



**Monitoring report form for CDM project activity**  
**(Version 08.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**MONITORING REPORT**

<b>Title of the project activity</b>	CECIC Zhangbei Dayangzhuang Wind Farm Project		
<b>UNFCCC reference number of the project activity</b>	1855		
<b>Version number of the PDD applicable to this monitoring report</b>	04		
<b>Version number of this monitoring report</b>	01		
<b>Completion date of this monitoring report</b>	04/08/2021		
<b>Monitoring period number</b>	9 <sup>th</sup> monitoring period		
<b>Duration of this monitoring period</b>	27/10/2015-31/12/2019		
<b>Monitoring report number for this monitoring period</b>	NA		
<b>Project participants</b>	CECIC Wind Power (Zhangbei) Yunwei Co. Ltd. (Project owner) Amsterdam Capital Trading B.V. ACT Financial Solution B.V.		
<b>Host Party</b>	People's Republic of China		
<b>Applied methodologies and standardized baselines</b>	Applied methodologies: ACM0002"Consolidated baseline methodology for grid-connected electricity generation from renewable sources",Version 16.0.0 Standardized baselines: N/A		
<b>Sectoral scopes</b>	01 Energy industries (Renewable sources)		
<b>Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period</b>	<b>Amount achieved before 1 January 2013</b>	<b>Amount achieved from 1 January 2013 until 31 December 2020</b>	<b>Amount achieved from 1 January 2021</b>
	0	372,371	0
<b>Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD</b>	375,064		

## SECTION A. Description of project activity

### A.1. General description of project activity

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“CECIC Zhangbei Dayangzhuang Wind Farm Project (UNFCCC Reference Number: 1855)” was registered as a CDM project on 27/10/2008. The first 7 year renewable crediting period started on 27/10/2008 and expired on 26/10/2015. And the second crediting period is from 27/10/2015 to 26/10/2022.

CECIC Zhangbei Dayangzhuang Wind Farm Project (hereafter referred to as the project activity) is located in Zhangbei county, Hebei province, P.R. China. The project activity is the generation of electricity from wind and the supply of this electricity to the North China Power Grid (NCPG), and the project activity has installed and operates 66 wind turbines with a capacity of 750 kW each. According to the description of FSR, the available generation hour of the project is 1950 hours with a load factor of 0.2226 which considered the wind resource analysis data from 1971 to 2006. Therefore, the project scenario is the installation of 49.5 MW of renewable energy power generation capacity. As the NCPG is dominated by fossil fuel-fired power generation, the establishment of the project activity will lead to greenhouse gas (GHG) emission reductions.

This monitoring period is from 27/10/2015 to 31/12/2019. The emission reductions in this monitoring period is 372,371 tCO<sub>2</sub>.

### A.2. Location of project activity

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The project activity is located in the southwest of Zhangbei county, Hebei province, P.R. China. The geographic coordinate of the project site is longitude 114°33'4" East to 114°37'23" East and latitude 41°07'22" North to 41°10'36" North. The altitude of the site ranges from 1422m to 1562m above mean sea level. Figure 1 shows the location of the project activity.

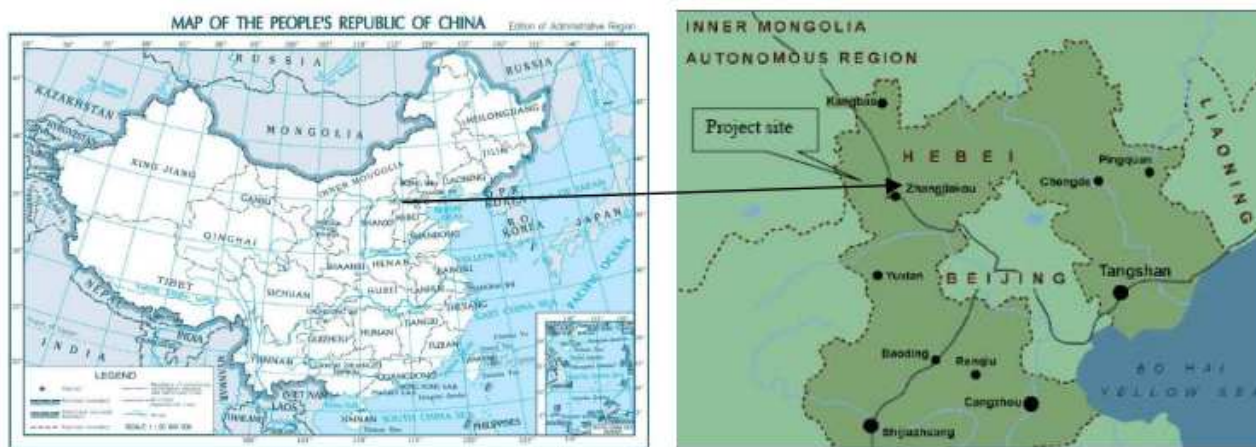


Figure 1. Location of the project activity

### A.3. Parties and project participants

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
People's Republic of China (host)	CECIC Wind Power (Zhangbei) Yunwei Co., Ltd.	No
Netherlands	Amsterdam Capital Trading B.V.	No
Netherlands	ACT Financial Solution B.V.	No

**A.4. References to applied methodologies and standardized baselines**

&gt;&gt;

The project activity applies the approved consolidated baseline methodology ACM0002 (Version 16.0.0): "Consolidated baseline methodology for grid-connected electricity generation from renewable sources".

The tools below applied to the project activity were used with the methodology:

> Tool to calculate the emission factor for an electricity system (Version 04.0)

For more information on the baseline and monitoring methodology please refer to the UNFCCC website:

<https://cdm.unfccc.int/methodologies/PAmethodologies/approved>

**A.5. Crediting period type and duration**

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The project employs the renewable crediting period (7 years×3). The first crediting period is 27/10/2008-26/10/2015 (7 years). The second crediting period is 27/10/2015-26/10/2022 (7 years).

**SECTION B. Implementation of project activity****B.1. Description of implemented project activity**

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According to the analysis in the FSR approved by local government, the net average operation hours of the project activity is 1950h, and the project activity provides total installed capacity of 49.5MW. The electricity generated from the project is transmitted to Zhangbei 220kV substation of NCPG.

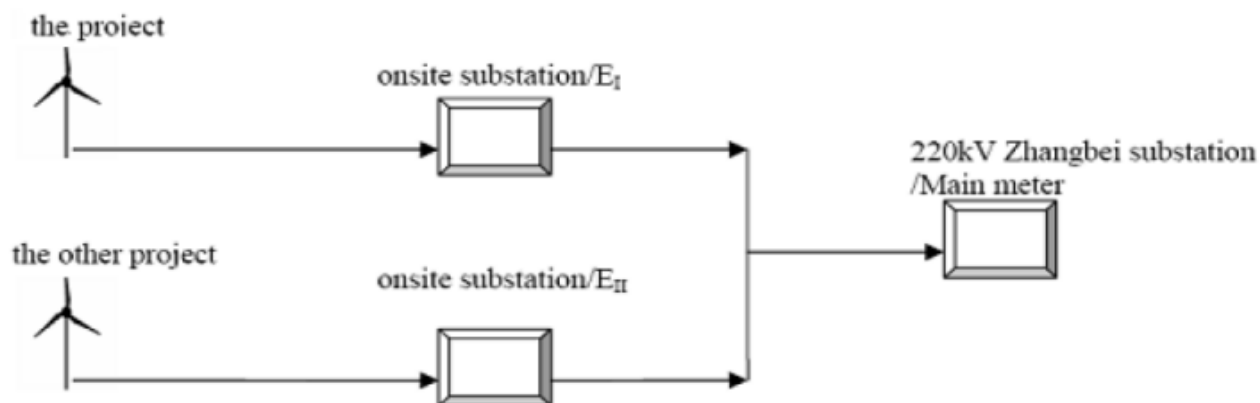
Based on the condition of the project site, the project installed and operated 66 wind turbines of 750kW. The selected turbines are manufactured by Zhejiang Windey Wind Generating Engineering Co., Ltd. It is planned that the project activity will be operational for a minimum of 21 years. The detailed parameters of selected turbines are provided in table 1.

Table 1 Key technology to be employed at the project wind farm

Parameter	Value
Manufacture	Zhejiang Windey Wind Generating Engineering Co., Ltd.
Model	WD49/750kW
Rated power (kW)	750
Number of rotors	3
Rotor diameter (m)	49
Swept area (m <sup>2</sup> )	1886
Rated rotor speed (rpm)	15
Cut-in wind speed (m/s)	3.5
Rated wind speed (m/s)	15
Cut-out wind speed (m/s)	23
Hub height of the wind turbines (m)	50-65
Rated Voltage	690

Each wind turbine has a transformer from 690V to 35KV. The project activity installed one 110kV/35kV transformer with the capacity of 50MVA. The wind farm is connected with the expanded 110kV substation, and then connected with 220kV Zhangbei substation via 110kV transmission line.

The electricity supplied to NCPG by CECIC Zhangbei Dayangzhuang Wind Farm Project shared one electric flow meter (the main meter) at 220kV level with another wind farm (UNFCCC ref:4095, CECIC Zhangbei Gaojialiang Wind farm Project), so the meter at 220kV level measures the total electricity exchanged between NCPG and the two wind farms.



Relevant dates for the Project are as follows:

Construction start date for the project is 28/01/2008;

First wind turbine commission start date is 11/05/2008;

Full operation commission start date is 28/06/2008;

Date of CDM registration is 27/10/2008;

First renewable crediting period is 27/10/2008-26/10/2015 (renewable);

Second renewable crediting period is 27/10/2015-26/10/2022 (renewable).

During this monitoring period, the wind farm has a good running, smooth data transfer and grid connection, and no special events happened that may impact the applicability of the applied methodology.

Figure 2 shows the diagram of the technical process of the project activity.

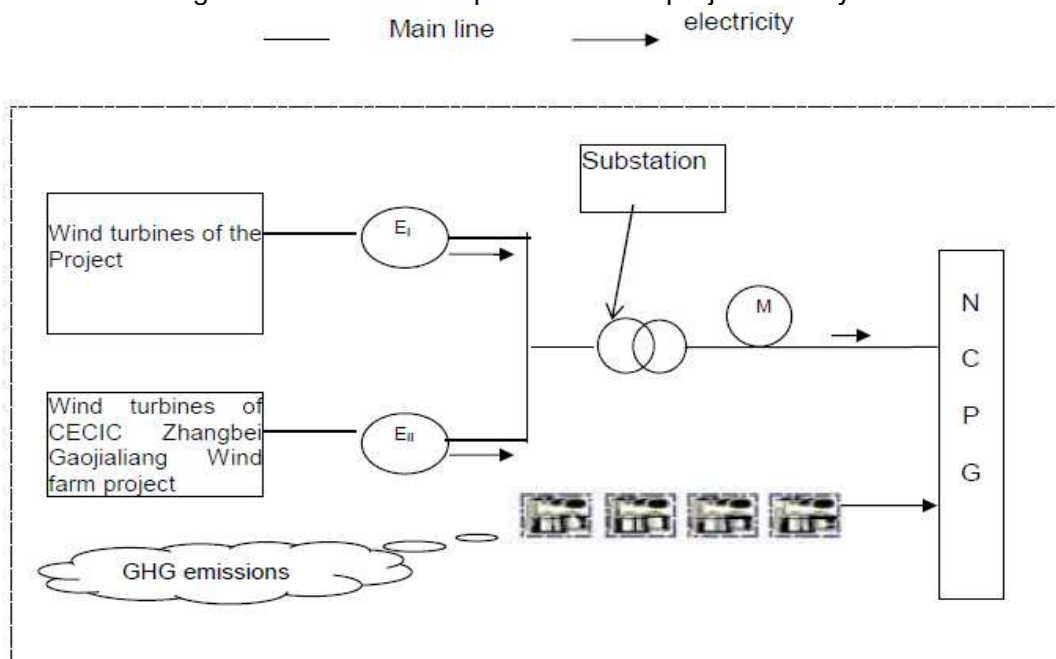


Figure 2. Diagram of the technical process of the project activity.

## B.2. Post-registration changes

### B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

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The project activity is implemented as the registered PDD and no deviation applied to this monitoring period.

**B.2.2. Corrections**

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The project activity is implemented as the registered PDD and no corrections applied to this monitoring period.

**B.2.3. Changes to the start date of the crediting period**

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There is no change to start date of crediting period.

**B.2.4. Inclusion of monitoring plan**

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Not applicable.

**B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents**

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The project activity is implemented as the registered monitoring plan and no changes happened.

**B.2.6. Changes to project activity design**

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The project activity is implemented as the registered PDD and no changes happened.

**B.2.7. Changes specific to afforestation or reforestation project activity activity**

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Not applicable.

**SECTION C. Description of monitoring system**

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**1. Introduction**

The approved baseline methodology ACM0002 "Grid-connected electricity generation from renewable sources" is adopted for developing the monitoring plan.

**2. Organizational structure and responsibilities**

Overall responsibility for monitoring and carrying out the monitoring following this monitoring plan lies with CECIC Wind Power (Zhangbei) Yunwei Co., Ltd. The CDM manager of CECIC Wind Power (Zhangbei) Yunwei Co. Ltd is responsible for the monitoring and reporting of the wind farm.

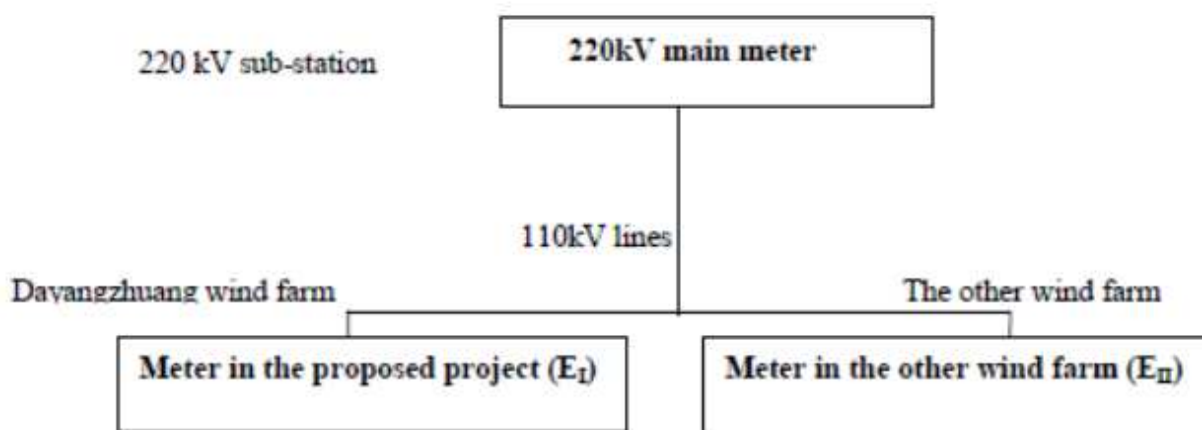
The operating and management structure is illustrated as follows:



### 3. Installation of meters

The electricity supplied to the grid and the electricity imported from the grid base on the main meter installed in Zhangbei 220kV sub-station. Every month Zhangbei 220kV substation reports the electricity exchanged between the project and NCPG via the Zhangbei 220kV substation. The main metering system equipment and the backup metering system equipment were calibrated and maintained by NCPG.

The electricity supplied to NCPG by the project shares one electric flow meter (the main meter) at 220kV level with another wind farm as the following figure shows, so the meter at 220KV level measures the total electricity exchanged between NCPG and the two wind farms.



In the monitoring, NCPG takes independent responsibility to operate the 220kV sub-station and read the main meter installed at the 220kV sub-station. The data gained from the main meter is the total power supply ( $EG_{total}$ ). The data gained from the meter at 110 kV level installed in the project is  $E_I$ . The data gained from the meter at 110 kV level installed in the other wind farm is  $E_{II}$ . So, the electricity delivered by the proposed project ( $EG_{export}$ ) can be calculated as:

$$EG_{export} = EG_{total} \times \frac{E_I}{E_I + E_{II}}$$

The electricity imported from the grid by the project and the other wind farm shares the same main meter too. So the meter readings the main meter recorded should be the sum of the two wind

farms. To be conservative, the imported electricity measured by the main meter is considered as the electricity imported by the project.

#### 4. Monitored data

The main monitored data of the project is the electricity delivered to the grid by the project ( $EG_{\text{export}}$ ) and the power imported from the grid ( $EG_{\text{import}}$ ). The net generation is calculated as exports minus imports.

#### 5. Calibration

The metering equipments are calibrated and checked for accuracy according to local industry standards to make sure that any error resulting from such equipment is exceed 0.5% of full-scale rating. The net generation output registered by the meters alone suffices for the purpose of billing and emission reduction verification as long as the error in the meters is within the agreed limits.

Both meters shall be jointly inspected and sealed on behalf of the parties concerned and shall not be interfered with by either party except in the presence of the other party or its accredited representatives.

Calibration is carried out by the qualified third party with the records being supplied to the wind farm, and these records is maintained by the Wind farm and the third party appointed by DOE.

All the meters installed shall be tested 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 operate in accordance with the specifications.

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 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 with acceptable limits of accuracy or operation is performed improperly, the proposed Wind farm and the NCPG shall jointly prepare a reasonable and conservative estimate of the correct reading, and provide sufficient evidence that this estimation is reasonable and conservative when DOE undertakes verification; and (c) if the NCPG and the Wind farm fail to agree then the matter will be referred for arbitration according to agreed procedures.

#### 6. Data collection and management system

- Zhangjiakou Electric Power Company reads main meter and reports the result to NCPG Company monthly.
- Zhangjiakou Electric Power Company supplies reading to the wind farm monthly.
- The wind farm records readings from the backup meter monthly.
- The wind farm carries out an internal audit on the readings and calculations.
- The wind farm calculates the emission reductions after each monitoring period.

Physical document such as paper-based maps, diagrams and environmental assessments is collated in a central place, together with this monitoring plan. In order to facilitate auditors' reference of relevant literature relating to the Wind farm project, the project material and monitoring results are indexed. All paper-based information is stored by the technology department of the Wind farm and all the material have a copy for backup.

And all data including calibration records is kept until 2 years after the end of the total crediting period of the CDM project.

#### 7. Quality control

Monthly net generation data is approved and signed off by CDM manager before it is accepted and stored.

This audit checks compliance with operational procedures in this monitoring plan.

This internal audit identifies potential improvements to procedures to improve monitoring and reporting in future years. If such improvements are proposed these is reported to the DOE and only operated after approval from the DOE.

## SECTION D. Data and parameters

### D.1. Data and parameters fixed ex ante

(Copy this table for each data or parameter.)

The parameters (internal power consumption of power plants,  $FC_{i,y}$ , Efficiency of the advanced thermal power plant additions, capacity by power generation source, oxidation factor,  $NCV_{i,y}$ ,  $EF_{CO2,i,y}$ ,  $EG_{m,y}$ , Efficiency of the advanced thermal power plant additions) used for calculation of the baseline grid emission factor ( $EF_{grid,CM,y}$ ) available at validation in the registered PDD are replaced by the parameter of  $EF_{grid,CM,y}$  directly here.

Data/Parameter	$EF_{grid,CM,y}$
Unit	tCO <sub>2</sub> e/MWh
Description	Combined margin CO <sub>2</sub> emission factor for grid connected power generation in year y
Source of data	Registered PDD
Value(s) applied	0.92875
Choice of data or measurement methods and procedures	N/A
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	This parameter is ex ante determined in PDD and fixed during the second crediting period.

### D.2. Data and parameters monitored

(Copy this table for each data or parameter.)

Data/Parameter	$E_i$
Unit	MWh
Description	Electricity exported to the grid by the project (CECIC Zhangbei Dayangzhuang Wind Farm Project).
Measured/calculated/default	Measured
Source of data	Meter reading record of onsite substation $E_i$ meter
Value(s) of monitored parameter	423,114.503
Monitoring equipment	onsite substation $E_i$ meter: Accuracy class: 0.2S Serial number: 130684955727 Model:DTZ178 Calibration frequency: annually Calibration date: 10/06/2015, 07/06/2016, 02/06/2017, 28/05/2018 and 22/05/2019 Validity: Yes
Measuring/reading/recording frequency	Measuring continuously and recording weekly (each Sunday at 24:00 and last day of the month)



Calculation method (if applicable)	N/A
QA/QC procedures	Electricity was measured continuously by the meter E <sub>I</sub> . Trained Staff from the Wind Farm recorded the meter readings manually on a weekly/monthly basis (each Sunday at 24:00 and last day of the month). Reading records were saved as both hard and electrical copy. The meter readings were also transferred via a remote transmission line to the grid company. The meter was calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

<b>Data/Parameter</b>	E <sub>II</sub>
Unit	MWh
Description	Electricity exported to the grid by the other Project (Gaojialiang project)
Measured/calculated/default	Measured
Source of data	Meter reading record of onsite substation E <sub>II</sub> meter
Value(s) of monitored parameter	411,818.910
Monitoring equipment	onsite substation E <sub>II</sub> meter: Serial number: 130684955738 Accuracy class: 0.2S Model: DTZ178 Calibration frequency: annually Calibration date:10/06/2015, 07/06/2016, 02/06/2017, 28/05/2018 and 22/05/2019 Validity: Yes
Measuring/reading/recording frequency	Measuring continuously and recording weekly (each Sunday at 24:00 and last day of the month)
Calculation method (if applicable)	N/A
QA/QC procedures	Electricity was measured continuously by the meter E <sub>II</sub> . Trained Staff from the Wind Farm recorded the meter readings manually on a weekly/monthly basis (each Sunday at 24:00 and last day of the month). Reading records were saved as both hard and electrical copy. The meter readings were also transferred via a remote transmission line to the grid company. The meter was calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

<b>Data/Parameter</b>	EG <sub>total</sub>
Unit	MWh
Description	Electricity exported to the grid by the project and the other project which share the same main meter with the project
Measured/calculated/default	Measured
Source of data	Meter reading record of main meter at 220kV substation of power grid
Value(s) of monitored parameter	824,327.886

Monitoring equipment	Main meter (M) at 220kV substation of power grid Type: electricity meter Serial number: 200407007Z0071 Model (M):DSSD331 Accuracy class: 0.2S Calibration frequency: annually Calibration date: 10/06/2015, 07/06/2016, 02/06/2017, 28/05/2018 and 22/05/2019 Validity: Yes
Measuring/reading/recording frequency	Measuring continuously and recording monthly
Calculation method (if applicable)	N/A
QA/QC procedures	Electricity was monitored continuously by grid company at 220kV substation. The data was monthly recorded. Monthly records from grid company was issued, stamped and sent to project owner. Monthly electricity exported to the grid by the project and the other project is cross-checked against sales receipts. The meter was calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

<b>Data/Parameter</b>	EG <sub>import</sub>
Unit	MWh
Description	Quantity of annual electricity imported from the grid by the project
Measured/calculated/default	Measured
Source of data	Meter reading record of main meter at 220kV substation of power grid
Value(s) of monitored parameter	5,643.611
Monitoring equipment	Main meter (M) at 220kV substation of power grid Type: electricity meter Serial number: 200407007Z0071 Model (M):DSSD331 Accuracy class: 0.2S Calibration frequency: annually Calibration date: 10/06/2015, 07/06/2016, 02/06/2017, 28/05/2018 and 22/05/2019 Validity: Yes
Measuring/reading/recording frequency	Measuring continuously and recording monthly
Calculation method (if applicable)	N/A
QA/QC procedures	Electricity was measured continuously by grid company at 220kV substation. The data was recorded and summarized monthly. Monthly records from grid company was issued, stamped and sent to project owner. Monthly electricity imported from the grid by the project is cross checked against sales receipts. The meter was calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

<b>Data/Parameter</b>	EG <sub>export</sub>
Unit	MWh
Description	Quantity of annual electricity exported to the grid by the project
Measured/calculated/default	Calculated
Source of data	Meter reading from E <sub>I</sub> , E <sub>II</sub> and EG <sub>total</sub>
Value(s) of monitored parameter	406,581.609
Monitoring equipment	N/A
Measuring/reading/recording frequency	N/A
Calculation method (if applicable)	$EG_{\text{export}} = EG_{\text{total}} \times E_I / (E_I + E_{II})$
QA/QC procedures	Electricity was recorded by grid company at 220kV substation. The data was monthly recorded. Monthly records from grid company was issued, stamped and sent to project owner. Monthly electricity exported to the grid by the project is cross-checked against sales receipts. The meter was calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

<b>Data/Parameter</b>	EG <sub>y</sub>
Unit	MWh
Description	The net electricity supplied to the grid by the project
Measured/calculated/default	Calculated
Source of data	Meter readings from E <sub>I</sub> , E <sub>II</sub> , EG <sub>total</sub> and EG <sub>import</sub>
Value(s) of monitored parameter	400,937.998
Monitoring equipment	N/A
Measuring/reading/recording frequency	N/A
Calculation method (if applicable)	It was calculated from equation: $EG_{\text{export}} = EG_{\text{total}} \times E_I / (E_I + E_{II})$ $EG_y = EG_{\text{export}} - EG_{\text{import}}$
QA/QC procedures	The data are calculated by project owner before reported to DOE. Internal auditing reduced the risk of error caused by data transfer and calculation mistakes. Monthly electricity exported to the grid and imported from the grid by the project is cross-checked against sales receipts. The meters were calibrated according to the Chinese industrial standard. The calibration is carried out annually by a qualified organization with the records being supplied to the grid company and project owner.
Purpose of data/parameter	Calculation of baseline emissions
Additional comments	-

### D.3. Implementation of sampling plan

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Not applicable.

**SECTION E. Calculation of emission reductions or net anthropogenic removals****E.1. Calculation of baseline emissions or baseline net removals**

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The baseline emissions in year y is calculated as

$$BE_y = EG_y \times EF_y$$

The detailed calculation of  $EG_y$  is calculated below:

$$EG_{\text{export}} = EG_{\text{total}} \times E_I / (E_I + E_{II})$$

$$EG_y = EG_{\text{export}} - EG_{\text{import}}$$

The detailed calculation of  $EG_y$  is calculated below:

Period	$E_I$ (MWh)	$E_{II}$ (MWh)	$EG_{\text{total}}$ (MWh)	$EG_{\text{export}}$ (MWh)	$EG_{\text{import}}$ (MWh)	$EG_y$ (MWh)
27/10/2015-31/10/2015	1,141.280	1,047.370	2,153.992	1,030.784	6.482	1,024.302
01/11/2015-30/11/2015	9,724.290	8,463.280	17,913.220	8,335.615	59.435	8,276.180
01/12/2015-31/12/2015	10,442.480	10,143.270	20,022.337	9,865.658	83.442	9,782.216
01/01/2016-31/01/2016	9,683.290	8,328.100	17,992.482	8,319.357	67.385	8,251.972
01/02/2016-29/02/2016	10,128.190	9,387.280	19,482.784	9,371.557	110.573	9,260.984
01/03/2016-31/03/2016	9,736.290	8,826.050	18,302.982	8,702.730	90.425	8,612.305
01/04/2016-30/04/2016	8,212.760	7,707.530	15,862.482	7,679.543	62.653	7,616.890
01/05/2016-31/05/2016	8,940.270	8,866.550	17,786.310	8,856.337	60.535	8,795.802
01/06/2016-30/06/2016	5,242.430	5,164.270	10,221.274	5,072.253	139.375	4,932.878
01/07/2016 – 31/07/2016	6,712.760	6,836.230	13,492.121	6,807.536	116.485	6,691.051
01/08/2016-31/08/2016	5,325.520	5,246.650	10,468.529	5,195.216	89.747	5,105.469
01/09/2016-30/09/2016	6,368.370	6,292.480	12,492.727	6,208.922	94.537	6,114.385
01/10/2016-31/10/2016	8,979.510	8,890.270	17,624.182	8,768.084	66.837	8,701.247
01/11/2016-30/11/2016	9,263.290	8,762.380	17,918.294	8,710.183	89.464	8,620.719
01/12/2016-31/12/2016	10,413.460	10,074.280	19,630.317	9,652.665	52.493	9,600.172
01/01/2017-31/01/2017	9,639.872	7,851.080	17,451.590	7,833.411	63.453	7,769.958
01/02/2017-28/02/2017	9,152.021	9,462.470	18,521.382	9,415.139	153.583	9,261.556
01/03/2017-31/03/2017	9,724.290	8,831.050	18,105.238	8,616.832	110.337	8,506.495
01/04/2017-30/04/2017	8,291.220	8,402.160	16,392.232	8,250.585	82.642	8,167.943
01/05/2017-31/05/2017	7,923.210	8,466.270	16,046.953	8,289.331	80.053	8,209.278
01/06/2017-30/06/2017	6,234.290	6,064.530	12,022.647	5,928.349	130.827	5,797.522
01/07/2017 – 31/07/2017	5,764.290	5,936.020	11,604.284	5,887.302	121.124	5,766.178
01/08/2017-31/08/2017	5,314.770	5,385.480	10,679.928	5,375.251	127.640	5,247.611

01/09/2017-30/09/2017	6,212.270	6,001.230	12,185.482	5,987.463	85.944	5,901.519
01/10/2017-31/10/2017	8,879.230	8,792.450	17,634.834	8,774.117	76.753	8,697.364
01/11/2017-30/11/2017	9,214.260	9,563.260	18,554.320	9,449.585	100.533	9,349.052
01/12/2017-31/12/2017	10,582.940	9,674.280	19,654.284	9,386.334	86.453	9,299.881
01/01/2018-31/01/2018	9,647.530	9,241.020	18,451.234	9,027.067	73.932	8,953.135
01/02/2018-28/02/2018	9,154.020	8,562.420	17,422.274	8,420.248	164.543	8,255.705
01/03/2018-31/03/2018	8,317.270	8,041.750	16,205.320	7,966.194	140.353	7,825.841
01/04/2018-30/04/2018	8,537.480	8,529.830	16,604.388	8,298.472	112.647	8,185.825
01/05/2018-31/05/2018	7,224.280	7,173.350	14,596.782	7,272.573	69.028	7,203.545
01/06/2018-30/06/2018	6,242.420	6,162.420	12,322.375	6,121.453	110.854	6,010.599
01/07/2018 – 31/07/2018	6,792.370	6,636.240	13,272.471	6,559.078	101.634	6,457.444
01/08/2018-31/08/2018	6,315.550	6,226.580	12,368.574	6,140.417	115.569	6,024.848
01/09/2018-30/09/2018	7,247.280	8,396.750	15,492.573	8,315.457	946.693	7,368.764
01/10/2018-31/10/2018	9,853.520	9,690.480	19,387.954	9,613.107	78.678	9,534.429
01/11/2018-30/11/2018	9,214.480	7,763.360	16,913.820	7,734.085	120.684	7,613.401
01/12/2018-31/12/2018	11,175.970	11,694.640	22,654.758	11,584.266	132.832	11,451.434
01/01/2019-31/01/2019	11,674.960	11,351.570	22,396.857	11,041.155	93.453	10,947.702
01/02/2019-28/02/2019	11,148.570	11,554.360	22,246.128	11,321.876	94.575	11,227.301
01/03/2019-31/03/2019	9,317.240	9,148.250	18,295.274	9,063.920	100.325	8,963.595
01/04/2019-30/04/2019	8,291.120	8,802.430	16,729.593	8,615.008	125.323	8,489.685
01/05/2019-31/05/2019	6,928.240	6,716.340	13,504.530	6,647.402	60.424	6,586.978
01/06/2019-30/06/2019	6,242.480	6,164.160	12,322.436	6,122.323	70.832	6,051.491
01/07/2019 – 31/07/2019	5,774.390	5,974.290	11,653.953	5,926.120	101.153	5,824.967
01/08/2019-31/08/2019	6,315.520	6,224.580	12,468.937	6,189.256	105.753	6,083.503
01/09/2019-30/09/2019	7,215.370	7,803.580	14,894.856	7,739.102	94.534	7,644.568
01/10/2019-31/10/2019	9,874.730	9,792.570	19,434.674	9,676.742	78.823	9,597.919
01/11/2019-30/11/2019	10,814.480	9,965.740	20,413.275	9,789.761	89.325	9,700.436
01/12/2019-31/12/2019	12,548.380	11,735.930	24,057.643	11,626.388	52.434	11,573.954
<b>Total</b>	423,114.503	411,818.910	824,327.886	406,581.609	5,643.611	400,937.998

The detailed calculation of BE<sub>y</sub> is calculated below:

Period	EG <sub>y</sub> (MWh)	EF <sub>grid,CM,y</sub> (tCO <sub>2</sub> e/MWh)	BE <sub>y</sub> (MWh)
27/10/2015-31/12/2019	400,937.998	0.92875	372,371

## E.2. Calculation of project emissions or actual net removals

>>

The project is wind power project, and the project emissions should not be considered as per the methodology ACM0002, PE<sub>y</sub> = 0 tCO<sub>2</sub>e.

## E.3. Calculation of leakage emissions

>>

As per the methodology ACM0002 (v16.0.0), no leakage needs to be considered.□

## E.4. Calculation of emission reductions or net anthropogenic removals

	Baseline GHG emissions or baseline net GHG removals (t CO <sub>2</sub> e)	Project GHG emissions or actual net GHG removals (t CO <sub>2</sub> e)	Leakage GHG emissions (t CO <sub>2</sub> e)	GHG emission reductions or net anthropogenic GHG removals (t CO <sub>2</sub> e)			
				Before 01/01/2013	From 01/01/2013 until 31/12/2020	From 01/01/2021	Total amount
<b>Total</b>	372,371	0	0	0	372,371	0	372,371

## E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD

Amount achieved during this monitoring period (t CO <sub>2</sub> e)	Amount estimated ex ante for this monitoring period in the PDD (t CO <sub>2</sub> e)
372,371	375,064

### E.5.1. Explanation of calculation of “amount estimated ex ante for this monitoring period in the PDD”

>>

The estimated annual emission reductions are 89,652 tCO<sub>2</sub>e as per renewed PDD. This monitoring period covers 1527 days,  $89,652 \times 1527 \div 365 = 375,064$  tCO<sub>2</sub>e.

## E.6. Remarks on increase in achieved emission reductions

>>

The amount of achieved emission reduction during this monitoring period is 372,371 tCO<sub>2</sub>e, which is lower than the amount estimated ex ante for this monitoring period in the PDD.

## E.7. Remarks on scale of small-scale project activity

>>

N/A.

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**Document information**

<i>Version</i>	<i>Date</i>	<i>Description</i>
08.0	6 April 2021	Revision to: <ul style="list-style-type: none"> <li>• Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).</li> </ul>
07.0	31 May 2019	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 02.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN);</li> <li>• Add a section on remarks on the observance of the scale limit of small-scale project activity during the crediting period;</li> <li>• Add "changes specific to afforestation or reforestation project activity" as a possible post-registration changes;</li> <li>• Clarify the reporting of net anthropogenic GHG removals for A/R project activities between two commitment periods;</li> <li>• Make editorial improvements.</li> </ul>
06.0	7 June 2017	Revision to: <ul style="list-style-type: none"> <li>• Ensure consistency with version 01.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN);</li> <li>• Make editorial improvements.</li> </ul>
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> <li>• Include provisions related to delayed submission of a monitoring plan;</li> <li>• Provisions related to the Host Party;</li> <li>• Remove reference to programme of activities;</li> <li>• Overall editorial improvement.</li> </ul>
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> <li>• Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0));</li> <li>• Include provisions related to standardized baselines;</li> <li>• Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1;</li> <li>• Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>;</li> <li>• Editorial improvement.</li> </ul>
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB 70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01.0	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		