MONITORING REPORT FORM (F-CDM-MR)
Version 02.0

MONITORING REPORT

Title of the project activity	**Liaoning Xidayingzi Wind Farm Project**
Reference number of the project activity	**4401**
Version number of the monitoring report	**01**
Completion date of the monitoring report	**17/07/2012**
Registration date of the project activity	**16/02/2011**
Monitoring period number and duration of this monitoring period	**Monitoring period Number: 01** **Monitoring period Dates:16/02/2011 – 31/05/2012 (first and last days included)**
Project participant(s)	**Fuxin Huashun Wind Power Co., Ltd.** **Energy Systems International B.V**
Host Party(ies)	**China**
Sectoral scope(s) and applied methodology(ies)	**Scope 1** **Approved consolidated baseline and monitoring methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 12).**
Estimated amount of GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD	**132,290 tCO_2e**
Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period	**131,749 t CO_2e**

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

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Liaoning Xidayingzi Wind Farm Project (hereinafter referred to as the Project) is located within Houxinqiu Town, Zhangwu County, Fuxin City, Liaoning Province, P.R.China. It is invested, constructed and operated by Fuxin Huashun Wind Power Co., Ltd. (hereinafter referred to as the Project Owner).

The total installed capacity of the Project is 49.5 MW equipped with 33 sets of wind turbines with a unit installed capacity of 1,500 kW. The estimated electricity delivered to Northeast China Grid by the Project is 104,313 MWh1 per year with a plant load factor of 0.2406. Electricity generated by the Project will be delivered to Northeast China Grid.

Northeast China Grid is dominated by traditional thermal power plants. In the absence of the Project, equivalent amount of annual power output to the Project will be generated and supplied by Northeast China Grid which the Project is connected to. This is the same with the baseline scenario of the Project. It is expected that the Project as a renewable energy source will generate emission reductions of about 107,236 tCO2e per year by avoiding CO2 emissions from the same amount of electricity generation from Northeast China Grid, which is mainly composed of traditional thermal power plants.

The Project commenced construction on 02/09/2009. The first turbine was commissioned on [17/12/2009], And all sets of turbine have been put into operation gradually till 09/06/2010.

The expected technical lifetime of the Project is 20 years as stated in the registered PDD.

This Monitoring Report is for the first phase of monitoring period, which is from 16/2/2011-31/05/2012. The total emission reduction achieved in this monitoring period is 131,749 tCO2e.

A.2. Location of project activity

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The Project is located within Houxinqiu Town, Zhangwu County, Fuxin City, Liaoning Province, P.R.China. The center of the Project site has geographical coordinates with east longitude of 122°50′30″and north latitude of 42°34′30″. The area of the wind farm is about 19 km2. Figure 1 shows the location of Fuxin City.

A.3. Parties and project participant(s)

Party involved ((host) indicates a host Party)	Private and/or public entity(ies) project participants (as applicable)	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
People's Republic of China (host)	Fuxin Huashun Wind Power Co., Ltd.	No
Netherlands	Energy Systems International B.V.	No

A.4. Reference of applied methodology

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The proposed project will use the approved consolidated baseline and monitoring methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 12).

The methodology also refers to the latest approved versions of the following tools:

☐ Tool to calculate the emission factor for an electricity system (Version 02);

☐ Tool for the demonstration and assessment of additionality (Version 05.2).

For more information regarding the methodology and the tools as well as their consideration by the Executive Board, please refers to the web site:

http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html

A.5. Crediting period of project activity

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A renewable crediting period is chosen. There is no post-registration change to the start date of the crediting period. The first crediting period of the project activity is from 16/02/2011 to 15/02/2018.

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity

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The Project commenced construction on 02/09/2009. The first turbine was commissioned on [17/12/2009], And all sets of turbine have been put into operation gradually till [09/06/2010].
The project implementation follows monitoring plan in the registered PDD.

B.2. Post registration changes

B.2.1. Temporary deviations from registered monitoring plan or applied methodology

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The monitoring for this project during this monitoring period is conducted in accordance with the MP of the registered PDD and applied methodology. Thus, temporary deviation did not occur and thus is not applicable for the project.

B.2.2. Corrections

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The monitoring for this project during this monitoring period is conducted in accordance with the MP of the registered PDD and applied methodology. Thus, corrections did not occur and thus is not applicable for the project.

B.2.3. Permanent changes from registered monitoring plan or applied methodology

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The monitoring for this project during this monitoring period is conducted in accordance with the MP of the registered PDD and applied methodology. Thus, permanent changes did not occur and thus is not applicable for the project.

B.2.4. Changes to project design of registered project activity

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The monitoring for this project during this monitoring period is conducted in accordance with the MP of the registered PDD and applied methodology. Thus, changes to project design of registered project activity did not occur and thus is not applicable for the project.

B.2.5. Changes to start date of crediting period

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Start date is changed from 01/04/2011 to 16/2/2011, the same as the date in the registered PDD.

B.2.6. Types of changes specific to afforestation or reforestation project activity

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This is not applicable since the project is not afforestation or reforestation project activities

SECTION C. Description of monitoring system

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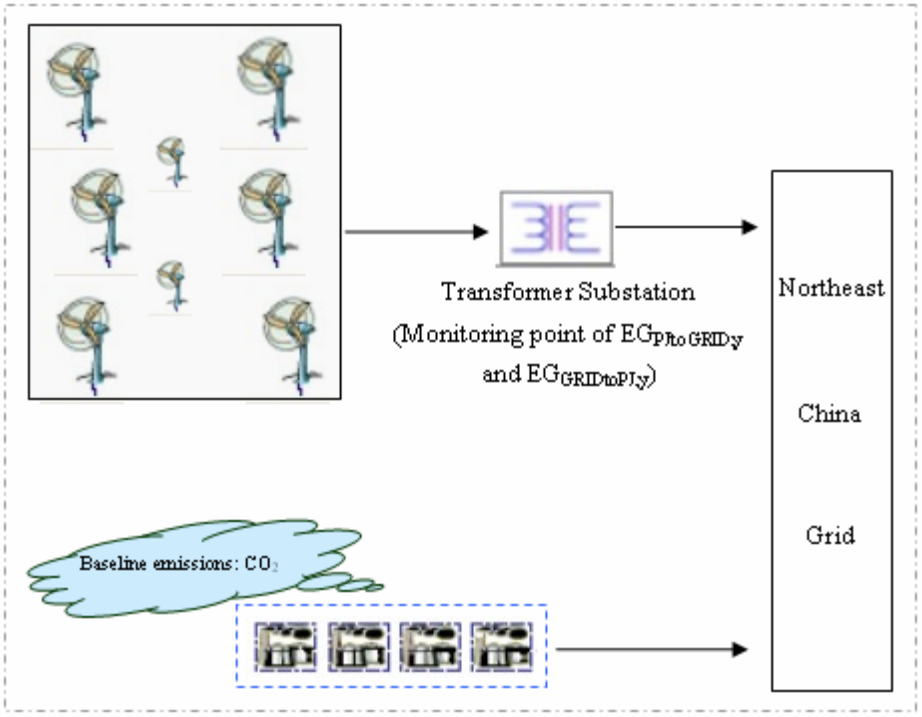
Monitoring System

The net electricity generation is monitored through the main metering equipment, recording exports to the grid (supply) and imports from the grid (consumption). Net generation supplied is calculated as exports

minus imports. The backup meter is also installed at the same substation. The accuracy of the meters is 0.2s.

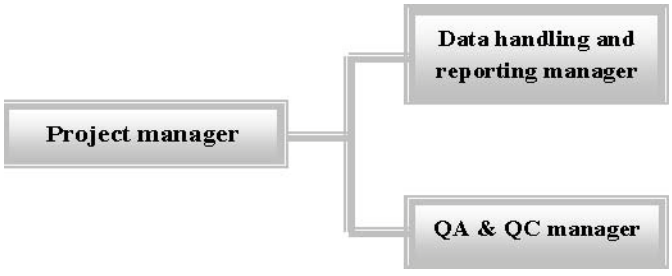


Data Collection Procedures

- Electricity generated by project and electricity imported from grid are continuously measured by Monitoring meter and monthly recorded by appointed staff.
- As per the regulation of the grid company, the designated personnel from Grid Company and the project owner record meter reading at 24:00 of last day of each month on receipts.
- Based on the Monthly Reading Records, the grid company issue electricity transaction.
- wind farm cross checked with receipts and reports of the readings to the DOE before the verification is requested.

Organizational structure

The monitoring plan of the project is executed by the project owner. The project owner established a CDM team to monitor all parameters mentioned in the monitoring plan and the structure is shown as below:



Roles and responsibilities

The Project manager supervises the whole monitoring activities and management. And all the monitored data was recorded by Reporting manager and checked by QA & QC manager. The QA & QC manager is also duty on maintenance of the meters.

Emergency procedures

A main meter and a back-up meter are installed at Transformer Substation to monitor electricity delivered to Northeast China Grid. The back-up meter will be used for measurement if the main meter failures to function in a normal or satisfactory manner.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante or at renewal of crediting period

Data/Parameter	EF
Unit	tCO_2/MWh
Description	Emission factor which is ex-anted according to the applied methodology.
Source of data	Baseline Emission Factors for Power Grids in China, sourced from China Energy Statistical Yearbook, China Electric Power Yearbook and 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Value(s) applied	1.028025
Purpose of data	The data is used for the baseline emission calculation.
Additional comment	The baselines emission factor was determined ex ante and will be used throughout the first crediting period.

D.2. Data and parameters monitored

Data/Parameter	$EG_{PJ,y}$
Unit	MWh
Description	Net electricity supplied to the grid by the project in period y
Measured/Calculated /Default	Calculated as export of electricity ($EG_{Gen,y}$) minus consumption of electricity ($EG_{Cons,y}$).
Source of data	Monthly reading records of the main meter
Value(s) of monitored parameter	128,157.05
Monitoring equipment	
Measuring/Reading/ Recording frequency	Measuring continuously/ recording monthly
Calculation method (if applicable)	$EG_{PJ,y} = EG_{Gen,y} - EG_{Cons,y}$
QA/QC procedures	Cross check with the receipts of sales.
Purpose of data	Baseline emission calculation
Additional comment	-

Data/Parameter	**$EG_{Gen,y}$**
Unit	MWh
Description	The quantity of the electricity delivered to the grid by the proposed project
Measured/Calculated /Default	It is monitored continuously through the main meter installed in Transformer Substation. The results from the main meter are recorded by the developer at 24:00 on the last day of every month. But sometimes it would be shifted one or two days due to the grid company's workload.
Source of data	Monthly reading records of the main meter
Value(s) of monitored parameter	Detailed monthly data and calculation is presented in section E4 of the monitoring report. $EG_{Gen,y}$ during this monitoring period is 128,157.05 MWh.
Monitoring equipment	Type: ZMD402CT44.0457 Accuracy class:0.2s Serial number:94347011 Calibration frequency: Annual Date of last calibration:01/01/2011 02/06/2011
Measuring/Reading/ Recording frequency	Measuring continuously/ recording monthly
Calculation method (if applicable)	Not applicable
QA/QC procedures	Cross check with the receipts of sales.
Purpose of data	Baseline emission calculation
Additional comment	-

Data/Parameter	$EG_{Cons,y}$
Unit	MWh
Description	The quantity of the electricity purchase from the grid by the proposed project
Measured/Calculated /Default	It is monitored continuously through the main meter installed in Transformer Substation. The results from the main meter are recorded by the developer at 24:00 on aroud last day of every month and reported to the grid company. But sometimes it would be shifted one or two days due to the grid company's workload.
Source of data	Monthly reading records of the main meter
Value(s) of monitored parameter	Detailed monthly data and calculation is presented in section E4 of the monitoring report. $EG_{Gen,y}$ during this monitoring period is 205.59MWh.
Monitoring equipment	Type: ZMD402CT44.0457 Accuracy class:0.2s Serial number:94347011 Calibration frequency: Annual Date of last calibration:01/01/2011 02/06/2011
Measuring/Reading/ Recording frequency	Measuring continuously/ recording monthly
Calculation method (if applicable)	Not applicable
QA/QC procedures	Cross check with the receipts of sales.
Purpose of data	Baseline emission calculation
Additional comment	-

D.3. Implementation of sampling plan

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The parameters monitored described in section D.2 above are not involved the sampling approach.

SECTION E. Calculation of emission reductions or GHG removals by sinks

E.1. Calculation of baseline emissions or baseline net GHG removals by sinks

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The Baseline Emissions (BEy, in tCO_2**e**), for each year y, are calculated by multiplying the baseline emissions factor (EF, in tCO_2**e**/MWh) by the net supplied power of the project ($EG_{PJ,y,}$ in MWh), as follows:

$BEy = EG_{PJ,y} \cdot EF$

The baseline emissions factor (EF) is calculated using operating and build margins as described in detail in section B6.1 of registered PDD.

Net electricity supplied to the grid by the project in the first monitoring period.

Period	EG_{Gen} (MWh)	EG_{Cons} (MWh)	EG_{PJ} (MWh)
16/2/2011-28/2/2011	6291.81	2.03	
1/3/2011-31/3/2011	14181.37	4.90	
1/4/2011-30/4/2011	14502.60	6.51	
1/5/2011-31/5/2011	10758.30	4.20	
1/6/2011-30/6/2011	15569.89	13.30	
1/7/2011-31/7/2011	6997.20	12.11	
1/8/2011-31/8/2011	2915.78	23.73	
1/9/2011-30/9/2011	2819.46	2.38	
1/10/2011-31/10/2011	9752.75	9.03	
1/11/2011-30/11/2011	732.13	15.82	
1/12/2011-30/12/2011	10861.06	44.31	
1/1/2012-31/1/2012	3510.29	37.73	
1/2/2012-29/2/2012	8079.19	7.14	
1/3/2012-31/3/2012	9222.64	8.96	
1/4/2012-30/4/2012	5944.75	4.83	
1/5/2012-31/5/2012	6223.42	8.61	
Total	128,362.64	205.59	128,157.05

The baseline emission in the first monitoring period (16/02/2011-31/05/2012) is as follow:

Period	EG_{PJ} (MWh)	EF (tCO2e/MWh)	BE (tCO2e)
16/02/2011-31/05/2012	128,362.64	1.028025	131,748.65

E.2. Calculation of project emissions or actual net GHG removals by sinks

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According to the ACM0002 (Version 12), the emissions of wind power project activity is zero, PEy=0

E.3. Calculation of leakage

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According to the applied methodology, as a renewable energy project, the project leakage of this project is zero

E.4. Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks

Time Period	Baseline emissions or baseline net GHG removals by sinks (tCO_2e)	Project emissions or actual net GHG removals by sinks (tCO_{2e})	Leakage (tCO_2e)	Emission reductions or net anthropogenic GHG removals by sinks (tCO_2e)
Total	**131,748.65**	**0**	**0**	**131,748.65**

E.5. Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

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_2e)	**132,290**	**131,748.65**

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

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The actual emission reductions during this monitoring period are tCO2e, which is lower than the estimation in the registered PDD.

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History of the document

Version	Date	Nature of revision
02.0	EB 66 13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01	EB 54, Annex 34 28 May 2010	Initial adoption.
Decision Class: Regulatory **Document Type**: Form **Business Function**: Issuance		