783060

6 Quality assurance and quality control measures

6.1 Roles and responsibilities

Overall responsibility for monitoring and carrying out the monitoring following this monitoring plan lies with the Chengde Hong-Song Wind Power Share Holding Ltd.

Mr. Wu Yuzhu is responsible for the operation and maintenance of the windfarm;

Mr. Zhou Mingsheng is responsible for the monitoring and report;

Mr. He Zhiyuan is responsible for the VER data collection and internal auditing.

6.2 Training

Carbon Resource Management has advised the project developer on monitoring work.

6.3 Calibrations

The Power Interchange Agreement between Hebei Hong-Song Wind Power Share Holding Ltd. and North China Power Grid Company Limited defines the metering arrangements and the required quality control procedures to ensure accuracy.

The net electricity supplied to the grid in the monitoring period will base on the main meter installed in windfarm substation, and the backup meter in Shanwanzi substation of the North China Power Grid is an assistant one. The metering equipment are calibrated and checked annually for accuracy. The metering equipment shall have sufficient accuracy so that any error resulting from such equipment shall not exceed 0.5% of full-scale rating. The net energy output registered by the meters alone will suffice for the purpose of billing and emission reduction verification as long as the error in the meters is within the agreed limits.

Calibration is carried out by the North China Power Grid of Chengde Electric Power Company with the records being supplied to Chengde Hongsong Wind Farm, and these records will be maintained by Hebei Hong-Song Wind Power Share Holding Ltd.

All the meters installed shall be tested by North China Power Grid within 10 days after:

- the detection of a difference larger than the allowable error in the readings of both meters;
- the repair of all or part of meter caused by the failure of one or more parts to operated in accordance with the specifications; and/or

If any errors are detected the party owning the meter shall repair, recalibrate or replace the meter giving the other party sufficient notice to allow a representative to attend during any corrective activity.

Should any previous months reading of the main meter be inaccurate by more than the allowable error, or otherwise functioned improperly, the net energy output shall be determined by (a) first, by reading backup meter, unless a test by either party reveals it is inaccurate; (b) if the backup system is not with acceptable limits of accuracy or is otherwise performing improperly the Hebei Hong-Song Wind Power Share Holding Ltd. and North China Power Grid shall jointly prepare an estimate of the correct reading; and (c) if North China Power Grid and Hebei Hong-Song Wind Power Share Holding Ltd. fail to agree then the matter will be referred for arbitration according to agreed procedures.

Calibration had taken place as per schedule in 8 June 2006 before the start of this second period. No errors occurred during the second monitoring period of the Hebei Hong-Song Wind farm.

6.4 Quality control

Monthly net generation data has been approved and signed off by Mr. He Zhiyuan.

7 Emission reduction calculations

7.1 Project emissions

As a renewable energy project, project emissions are zero.

7.2 Baseline emissions

Table 3 Baseline emissions

Period	EG(MWh)	EF(tCO_2e/MWh)	BE(tCO_2e)
Sep-Dec 2006	39783	0.952	37873

7.3 Leakage emissions

As a relatively small renewable energy project, leakage from the project are considered zero.

7.4 Summary of emission reductions during the monitoring period

Table 4 below shows the summary of emissions and emission reductions. It also shows that the total reductions claimed are rounded down to the last whole tonne.

Table 4 Emission reduction calculation (tCO_2e)

Period	Project emissions	Baseline emissions	Leakeage	Emission reductions
Sep-Dec 2006	0	37873	0	37873

Annex 1: Contact details

Project developer

Hebei Hong-Song Wind Power Share Holding Ltd.

No. 10, Xinhua Street North, Chengde city

Hebei province

People's Republic of China

Mr He Zhiyuan

Project Manager

Tel +86 0314 8783579

Email onelook1982@sina.com

Project advisor

Carbon Resource Management

Technology House

16-18 Whiteladies Road

Bristol BS8 2LG

UK

Tel: +44 117 980 9440