

MONITORING REPORT FORM (CDM-MR) *
Version 01 - in effect as of: 28/09/2010

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* as contained within the document entitled "Guidelines for completing the monitoring report form (CDM-MR)" (EB 54 meeting report, annex 34).

MONITORING REPORT
Version 1.0 Date 11/04/2011

Inner Mongolia Wuliji Wind Farm Project
UNFCCC reference number: 2483
The first monitoring period (15/03/2010 - 31/03/2011)

SECTION A. General description of the project activity

A.1. Brief description of the project activity: >>

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Inner Mongolia Wuliji Wind Farm Project is generating renewable electricity utilizing wind power and sells the generated output to the North China Power Grid (NCPG) on the basis of a power purchase agreement (PPA). Based on the conditions of the project site, the project activity has installed 40 wind turbines, each with a capacity of 1.25MW. The total installed capacity of the project activity is 50MW. The ex-ante expected net generation of the project activity is approximately 117, 630 MWh per year, with a load factor of 26.86%.

Project timeline

Construction start date	02/09/2008
Commissioning start date	13/09/2009
Date of CDM registration	15/03/2010
Version of the registered PDD	2.1
Date of the registered PDD	22/02/2010
First renewable crediting period	15/03/2010 – 14/03/2017
Starting date of crediting period	15/03/2010
Current monitoring period	
Volume 1	15/03/2010-31/03/2011
End date of crediting period	14/03/2017

The total emission reductions achieved in the current monitoring period are 128, 660tCO₂e.

A.2. Project Participants

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Name of Party involved	Private and/or public entity(ies) project participants (as applicable)	Party involved wishes to be considered as project participant (Yes/No)
P.R. China (host)	CGN Wind Power Co., Ltd.	No
United Kingdom of Great Britain and Northern Ireland	Carbon Resource Management Ltd.	No

A.3. Location of the project activity:

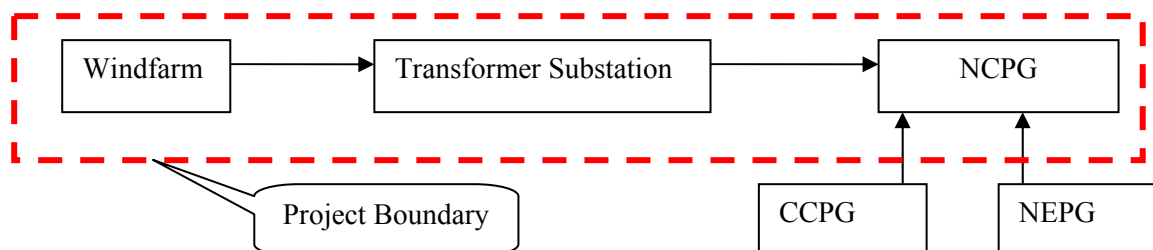
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Host country	People's Republic of China
Region	Inner Mongolia Autonomous Region
City	Bayannao'er
Town	Wulate Hou Qi
GPS coordinates	Longitude 106°38'30" East Latitude 41°30'20" North

A.4. Technical description of the project

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40 sets of 1250kW wind turbines (Model SEC-1250) from Sewind Co., Ltd. were selected. The electricity is exported through the onsite substation and transmission line to the North China Power Grid (NCPG).



A.5. Title, reference and version of the baseline and monitoring methodology applied to the project activity:

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The methodology applied in the proposed project is the approved baseline and monitoring methodology ACM0002 (version 09) –“Consolidated methodology for grid-connected electricity generation from renewable sources” (valid from 27 Feb 2009 onwards).

A.6. Registration date of the project activity:

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15/03/2010 (Version of the registered PDD is 2.1)

A.7. Crediting period of the project activity and related information (start date and choice of crediting period):

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Crediting period	First renewable crediting period
Starting date of crediting period	15/03/2010
End date of crediting period	14/03/2017

A.8. Name of responsible person(s)/entity(ies):

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Contact information of the person(s)/entity (ies) responsible for completing the monitoring report form (CDM-MR):

- The persons preparing the documentation were:
 - Mr. Ma Qian, mq@carbonresource.com, Tel: +86 10 8447 5246/29
 - Mr. Zhu Hailei, zhl@carbonresource.com, Tel: +86 10 8447 5246/8

SECTION B. Implementation of the project activity

B.1. Implementation status of the project activity

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The project activity started construction on 02/09/2008. The project was commissioned from 13/09/2009 and all the 40 wind turbines have been put into operation gradually till 24/10/2009.

During this monitoring period, the wind farm has a good running, smooth data transfer and grid connection, and no special events happened.

No events or situations occurred during the monitoring period, which may impact the applicability of the methodology.

B.2. Revision of the monitoring plan

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The monitoring plan is implemented in accordance with that in the registered PDD, no revision of monitoring plan applied.

B.3. Request for deviation applied to this monitoring period

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The monitoring plan is implemented as in the registered PDD, no deviation is applied.

B.4. Notification or request of approval of changes

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The project activity is implemented as in the registered CDM-PDD, there is no notification or request of approval of changes from the project activity as described in the registered CDM-PDD.

SECTION C. Description of the monitoring system

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1. Monitoring system and data collection

According to the registered PDD and the applied methodology, the electricity of exports and imports to the grid by the project activity should be monitored by the main meter installed in on-site substation and the metering data will be used to calculate the net electricity supplied to the grid and then the emission reduction could be calculated.

The electricity supplied to NCPG is continuously measured by the main meter installed in on-site substation. At 24:00 of the last day of each month, assigned staff of the project owner and a designated person from the grid company jointly recorded the main meter and supplied the monthly readings of the main meter to the Grid Company and the grid company issued ETN (Electricity Transaction Notes) to the wind farm. After the amount of export electricity and import electricity being agreed by the wind farm and the grid company, invoices of the export electricity and import electricity were issued by the developer and the grid company respectively. Both the export electricity and import electricity have been crosschecked with the invoices during this monitoring period.

2. Organizational structure and responsibilities

Overall responsibility for monitoring and carrying out the monitoring following this monitoring plan lies with CGN Wind Power Co., Ltd. Carbon Resource Management had advised the project developer on how to perform the monitoring work. The staffs who were responsible for electricity meter readings and recording, and who were responsible for auditing the metered data had been trained according to the CDM requirements. During this monitoring period, the wind farm was running well.

3. Emergency procedures

The metering equipments are calibrated and checked periodically by qualified third party for accuracy. Calibration was carried by Metrology Center of Inner Mongolia Electric Power Research Institute. Meters had been jointly inspected and sealed on behalf of the parties concerned. No errors occurred during this monitoring period.

Should any previous months reading of the main meter be inaccurate by more than the allowable error, or otherwise functioned improperly, the net generation 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 within acceptable limits of accuracy or operation is performed improperly the project operator and NCPG shall jointly prepare a reasonable and conservative estimate of the correct reading, and provide sufficient evidence that this estimation is reasonable and conservative.

During the monitoring period, there is no emergency incident.

SECTION D. Data and parameters

D.1. Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors	
Data / Parameter:	EF_{grid,CM,y}
Data unit:	tCO₂/MWh
Description:	Emission factor which is ex-anted according to the applied methodology
Source of data used:	Registered PDD
Value(s) :	1.0548
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline emission calculation
Additional comment:	EF _{grid,OM,y} and EF _{grid,BM,y} are 1.1169 tCO ₂ /MWh and 0.8687tCO ₂ /MWh respectively. Weighting of EF _{grid,OM,y} is 0.75 and weighting of EF _{grid,BM,y} is 0.25.

D.2. Data and parameters monitored					
Data / Parameter:	EG _y				
Data unit:	MWh				
Description:	Net electricity supplied to the grid by the project				
Measured /Calculated /Default:	Net electricity supplied to the grid by the project (EG _y) is calculated from the measured electricity exported to the grid by the proposed project minus the measured electricity imported from the grid by the proposed project The results from the main meter are jointly recorded by a designated person from the grid company and the project owner at 24:00 of the last day of each month.				
Source of data:	The main meter installed at onsite substation				
Value(s) of monitored parameter:	121,976.53MWh				
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission calculation				
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	The main meter and backup meter installed at onsite substation. Information of Monitoring equipment as follow tables:				
	Meter	Serial No.	Type	Accuracy	Calibration frequency
	Main Meter	95691047	digital	0.2S	annually
	Backup Meter	95691048	digital	0.2S	annually
	Serial No.		Calibration done on		
	95691047	05/02/2010	09/11/2010		
	95691048	05/02/2010	09/11/2010		

	95691047	05/02/2010 to 04/02/2011	09/11/2011
		09/11/2010 to 08/11/2011	
	95691048	05/02/2010 to 04/02/2011	09/11/2011
		09/11/2010 to 08/11/2011	
Calibration was carried by Metrology Center of Inner Mongolia Electric Power Research Institute and the calibration records were supplied to the developer by the power grid. The accreditation certificate for the calibrator (No. of accreditation certificate: Meng (2009) 15021) was issued by Quality and Technical Supervision Bureau of Inner Mongolia Autonomous Region and valid for this monitoring period.			
Measuring/ Reading/ Recording frequency:	Measuring continuously/ Reading daily/ Recording monthly		
Calculation method (if applicable):			
QA/QC procedures applied:	1. The net electricity supply to the grid is double checked by receipt of sales. 2. The meters are calibrated once per year by a qualified organization according to the related national standards and regulations (Chinese electricity industry regulation DL/T448). 3. A back-up meter is installed at the project site substation to check the main meter. When the main meter fails to work normally, the readings of the back-up meter will be adopted. 4. Proportion of the monitored data is 100%. 5. The data will be kept during the crediting period and until two years after the end of the crediting period.		

SECTION E. Emission reductions calculation

E.1. Baseline emissions calculation

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The baseline emissions in year y is calculated as

$$BE_y = EG_y \times EF_{grid,CM,y}$$

Where:

BE_y = Baseline emissions in year y (tCO₂/yr).

EG_y = The quantity of annual net electricity supplied to the grid by the proposed project (MWh).

$EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the "Tool to calculate the emission factor for an electricity system".

Period	EG _y (MWh)	EF (tCO ₂ e/MWh)	Baseline emissions (tCO ₂ e)
15/03/2010-31/03/2011	121976.53	1.0548	128660

The detailed calculation of EG_y is calculated below:

Table 1: Monitored electricity and calculation

Period	Total exported electricity to the grid (MWh)		Total imported electricity from the grid (MWh)		EGy (MWh)
	Measured by the main meter	Electricity data in Sales Receipts	Measured by the main meter	Electricity data in Sales Receipts	
15/03/2010-31/03/2010	5747.38	5747.38	49.57	49.57	5697.81
01/04/2010-30/04/2010	12279.46	12279.46	46.27	46.27	12233.19
01/05/2010-31/05/2010	12640.76	12640.76	29.19	29.19	12611.57
01/06/2010-30/06/2010	10016.07	10016.07	48.10	48.10	9967.97
01/07/2010-31/07/2010	10434.43	10434.43	52.30	52.30	10382.13
01/08/2010-31/08/2010	9104.78	9104.78	60.07	60.07	9044.71
01/09/2010-30/09/2010	9463.79	9463.79	57.39	57.39	9406.40
01/10/2010-31/10/2010	7029.55	7029.55	67.52	67.52	6962.03
01/11/2010-30/11/2010	8040.65	8040.65	28.34	28.34	8012.31
01/12/2010-31/12/2010	9050.44	9050.44	147.86	147.86	8902.58
01/01/2011-31/01/2011	8889.64	8889.64	374.73	374.73	8514.91
01/02/2011-28/02/2011	9662.91	9662.91	217.58	217.58	9445.33
01/03/2011-31/03/2011	10903.33	10903.33	107.74	107.74	10795.59
Total		123263.19		1286.66	121976.53

E.2. Project emissions calculation

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According to the applied methodology, as a renewable energy project, the project emissions of this project are zero.

E.3. Leakage calculation

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According to the applied methodology, as a renewable energy project, the project emissions of this project are zero.

E.4. Emission reductions calculation / table

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According to the applied methodology, the emission reductions in year y (ER_y) should be calculated as:

$$ER_y = BE_y - PE_y - L_y$$

Period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage (tCO ₂ e)	Emission reductions (tCO ₂ e)
15/03/2010-31/03/2011	128660	0	0	128660

E.5. Comparison of actual emission reductions with estimates in the CDM-PDD

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Item	Values applied in ex-ante calculation of the registered CDM-PDD	Actual values reached during the monitoring period
Emission reductions (tCO ₂ e)	129,855	128,660

According to the registered PDD, the ex-ante estimated average annual emission reductions are 124, 076 tCO₂e. This monitoring period covers 382 days, therefore the ex-ante estimated emission reductions should be 129,855tCO₂e as per registered PDD (124,076*382/365=129,855).

E.6. Remarks on difference from estimated value in the PDD

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The total emission reductions for this monitoring period are 128, 660 tCO₂e. As the monitoring period is for 382 days, multiplying the annual volume in the PDD by 382/365days give a volume of 129,855 tCO₂ and so the actual volume would appear to be smaller than the estimates in the registered PDD.

History of the document

Version	Date	Nature of revision
01	EB 54, Annex 34 28 May 2010	Initial adoption.
Decision Class: Regulatory Document Type: Guideline, Form Business Function: Issuance		