

INNER MONGOLIA YIHEWUSU PHASE II 49.5 MW WIND POWER PROJECT

Document Prepared By EcoSecurities International Limited

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1 PROJECT DETAILS

1.1 Summary Description of Project

Inner Mongolia Yihewusu Phase II 49.5 MW Wind Power Project (hereafter referred to as “the Project”) is to utilize a wind power facility to generate zero greenhouse gas emissions electricity for the North China Power Grid (NCPG), thereby displacing electricity that is relative carbon intensive. The project involves the installation of 66 Jinfeng S50/750 wind turbines each of which with a rated capacity of 750kW, providing a total capacity of 49.5MW. The expected annual electricity supply to the grid is 101,689 MWh. The project is therefore expected to reduce emissions of GHG by an estimated 107,267 tCO₂e per year.

1.2 Sectoral Scope and Project Type

The Project falls in the sectoral scope 1: energy industries (renewable-/non-renewable sources). The Project is not a grouped project.

1.3 Project Proponent

Inner Mongolia Xinjin Wind Power Co., Ltd. (Project Owner)

Address: West of Eight Floor, Comprehensive Building, Fangting Garden, Huhhot City, Inner Mongolia Autonomous Region, China, 010011

Tel: 86-471-4223486

Fax: 86-471-4223486

1.4 Other Entities Involved in the Project

There is no any other project participant(s).

1.5 Project Start Date

25-06-2009

1.6 Project Crediting Period

01-07-2009 to 24-11-2010, in total 512 days, around 1.4 years.

1.7 Project Location

The Project is Hangjin County, Ordos City, Inner Mongolia, the People's Republic of China. The GPS coordinates for the centre of the wind farm is 40°07'02"N, 107°31'42"E.

1.8 Title and Reference of Methodology

The consolidated baseline and monitoring methodology: ACM0002: "Consolidated methodology for grid connected electricity generation from renewable sources" version 10, in effect as of 28 of May 2009 (<http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT>);

Tool for the demonstration and assessment of additionality, version 05.2

(<http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-01-v5.2.pdf>)

Tool to calculate the emission factor for an electricity system, version 02

(<http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-07-v2.pdf>)

2 IMPLEMENTATION STATUS

2.1 Implementation Status of the Project Activity

The project was registered under CDM on 25-11-2010 and installed 66 Jinfeng S50/750 wind turbines (750kW each) which are the same as described in the project PDD.

The Project consists of one site only and the implementation is not phased. The construction of the first set of wind turbine was completed on 05/06/2009 and all turbines commissioned on 25/06/2009.

The project operated normally during the indicated monitoring period.

2.2 Project Description Deviations

The data of meter M1 required by the registered CDM PDD in this monitoring period can not be obtained as the meter is owned and installed at the substation of grid company, the monitoring system deviates the project description in this monitoring period. The meter located at the high voltage side of the on-site transformer is used to measure the export and import electricity. The meter with the accuracy 0.2S is calibrated yearly at least. The line loss from the high voltage side of the on-site transformer to the substation of Grid Company, which is issued by the Grid Company, has been deducted in the calculation of emission reductions for conservativeness.

2.3 Grouped Project

N/A

3 DATA AND PARAMETERS

3.1 Data and Parameters Available at Validation

Data Unit / Parameter:	EF _{grid,CM,y}
Data unit:	tCO ₂ /MWh
Description:	Combined Margin CO ₂ emission factor for the NCPG
Source of data:	the registered CDM PDD
Value applied:	1.05485
Purpose of the data:	Baseline emission
Any comment:	N/A

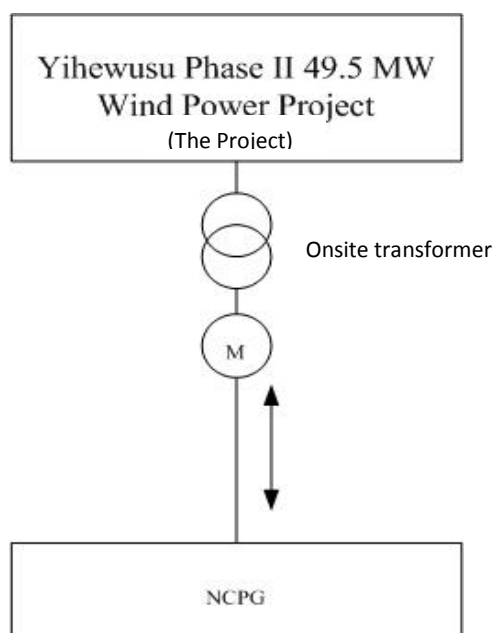
3.2 Data and Parameters Monitored

Data Unit / Parameter:	EG _{facility,y}
Data unit:	MWh
Description:	Quantity of net electricity generation supplied by the project to the grid in the year y
Source of data:	Measured at Project Activity Site
Description of measurement methods and procedures to be applied:	The net electricity supplied to the grid by the project is calculated by the power export to the grid minus power import from grid. The exported and imported power are continuously measured and monthly recorded by project entity with national standard electricity metering.
Frequency of monitoring/recording:	Continuous measurement, monthly recording
Value monitored:	128,231.912 (for monthly records, please refer to the ER calculation spreadsheet)
Monitoring equipment:	Revenue meter: continuous 2-way electronic power meter, serial nr. 00000345, accuracy class 0.2S, calibration frequency yearly. The calibration dates were 04-06-2009 and 23-12-2009, thus, the meter is valid in the whole monitoring period.
QA/QC procedures to be applied:	The meter is calibrated according to the national standard. Data measured by the meters are cross checked using electricity transaction notes (ETNs).

Calculation method:	Net electricity supplied to the grid= $EG_{\text{facility},y} = \text{power export} - \text{power import}$
Any comment:	N/A

3.3 Description of the Monitoring Plan

- Line diagram



- Quality assurance and quality control system

The accuracy of the monitoring results are in conformity with calibration requirements, recording frequency and quality assurance and quality control procedures stated in the registered PDD.

- Data collection procedures

Data generation: electricity exported and imported is measured by an electricity meter which serves as the revenue meter located at the higher voltage side of the 220kV on-site transformer.

Data recording: the grid company and the project developer record the meter readings on 24:00 at the end day of each month to establish the net power supplied to the grid except for Nov. 2010, the data are recorded at 24:00PM of 24th. The electricity transaction notes (ETNs) issued by grid company are used to crosscheck.

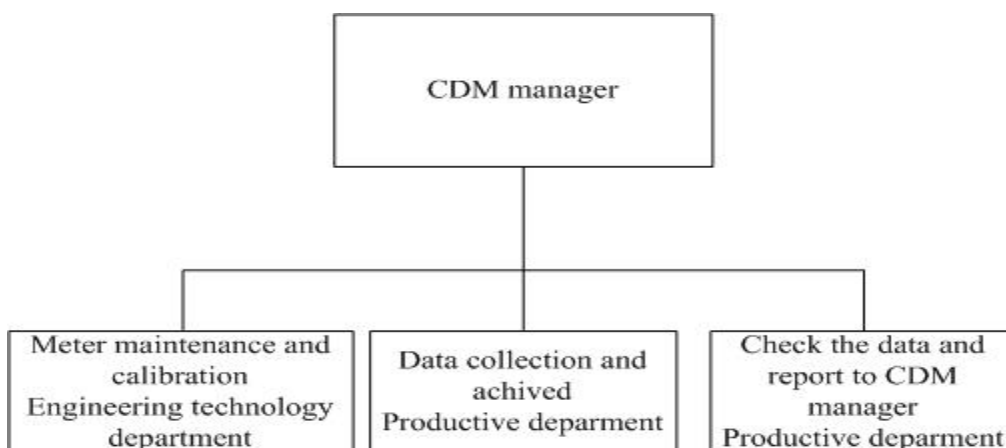
Data aggregation: The calculated net power exported per month is summed over the monitoring period.

Calculation: Export and import per month is the difference between the cumulative values on the revenue meter. Net power supplied to the grid is power export minus power import. Net power supplied to the grid * emission factor is baseline emissions. Please check the calculation sheet for details.

Reporting: The calculated values are included in an Excel sheet and reported in the CDM-MR.

- Organizational structure, roles and responsibilities

A CDM manager has been appointed and trained who is responsible for the CDM monitoring system. Monthly recording of revenue meter falls under the responsibility of the site manager. ETNs are used to cross check monthly recorded net power supply. The detailed management structure and responsibility are as following:



- Emergency procedures for the monitoring system

The Project Developer and the grid shall notify each other and the measurement and testing institution designated by both party to study and solve the problem together, when the meter malfunctioned. Records for sold electricity will be settled by mutual agreement.

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

Calculation of baseline emissions	Symbol	Amount	Unit	Formula	Remarks
Net electricity supplied to grid in 2009	$EG_{\text{facility},y}$	44,327.973	MWh		1
Net electricity supplied to grid in 2010	$EG_{\text{facility},y}$	83,903.938	MWh		1
Emission factor	$EF_{\text{grid},CM,y}$	1.05485	tCO ₂ e/MWh		2
Baseline emissions in 2009	BE_y	46,759	tCO ₂ e	$BE_y = EG_{\text{facility},y} * EF_{\text{grid},CM,y}$	
Baseline emissions in 2010	BE_y	88,506	tCO ₂ e	$BE_y = EG_{\text{facility},y} * EF_{\text{grid},CM,y}$	

Remarks

1. $EG_{\text{facility},y}$ = Net electricity supplied to grid = power export - power import
2. $EF_{\text{grid},CM,y}$ fixed for 1st crediting period.

4.2 Project Emissions

Calculation of project emissions	Symbol	Amount	Unit	Formula	Remarks
Project emissions	PE_y	0	tCO ₂ e	N/A	3

Remarks

3. As per methodology and PDD.

4.3 Leakage

Calculation of leakage emissions	Symbol	Amount	Unit	Formula	Remarks
Leakage emissions	Ly	N/A	tCO ₂ e	N/A	4

Remarks

4. As per methodology and PDD.

4.4 Summary of GHG Emission Reductions and Removals

Calculation of emission reductions	Symbol	Amount	Unit	Formula	Remarks
Baseline emissions in 2009	BE _y	46,759	tCO ₂ e	$BE_y = EG_{\text{facility},y} * EF_{\text{grid},CM,y}$	5
Baseline emissions in 2010	BE _y	88,506	tCO ₂ e	$BE_y = EG_{\text{facility},y} * EF_{\text{grid},CM,y}$	6
Project emissions in 2009	PE _y	0	tCO ₂ e		7
Project emissions in 2010	PE _y	0	tCO ₂ e		7
Leakage emissions	Ly	N/A	tCO ₂ e		8
Emission reductions in 2009	ER _y	46,759	tCO ₂ e	$ER_y = BE_y - PE_y$	9
Emission reductions in 2010	ER _y	88,506	tCO ₂ e	$ER_y = BE_y - PE_y$	9

Remarks

5. $y = 184$ days from 01/07/2009 to 31/12/2009
6. $y = 328$ days from 01/01/2010 to 24/11/2010
7. As per methodology and PDD.
8. As per methodology and PDD.
9. With $PE_y = 0$; $ER_y = BE_y$.

5 ADDITIONAL INFORMATION

The following table shows the comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD. This table shows that the actual value is less than the estimated emission reduction of the registered CDM-PDD during this monitoring period.

Item	Values estimated in ex-ante calculation of registered PDD	Actual values achieved during this monitoring period
Emission reductions or GHG removals by sinks (tCO ₂ e)	150,467 ¹	135,265 ²

¹ 107,267 tCO₂e (annual GHG emission reductions estimated in registered PDD) / 365 days * 512 days (the days length of this monitoring period)

² 135,265 = 46,759 + 88,506