

**Gold standard for the global goals**  
**Monitoring report**



June 2017, version 1

<b>Title of the project</b>	CECIC HKC Danjinghe Wind Farm Project	
<b>Gold Standard project id</b>	GS6753	
<b>Version number of the monitoring report</b>	02	
<b>Completion date of the monitoring report</b>	05/08/2019	
<b>Date of project design certification</b>	08/04/2019	
<b>Start date of crediting period</b>	08/04/2017	
<b>Duration of this monitoring period</b>	(08/04/2017) to (30/09/2018)	
<b>Duration of previous monitoring period</b>	N/A	
<b>Project representative(s)</b>	CECIC HKC Wind Power Co., Ltd. P.R. China (host); Amsterdam Capital Trading BV (Buyer)	
<b>Host Country</b>	People Republic of China	
<b>Certification pathway (activity certification/impact certification)</b>	Impact Certification	
<b>SDG Contributions targeted (as per approved PDD)</b>	N/A	
<b>Gold Standard statement/product certification sought (GSVER/ADALYs/RECs etc.)</b>	GS CER	
<b>Selected methodology(ies)</b>	The approved large-scale consolidated methodology ACM0002: "Grid-connected electricity generation from renewable sources" (Version 19.0.0)"	
<b>Estimated amount of annual average certified SDG impact (as per approved PDD)</b>	<b>SDG-Impacts</b>	<b>Estimated amount</b>
	SDG-7 Affordable and Clean Energy	438,500MWh
	SDG-8 Decent Work and Economic Growth	40 people
	SDG-13-Climate Action	395,001tCO <sub>2</sub>
<b>Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period</b>	<b>SDG-Impacts</b>	<b>Estimated amount</b>
	SDG-7 Affordable and Clean Energy	686304.15 MWh
	SDG-8 Decent Work and Economic Growth	39people (2017 year) 40 people(2018 year)
	SDG-13-Climate Action	618,153tCO <sub>2</sub>

## SECTION A. Description of project

### A.1. Purpose and general description of project

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#### (1) Purpose of the project activity and the measure taken to reduce GHG emissions

The purpose of the CECIC HKC Danjinghe Wind Farm Project (hereinafter referred to as "the Project") is to generate renewable electricity using wind power resources and to sell the generated outputs to the North China Power Grid (NCPG) on the basis of a power purchase agreement (PPA). The project activity generates greenhouse gas (GHG) emission reductions by avoiding CO<sub>2</sub> emissions from electricity generation by fossil fuel power plants that supply to NCPG.

#### (b). Brief description of the installed technology and equipment

The project activity involves the installation and operation 54 wind turbines of 750kW, 100 wind turbines of 800kW and 53 wind turbines of 1500kW. Therefore, the total installed capacity of proposed wind farm is 200MW. Total of 438,550MWh clean electricity generated by the Project are expected to be delivered to the NCPG annually. Accordingly, the estimated annual GHG emission reductions of the Project are 395,001 tCO<sub>2</sub>e.

#### (c) Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.)

The Project started construction on 11/05/2007. The first wind turbine of the Project started commissioning on 21/01/2009. The Project was in full operation on 13/04/2010. The continued operation periods are 25 years. By now, no RECs has been applied for issuance from the date of project starting operation.

#### (d) Total emission reductions achieved in this monitoring period.

This proposed monitoring report is for the period from 08/04/2017 to 30/09/2018. Total emission reductions achieved in this monitoring period are 618,153 tCO<sub>2</sub>e.

### A.2. Location of project

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The CECIC HKC Danjinghe Wind farm is located in the northwest of Zhangbei County, which is in Hebei Province in the People's Republic of China. It is located at longitude from 114°16'56" to 114°25'11" East and latitude from 41°05'00" to 41°12'47" North. The altitude of the site ranges from 1410 m to 1610 m above mean sea level. Figure 1 shows the location of the project.

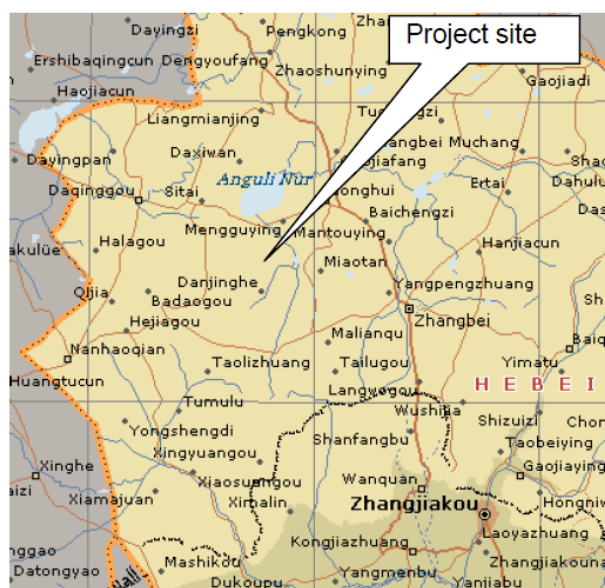


Figure A-1 The location of the project activity

A.3. Reference of applied methodology

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1.

The approved large-scale consolidated methodology ACM0002: "Grid-connected electricity generation from renewable sources" (Version 19.0);

2.

The approved "Tool to calculate the emission factor for an electricity system" (Version 07.0).

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Further information pertaining to the methodology can be obtained at: <http://cdm.unfccc.int/methodologies/PAMethodologies/approved.html>

## A.4. Crediting period of project

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The crediting period of CDM project is 3\*7 renewable crediting periods. The start and end dates of the crediting period corresponding to this monitoring period are respectively 29 /12/2015 and 28 /12/2022.

The crediting period for GS-CERs is 3\*5 renewable crediting periods. The start and end dates of the crediting period corresponding to this monitoring period are respectively 08 /04/ 2017 and 07 /04/2022.

## SECTION B. Implementation of project

### B.1. Description of implemented project

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The Project started construction on 11/05/2007. The first wind turbine of the Project started commissioning on 21/01/2009. The Project was put into full operation on 13/04/2010. The electricity generated by the Project is delivered to NCPG.

The proposed project will have a total installed capacity of 200 MW and the electricity supplied to the grid is expected to be 438,550 MWh annually at full capacity. The electricity generated from the project will be transmitted to Zhangbei substation of NCPG via a newly built 35kV/220kV transformer.

Based on the condition of the project site, the proposed project is to install and operate 54 wind turbines of 750kW, 100 wind turbines of 800kW and 53 wind turbines of 1500kW. The selected turbines were manufactured by Zhejiang Windy Wind Generating Engineering Co., Ltd. The detailed parameters of selected turbines are provided in Table 1.

**Table 1 Key Technology to be employed at the Project Wind Farm**

Key Technology Parameter	WD49/750KW	WD54/800KW	WD77/1500KW
Rotor diameter (m)	49	54	77
Swept area (m <sup>2</sup> )	1886	2290	4656
Number of Paddles	3	3	3
Rated rotor speed (rpm)	15	15	15
Cut-in wind speed (m/s)	3.5	3.5	3.5
Rated wind speed (m/s)	15	15	15
Cut-out wind speed (m/s)	23	25	20
Hub height of the wind	65	65	65

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turbines (m)			
Total Capacity (MW)	40.5	80	79.5
Number of turbines	54	100	53
Rated Voltage	690	690	690
Manufacture	Zhejiang Windey Wind Generating Engineering Co. Ltd.		

## B.2. Post-registration changes

### B.2.1. Temporary deviations from Certified Key Project Information, Project Design Document, Monitoring & Reporting Plan, applied methodology or applied standardized baseline

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*There is no temporary deviation from Certified Key Project Information, Project Design Document, Monitoring & Reporting Plan, applied methodology or applied standardized baseline.*

### B.2.2. Corrections

>> *(Indicate whether any corrections to project information or parameters fixed at validation have been applied.)*

No correction

### B.2.3. Changes to start date of crediting period

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No change

### B.2.4. Permanent changes from registered monitoring plan, applied methodology or applied standardized baseline

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*No permanent change*

### B.2.5. Changes to project design of approved project

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No change to project design of approved project

## SECTION C. Description of monitoring system applied by the project

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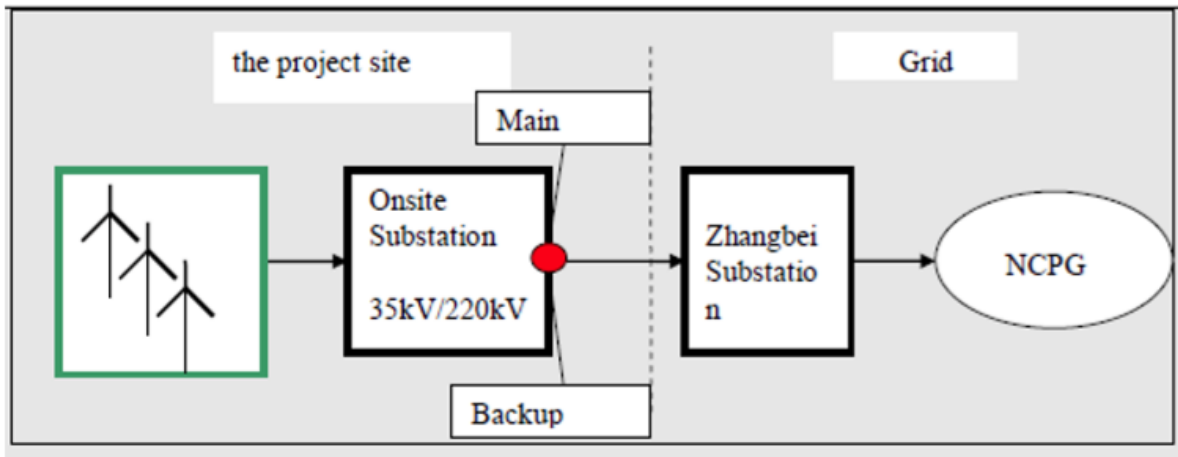
### Monitoring structure and responsibility

#### 1. Data collection and management

##### (1) Data generation and aggregation:

The net electricity generation of the Project was monitored through the main metering equipment installed at output side of the onsite substation, recording exports to the grid (supply) and imports from the grid (consumption). Net generation supplied is calculated as exports minus imports. The data were monitored continuously, and the results were recorded and supplied by the grid company to the developer monthly. The cut-off time is 24:00 of last day of each month during the crediting period. The monitoring points are shown as below:

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(2) **Data calculation:**

As described in the monitoring plan, the net electricity supplied to the grid by the project ( $EG_{facility,y}$ ) can be calculated as:

$$EG_{facility,y} = EG_{export} - EG_{import}$$

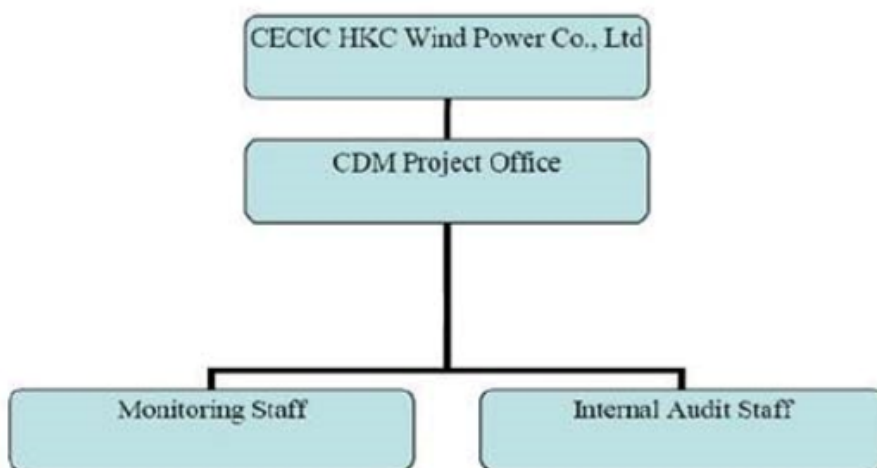
Where:  $EG_{facility,y}$  is the net electricity supplied to the grid by the project;

$EG_{export}$  is the electricity exported to the grid by the project;

$EG_{import}$  is the electricity imported from the grid by the project.

2. **Organizational structure and responsibilities**

Overall responsibility for monitoring and carrying out the monitoring following this monitoring plan lies with CECIC HKC Wind Power Co., Ltd. The CDM Manager of CECIC HKC Wind Power Co., Ltd is responsible for the monitoring and reporting of the wind farm. The net generated electricity from this project is monitored and recorded using one main meter and one backup meter. They are both installed at the output side of the onsite substation. The meter readings are used for both CDM purposes and sales of the electricity generated to the grid company. The CDM operating and management structure is illustrated as follows:



3. **Emergency Procedures**

Should any previous month's 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 CECIC HKC Wind Power Co., Ltd

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 CECIC HKC Wind Power Co., Ltd fail to agree then the matter would be referred for arbitration according to agreed procedures.

## SECTION D. Data and parameters

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

(Copy this table for each piece of data and parameter)

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data/Parameter</b>	$FC_{i,y}$
<b>Unit</b>	Mass or volume unit
<b>Description</b>	Amount of fossil fuel type i consumed in the NCPG in year y.
<b>Source of data</b>	China energy statistical yearbooks, 2012-2014
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or measurement methods and procedures</b>	The data obtained from the official publication China energy statistical yearbook, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0
<b>Purpose of data/parameter</b>	Calculation of baseline emissions
<b>Additional comments</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$NCV_{i,y}$
<b>Unit</b>	GJ/mass or volume unit
<b>Description</b>	Net calorific value (energy content) of fuel type i in year y.
<b>Source of data</b>	China energy statistical yearbooks, 2012-2014
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or Measurement methods and procedures</b>	The data obtained from the official publication China energy statistical yearbook, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$EF_{CO2,i,y}$
<b>Unit</b>	tCO <sub>2</sub> /GJ

<b>Description</b>	CO <sub>2</sub> emission factor of fuel type i in year y.
<b>Source of data</b>	2006 IPCC guidelines on national GHG inventories, Volume 2 Energy, Chapter 1, table 1.3-table 1.4
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or Measurement methods and procedures</b>	Regional or national average default values are unavailable, so IPCC default values at the lower limit of the uncertainty at a 95% confidence interval are used, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$GEN_y$
<b>Unit</b>	MWh
<b>Description</b>	Electricity generated by all power sources serving North China Power Grid in year y.
<b>Source of data</b>	China electric power yearbooks, v
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or Measurement methods and procedures</b>	Regional or national average default values are unavailable, so IPCC default values at the lower limit of the uncertainty at a 95% confidence interval are used, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$AER_y$
<b>Unit</b>	%
<b>Description</b>	Auxiliary electricity consumption rate of all power sources serving North China Power Grid.
<b>Source of data</b>	China electric power yearbooks, 2012-2014
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or Measurement methods and procedures</b>	Regional or national average default values are unavailable, so IPCC default values at the lower limit of the uncertainty at a 95% confidence interval are used, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$F_{i,j,y}$
<b>Unit</b>	mass or volume unit
<b>Description</b>	Consumption of fuel i in province j in year y.
<b>Source of data</b>	China electric power yearbooks, 2012-2014
<b>Value(s) applied</b>	See Appendix 4 in the registered PDD
<b>Choice of data or Measurement methods and procedures</b>	The data obtained from the official publication China energy statistical yearbook, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$EF_{Coal,Adv,y}$
<b>Unit</b>	tCO <sub>2</sub> /MWh
<b>Description</b>	Emission factor of the best efficiency, commercially available coal-fired generation technology.
<b>Source of data</b>	2015 baseline emission factors for regional power grids in China published by China DNA
<b>Value(s) applied</b>	0.7483
<b>Choice of data or Measurement methods and procedures</b>	The data obtained from the China DNA, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	-

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
<b>Data / Parameter</b>	$EF_{Oil,Adv,y}$
<b>Unit</b>	tCO <sub>2</sub> /MWh
<b>Description</b>	Emission factor of the best efficiency, commercially available oil-fired generation technology.
<b>Source of data</b>	2015 baseline emission factors for regional power grids in China published by China DNA
<b>Value(s) applied</b>	0.5138
<b>Choice of data or Measurement methods and procedures</b>	The data obtained from the China DNA, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0.

Purpose of data	Calculation of baseline emissions
Additional comment	-

Relevant SDG Indicator	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
Data / Parameter	$EF_{Gas, Adv, y}$
Unit	tCO <sub>2</sub> /MWh
Description	Emission factor of the best efficiency, commercially available gas-fired generation technology.
Source of data	2015 baseline emission factors for regional power grids in China published by China DNA
Value(s) applied	0.3695
Choice of data or Measurement methods and procedures	The data obtained from the China DNA, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	-

Relevant SDG Indicator	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
Data / Parameter	$CAP_{Total, y}$
Unit	MW
Description	Total installed capacity in North China Power Grid in year y
Source of data	China electric power yearbooks, 2012-2014
Value(s) applied	See Appendix 4 in the registered PDD
Choice of data or Measurement methods and procedures	The data obtained from the China DNA, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	-

Relevant SDG Indicator	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1 Energy intensity measured in terms of primary energy and GDP
Data / Parameter	$CAP_{Thermal, y}$
Unit	MW
Description	Total installed capacity of thermal power in North China Power Grid in year y
Source of data	China electric power yearbooks, 2012-2014
Value(s) applied	See Appendix 4 in the registered PDD

Choice of data or Measurement methods and procedures	The data obtained from the China DNA, satisfying the requirement of latest version of Tool to calculate the emission factor for an electricity system version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	-

Relevant SDG Indicator	<b>SDG-13</b>
Data/Parameter	$EF_{grid,CM,y}$
Unit	tCO <sub>2</sub> e/MWh
Description	Emission factor which is determined ex-ant according to the applied methodology.
Source of data	The renewable crediting period registered PDD
Value(s) applied	0.9007
Choice of data or measurement methods and procedures	The registered GS-PDD
Purpose of data/parameter	Baseline emissions calculations
Additional comments	The parameter of $EF_{grid, CM}$ which is the only to calculate baseline emissions during the monitoring period is ex ante fixed and calculated by the parameters in the section B.6.2 of the registered PDD. As per project standard, $EF_{grid,CM}$ as a result of the calculation of ex-ante fixed parameters is described in the morning report.

## D.2. Data and parameters monitored

Relevant SDG Indicator	<b>SDG 8-Decent work and economic growth</b> 8.3.1 Proportion of informal employment in non agriculture employment, by sex					
Data / Parameter	$N_{employment}$					
Unit	/					
Description	The decent work provided by the project activity including safety protection measures and training. The annual training time for different person worked for the project, the number of youth people (15-24 years) and others					
Source of data	The payment of staff, Company management document, safety and ecology department annual reports, staff training certificates					
Value(s) of monitored parameter	Year	$N_{employment}$	Proportion of informal employment in non agriculture by project activity	By sex (female proportion)	Proportion of trained people	the number of youth people (15-24 years)
	2017	39	53.85%	25.64%	100%	17
	2018	40	52.50%	25%	100%	17
Monitoring equipment	On site check for finance data, documents, reports and certificate					

Measuring/reading/recording frequency:	Annually
Calculation method (if applicable):	N/A
QA/QC procedures:	Through check the different documents and cross check the data from different sources, and on site interview with project workers
Purpose of data:	To check completeness of SDG.
Additional comments:	-

<b>Relevant SDG Indicator</b>	<b>SDG 8-Decent work and economic growth</b> 8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age 8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status 8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status		
<b>Data / Parameter</b>	Labour right and working environment		
<b>Unit</b>	/		
<b>Description</b>	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status, the status of compliance of labour rights		
<b>Source of data</b>	Company management document, safety and ecology department annual reports, staff training certificates.		
<b>Value(s) of monitored parameter</b>	<b>Year</b>	2017	2018
	Proportion and number of children aged 5-17 years engaged in child labour, by sex and age	o	o
	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status	No happened	No Happened
	Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Not reference	Not reference
	Labour right and working environment	Labour right and working environment provided by the project developer is one of best case of local city.	
<b>Monitoring equipment</b>	On site check for finance data, documents ,reports and certificate		
Measuring/reading/recording frequency:	Annually		
Calculation method (if applicable):	N/A		
QA/QC procedures:	Through check the different documents and cross check the data from different sources, and on site interview with project workers		
Purpose of data:	To check completeness of SDG.		

Additional comments:	-
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<b>Relevant SDG Indicator</b>	<b>SDG8-Decent work and economic growth</b> 8.1.1 Annual growth rate real GDP per capita 8.2.1 Annual Growth rate of real GDP per employed person 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities														
<b>Data / Parameter</b>	Local county GDP indictor														
<b>Unit</b>	%														
<b>Description</b>	The revenue from the proposed project, VAT, VAT plus and income tax to show the local county economic growth, Annual growth rate of real GDP capita, Annual growth rate of real GDP per employed person and financial institutions numbers.														
<b>Source of data</b>	Local county statistics, payment of workers														
<b>Value(s) of monitored parameter</b>	<table border="1"> <thead> <tr> <th>Year</th> <th>2017<sup>1</sup></th> <th>2018<sup>2</sup></th> </tr> </thead> <tbody> <tr> <td>Local city GDP indictor (increased)</td> <td>6.8%</td> <td>7.6%</td> </tr> <tr> <td>People Number</td> <td>0.4%</td> <td>0.16%</td> </tr> <tr> <td>Income increase</td> <td>11.4%</td> <td>11.5%</td> </tr> </tbody> </table>			Year	2017 <sup>1</sup>	2018 <sup>2</sup>	Local city GDP indictor (increased)	6.8%	7.6%	People Number	0.4%	0.16%	Income increase	11.4%	11.5%
Year	2017 <sup>1</sup>	2018 <sup>2</sup>													
Local city GDP indictor (increased)	6.8%	7.6%													
People Number	0.4%	0.16%													
Income increase	11.4%	11.5%													
<b>Monitoring equipment</b>	Check from local government public data and company finance data														
<b>Measuring/reading/recording frequency:</b>	Annually														
<b>Calculation method (if applicable):</b>	Using government pubic data														
<b>QA/QC procedures:</b>	Through check the different documents and cross check the data from different sources, especially from public government data.														
<b>Purpose of data:</b>	To check completeness of SDG.														
<b>Additional comments:</b>	-														

<b>Relevant SDG Indicator</b>	SDG 7- Affordable And Clean Energy, 7.1.1 Proportion of population with access to electricity 7.2.1 Renewable energy share in the total final energy consumption 7.3.1Energy intensity measured in terms of primary energy and GDP SDG8- Decent work and economic growth 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP SDG 13 –Climate change 13.1.3Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies		
<b>Data / Parameter</b>	EG <sub>facilityy</sub>		
<b>Unit</b>	MWh		
<b>Description</b>	The net electricity supplied to the grid by the project		
<b>Source of data</b>	Daily record, monthly report and invoices.		

<sup>1</sup> <http://tjj.zjk.gov.cn/Message.asp?AticleId=1026>

<sup>2</sup> <http://tjj.zjk.gov.cn/Message.asp?AticleId=1026>

Source of data	To be determined		
Value(s) of monitored parameter	Year	08/04/2017 to 31/12/2017	01/01-30/09/2018
	Unit	MWh	MWh
	Power delivered to the grid	307,270	380847
	Power imported from grid	781	1,031
	Net power output	306,489	379,816
Monitoring equipment	Double sides Meters		
Measuring/reading/recording frequency:	Continuously measured, daily record and monthly reported.		
Calculation method (if applicable):	$EG_{\text{facility},y} = EG_{\text{export}} - EG_{\text{import}}$		
QA/QC procedures:	Measured by calibration equipments and recorded by trained people. Data should be double checked by different departments of the project. At the same time, the different documents from different sources, especially from the financial data should be cross checked.		
Purpose of data:	To check completeness of SDG.		
Additional comments:	-		

### D.3. Implementation of sampling plan

>> (If data and parameters monitored described in section D.2 above are determined by a sampling approach, provide a description on how project participants implemented the sampling plan and surveys for those data and parameters according to the approved PDD.)

Not applicable

## SECTION E. Calculation of SDG outcomes

### E.1. Calculation of baseline value or estimation of baseline situation of each SDG outcome

>> (Provide details of equations and approaches used to calculate/estimate baseline values.)

#### The outcome of SDG -13:

The baseline emissions in year y is calculated as

$$BE_y = EG_{\text{facility},y} * EF_{\text{grid},CM}$$

The detailed calculation of  $EG_{\text{facility},y}$  is calculated below:  $EG_{\text{facility},y} = EG_{\text{export}} - EG_{\text{import}}$

Period	$EG_{\text{facility},y}$ (MWh)	$EF_{\text{grid},CM,y}$ (tCO <sub>2e</sub> /MWh)	$BE_y$ (tCO <sub>2e</sub> )
08/04/2017-31/12/2017	306,489	0.9007	276,054
01/01/2018-30/09/2018	379,816	0.9007	342,099
Total from 08/04/2017 to 30/09/2018	686,304	0.9007	618,153

The detailed calculation of  $EG_{\text{facility},y}$  is calculated below:  $EG_{\text{facility},y} = EG_{\text{export}} - EG_{\text{import}}$

Period	$EG_{\text{export}}$ (MWh)	$EG_{\text{import}}$ (MWh)	$EG_{\text{facility},y}$
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# Gold Standard®

	Monthly Reports	ETN	Data for Calculation	Monthly Reports	ETN	Data for Calculation	-
	A	B	C=min(A,B)	D	E	F=max(D,E)	G=C-F
08/04/2017 - 30/04/2017 <sup>3</sup>	32922.619	32922.619	32922.618 6	44.00	44.00	44.00	32,878.62
01/05/2017- 31/05/2017	37951.696	37951.696	37951.696	68.64	68.64	68.64	37,883.06
01/06/2017 - 30/06/2017	19612.875	19612.875	19612.875	149.60	149.60	149.60	19,463.28
01/07/2017- 31/07/2017	17835.582	17835.582	17835.582	119.68	119.68	119.68	17,715.90
01/08/2017 -31/08/2017	31645.809	31645.809	31645.809	79.20	79.20	79.20	31,566.61
01/09/2017 - 30/09/2017	27611.42	27611.42	27611.42	86.24	86.24	86.24	27,525.18
01/10/2017- 31/10/2017	24821.333	24821.333	24821.333	110.88	110.88	110.88	24,710.45
01/11/2017- 30/11/2017	58089.854	58089.854	58089.854	47.52	47.52	47.52	58,042.33
01/12/2017- 31/12/2017	56778.839	56778.839	56778.839	75.68	75.68	75.68	56,703.16
Total in year 2017	307270.027	307270.027	307270.027	781.44	781.44	781.44	306,488.59
01/01/2018 -31/01/2018	44,266.170	44,266.170	44,266.170	128.48	128.48	128.48	44,137.69
01/02/2018 - 28/02/2018	50,295.076	50,295.076	50,295.076	35.20	35.20	35.20	50,259.88
01/03/2018 -31/03/2018	42,787.141	42,787.141	42,787.141	73.92	73.92	73.92	42,713.22
01/04/2018 - 30/04/2018	48,607.515	48,607.515	48,607.515	73.92	73.92	73.92	48,533.60
01/05/2018 - 31/05/2018	37,225.364	37,225.364	37,225.364	73.92	73.92	73.92	37,151.44
01/06/2018 - 30/06/2018	43,953.866	43,953.866	43,953.866	35.20	35.20	35.20	43,918.67
01/07/2018 -31/07/2018	46,415.790	46,415.790	46,415.790	127.60	127.60	127.60	46,288.19

<sup>3</sup> The power supplied to the grid in April of 2017 is calculated as below: the full power delivered in April \* (30-7)/30.

01/08/2018 - 31/08/2018	30,044.741	30,044.741	30,044.741	348.48	348.48	348.48	29,696.26
01/09/2018 - 30/09/2018	37,251.256	37,251.256	37,251.256	134.64	134.64	134.64	37,116.62
From 01/01/2018 to 30/09/2018	380846.91 9	380846.91 9	380846.91 9	1,031.36	1,031.36	1,031.36	379,815.56
Total in this monitoring period	688,117	688,117	688,117	1,813	11,813	1813	686,304.686,304

### The outcome of SDG -8

Without the project activity, at least 39 jobs can not be supplied and these workers can not be well trained.

### The outcome of SDG-7

Without the project activity, the clean energy supplied the project will be replaced by grid power which is dementedly by fossil fuels. There is no clean power supplied.

### E.2. Calculation of project value or estimation of project situation of each SDG outcome

>> (Provide details of equations and approaches used to calculate/estimate project values.)

SDG-13:

According to the applied methodology and the registered PDD, as a newly built wind project, the project emissions of this project are zero.

SDG-8:

39 decent jobs were provided in year 2017 as well as 40 decent jobs were provided. .

SDG-7:

686,304 MWh clean electricity power was supplied by the project activity.

### E.3. Calculation of net benefits as difference of baseline and project values or direct calculation for each SDG outcome

>>

SDG-13: outcome

Period	Baseline emission BE <sub>y</sub> (tCO <sub>2e</sub> )	Project emissions PE <sub>y</sub> (tCO <sub>2e</sub> )	Project Leakage LE <sub>y</sub> (tCO <sub>2e</sub> )	Emission Reduction ER <sub>y</sub> (tCO <sub>2e</sub> )
From 08/04/2017 to 31/12/2017	276,054	0	0	276,054
From 01/01/2018 to 30/09/2018	342,099	0	0	342,099
Total	618,153	0	0	618,153

SDG-8 Outcome

Period	Baseline Decent jobs BE <sub>y</sub>	Project( Decent jobs) PE <sub>y</sub>	Net Outcome (decent Jobs)
From 08/04/2017 to 31/12/2017	0	39	39
From 01/01/2018 to 30/09/2018	0	40	40
Total	0	40	40

## SDG-7 Outcome

Period	Baseline clean power supply MWh) BE <sub>y</sub>	Project(clean power supply MWh_) PE <sub>y</sub>	Net Outcome (clean power supply MWh)
From 08/04/2017 to 31/12/2017	0	306,489	306,489
From 01/01/2018 to 30/09/2018	0	379,816	379,816
Total	0	686,304	686,304

## E.4. Summary of ex-post values of each SDG outcome for the current monitoring period

Item	Baseline estimate	Project estimate	Net benefit
SDG -7	0 MWh clean power supplied	686,304 MWh clean power supplied	686,304 MWh clean power supplied
SDG -8	0 jobs supplied	39 jobs supplied	39 jobs supplied in 2017 as well as 40 jobs in 2018
SDG -13	0	618,153tCO <sub>2</sub> emission reductions	618,153

## E.5. Comparison of actual value of outcomes with estimates in approved PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
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SDG -7	650,015 MWh clean power supplied <sup>4</sup>	686,304 MWh clean power supplied
SDG -8	40 jobs supplied	39 jobs supplied in 2017 as well as 40 jobs in 2018
SDG -13	607,111 <sup>5</sup>	618,153

## E.6. Remarks on difference from estimated value in approved PDD

>>

The clean energy supplied achieved during the monitoring period is 1.82 % more than estimated in the registered PDD

The decent jobs supplied achieved during the monitoring period is 2.5 % less than estimated in the registered PDD

The emission reductions achieved during the monitoring period is 1.82 % higher than estimated in the registered PDD.

## SECTION F. Stakeholder inputs and legal disputes

### F.1. List all inputs/grievances which have been received for the project during the monitoring period together with their respective answers/actions

>> There is no further input or grievance received during this **monitoring** period.

### F.2. List all inputs/grievances from previous monitoring period where follow up action is to be verified in this monitoring period

>> There is no further input or grievance for which is the follow up action from previous monitoring period.

### F.3. Provide details of any legal contest or dispute that has arisen with the project during the monitoring period

>> There is no any legal contest or dispute that has arisen with the project during the morning period.

<sup>4</sup> The annual CERs estimated in the registered PDD is 438,550MWh, this monitoring period includes 541 days. So the estimated GS-CERs is  $438,550 \times 541 / 365 = 650,015$  MWh.

<sup>5</sup> The annual CERs estimated in the registered PDD is 395,001tCO<sub>2</sub>e, this monitoring period includes 541 days. So the estimated GS-CERs is  $395,001 \times 541 / 365 = 607,111$  tCO<sub>2</sub>e.