



# HEBEI GUYUAN COUNTY DONGXINYING 199.5 MW WIND POWER PROJECT

Document Prepared by Demeter Venture Uk Limited

|                          |                                                                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project Title</b>     | Hebei Guyuan County Dongxinying 199.5 MW Wind Power Project                                                                                                      |
| <b>Version</b>           | 2.0                                                                                                                                                              |
| <b>Report ID</b>         | NA                                                                                                                                                               |
| <b>Date of Issue</b>     | 31/08/2023                                                                                                                                                       |
| <b>Project ID</b>        | VCS 903                                                                                                                                                          |
| <b>Monitoring Period</b> | 01/06/2022 to 31/05/2023                                                                                                                                         |
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# 1 PROJECT DETAILS

## 1.1 Summary Description of the Implementation Status of the Project

Hebei Guyuan County Dongxinying 199.5MW Wind Power Project (hereafter referred as “the project”) is a Greenfield grid-connected wind power project. The project is invested, constructed and operated by Hebei Construction Investment New Energy Co., Ltd.

The project will help reduce greenhouse gas (GHG) emissions generated from the high-growth, coal-dominated power generation in North China Power Grid (hereinafter referred to as NCPG). When the proposed project is operated, the electricity generated by the proposed project will displace part of the electricity from the NCPG, and thus greenhouse gas (GHG) generated by coal-fired power plants could be reduced.

The project is a newly constructed wind farm. The total capacity of the project is 199.5 MW and a total of 133 wind turbines with 1,500kW per-unit capacities were installed. The expected annual electricity supplied to the NCPG is 405,685MWh. The estimated annual GHG emission reductions are 335,460tCO<sub>2</sub>e/yr during the second crediting period (from 25/05/2020 to 24/05/2030).

Some important dates for the project are as follows:

- The date to start construction: 25/08/2008;
- The date of first wind turbine started operation: 25/05/2010;
- The date of all wind turbines put into full operation: 06/10/2010.

The second crediting period is from 25/05/2020 to 24/05/2030. This monitoring period is from 01/06/2022 to 31/05/2023 (365 days), belongs to the second crediting period.

During the monitoring period from 01/06/2022 to 31/05/2023 (365 days), the project has supplied electricity of 427,704.500 MWh and achieved 353,662 tCO<sub>2</sub>e emission reductions by replacing electricity generated by fossil fuel fired power plants connected to NCPG.

| Audit Type                            | Period                | Program | VVB Name                                               | Number of years      |
|---------------------------------------|-----------------------|---------|--------------------------------------------------------|----------------------|
| Validation                            | 15/09/2011            | CDM     | TÜV Rheinland Japan Ltd.                               | /                    |
| Validation (Crediting Period Renewal) | 14/09/2021            | VCS     | LGA Technological Center, S.A. (Applus+ Certification) | /                    |
| 1 <sup>st</sup> Verification          | 25/05/2010-14/09/2011 | VCS     | Bureau Veritas Certification Holding SAS               | 1.31 (i.e. 478 days) |

|                              |                          |            |                                                           |                         |
|------------------------------|--------------------------|------------|-----------------------------------------------------------|-------------------------|
| 2 <sup>nd</sup> Verification | 15/09/2011-09/01/2012    | CDM        | Bureau Veritas Certification Holding SAS                  | 0.32 (i.e. 117 days)    |
| 3 <sup>rd</sup> Verification | 10/01/2012-03/10/2012    | CDM        | DNV CLIMATE CHANGE SERVICES AS                            | 0.73 (i.e. 268 days)    |
| 4 <sup>th</sup> Verification | 04/10/2012-31/12/2012    | CDM        | Awaiting issuance request                                 | 0.24 (i.e. 89 days)     |
| 5 <sup>th</sup> Verification | 01/01/2013-30/09/2015    | CDM        | China Classification Society Certification Company (CCSC) | 2.75 (i.e. 1,003 days)  |
| 6 <sup>th</sup> Verification | 01/10/2015-29/02/2020    | VCS        | LGAI Technological Center, S.A. (Applus+ Certification)   | 4.42 (i.e. 1,613 days)  |
| 7 <sup>th</sup> Verification | 01/03/2020 - 30/11/2021  | VCS        | CTI Certification Co., Ltd.                               | 1.75 (i.e. 640 days)    |
| 8 <sup>th</sup> Verification | 01/12/2021 - 31/05/2022  | VCS        | LGAI Technological Center, S.A. (Applus+ Certification)   | 0.50 (i.e. 182 days)    |
| 9 <sup>th</sup> Verification | 01/12/2021 - 31/05/2022  | VCS        | CTI Certification Co., Ltd.                               | 1.00 (i.e. 365 days)    |
| Total                        | 15/09/2011 to 31/05/2022 | CDM<br>VCS | -                                                         | 13.03 (i.e. 4,755 days) |

## 1.2 Sectoral Scope and Project Type

This category would fall within sectoral scope 1: energy industries (Renewable sources).

Project type: wind power project.

This project is not grouped project.

## 1.3 Project Proponent

|                   |                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------|
| Organization name | Hebei Construction Investment New Energy Co., Ltd.                                                             |
| Contact person    | Zhang Ling                                                                                                     |
| Title             | Manager                                                                                                        |
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| Email             | zhangling@jtgr.cc                                                                                              |

## 1.4 Other Entities Involved in the Project

|                     |                                                                               |
|---------------------|-------------------------------------------------------------------------------|
| Organization name   | Demeter Venture Uk Limited                                                    |
| Role in the Project | Project participant                                                           |
| Contact person      | Teng Haipeng                                                                  |
| Title               | Manager                                                                       |
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| Telephone           | +86 13501283595                                                               |
| Email               | teng_hp@demeterventureuk.com                                                  |

## 1.5 Project Start Date

25/05/2010 (operation date, which means the date that started to generate GHG emission reductions).

## 1.6 Project Crediting Period

As per the renewed VCS PD, the first crediting period is from 25/05/2010 to 24/05/2020, while the second crediting period is from 25/05/2020 to 24/05/2030.

As per VCS scheme under which the project was registered, the project crediting period is allowable for 10 years and could be renewed twice. Considering 3\*7 years CDM crediting period, it is reasonable that the total VCS crediting period was determined from 25/05/2010 to 24/05/2031, of which the first VCS crediting period is from 25/05/2010 to 24/05/2020 and the second VCS crediting period is from 25/05/2020 to 24/05/2030.

This monitoring period is from 01/06/2022 to 31/05/2023 (365 days), belongs to the second crediting period.

## 1.7 Project Location

The project site is located in the south of Guyuan County, Zhangjiakou City of Hebei Province. It is about 20 km from Guyuan County. The exact geographical coordinates of the project are 115.2997° ~ 115.7508° E, 41.3169° ~ 41.5661° N. Figure 1 shows the location of the project:

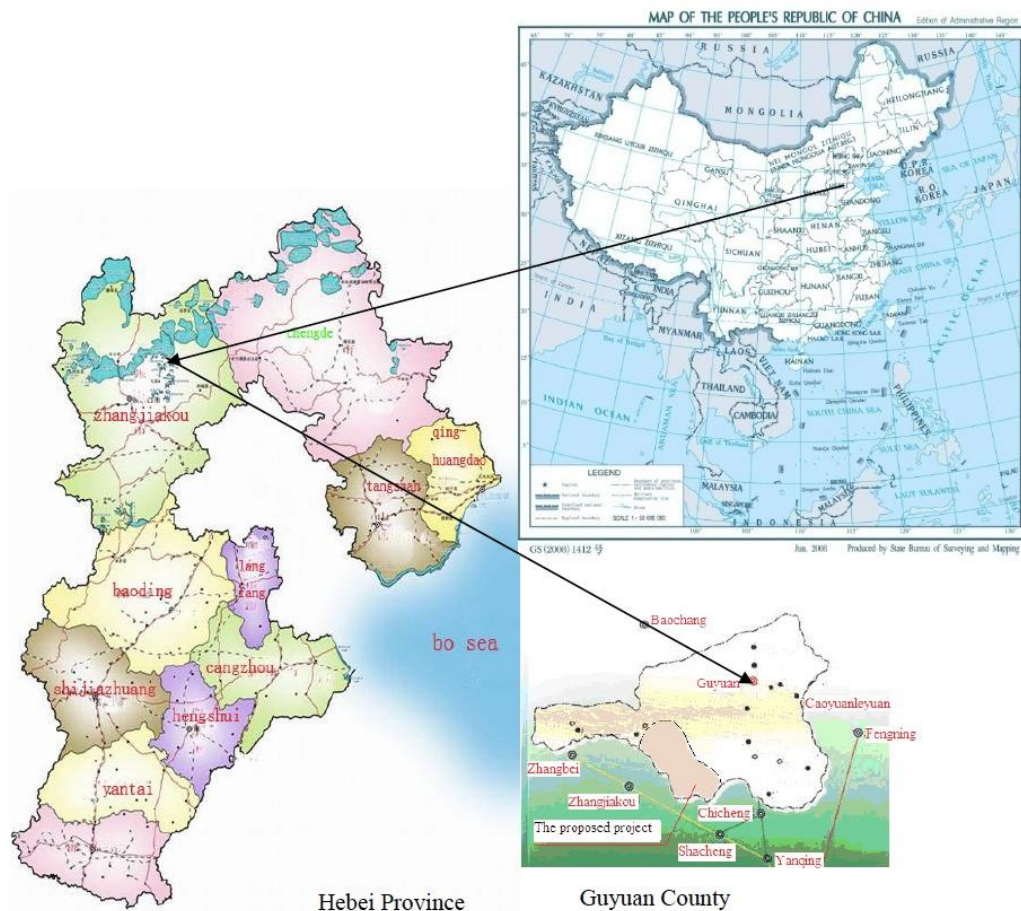


Figure 1. The location of the project

## 1.8 Title and Reference of Methodology

The approved methodology applied in the project activity is ACM0002 – Consolidated methodology for grid-connected electricity generation from renewable sources” (version 20.0) <sup>1</sup>.

Related tools are:

- Tool to calculate the emission factor for an electricity system (version 07.0)
- Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation (version 03.0).

## 1.9 Participation under other GHG Programs

The Project has been registered as a CDM project on 15/09/2011 with registration number of 4853. It has been issued three times under CDM mechanism, covering monitoring period of 15/09/2011-09/01/2012, 10/01/2012-03/10/2012 and 01/01/2013-30/09/2015. Since

<sup>1</sup> <https://cdm.unfccc.int/methodologies/DB/XP2LKUSA61DKUQC0PIWPGWDN8ED5PG>

no monitoring period gap was allowed under CDM scheme, a MR for the period from 04/10/2012 to 31/12/2012 was uploaded in EB website only for the purpose of preventing the gap.

The credits in this monitoring period (01/06/2022- 31/05/2023) has not been counted and will not be counted under other kind of GHG programs.

Please refer to the following link for details:

<https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1306303373.74/view>

Except for CDM, the project did not register under any other GHG program.

## 1.10 Other Forms of Credit and Supply Chain (Scope 3) Emissions

### Emission Trading Programs and Other Binding Limits:

China has a national Emission Trading Scheme (ETS) only cover the high-emission industries, such as thermal power generation, petrochemical, chemical, building materials, iron and steel, non-ferrous, paper, aviation and other key emission industries that emitted at least 26,000 tons of CO<sub>2</sub>e/year, not including renewable project<sup>2</sup>. The project proponent Hebei Construction Investment New Energy Co., Ltd., as an enterprise for renewable energy investment, thus, the project activity is not included the mandatory emission control scheme and there is no emission cap enforced for the project owner according to the enforced company list<sup>3</sup> in public information. Hence, it is confirmed that the emission reductions will not be double counted.

The project does not reduce GHG emissions from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading.

### Other Forms of Environmental Credit:

The project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates.

### Supply Chain (Scope 3) Emissions:

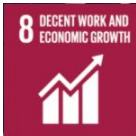
The Project generated electricity by utilization of renewable wind sources, replacing the electricity generated by fossil fuel fired power plants of the power grid. For wind power projects, the GHG emission reductions come from avoiding CO<sub>2</sub> emissions from those fossil fuel-based power plants connected to the grid, which does not happen in a supply chain. Therefore, it is confirmed that the Supply Chain (Scope 3) Emissions are not applicable for the project activity.

<sup>2</sup> [http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202103/t20210330\\_826728.html](http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202103/t20210330_826728.html)

<sup>3</sup> <http://mee.gov.cn/xxgk2018/xxgk/xxgk03/202012/W020201230736907682380.pdf>

## 1.11 Sustainable Development Contributions

The project located in the south of Guyuan County, Zhangjiakou City of Hebei Province, P.R.China, generated electricity from clean renewable wind sources and feeds it into NCPG, replacing energy that would otherwise be generated by fossil fuels. In this monitoring period the project contributes to the following SDGs:

| SDG                                                                                 | SDG indicators                                                                                                                                                                                        | Chinese Sustainable Development Progress                                                                                                                                                                                                                                                                                                                                                                                                                                           | Project activity contribution                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>SDG 7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix                                                                                                 | By the end of 2015, China had fully solved the problem of providing electricity to all people without electricity and reached the goal of the Sustainable Development Agenda 15 years ahead of schedule. From 2015 to 2020, the share of non-fossil energy increased from 14.5% to 19.6%, while the share of raw coal decreased from 72.2% to 67.6%.                                                                                                                               | From the operation start date of the project to 31/05/2023, the project supplied 5,254,865.060 MWh renewable clean energy to NCPG, which contributes to achieve China's stated sustainable development priorities "By 2030, the proportion of non-fossil energy consumption will reach about 25%".                                                                                                                          |
|  | <b>SDG 8.5</b> By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value | China has deeply implemented the innovation-driven development strategy. Small, medium and micro enterprises have developed rapidly. Adhering to the policy of giving priority to employment, the unemployment rate has remained at a low level. By coordinating epidemic prevention and control with economic and social development, China has become the only major economy to achieve positive growth in 2020 and has made positive contributions to global economic recovery. | The project provides 55 long-term job opportunities for local people, which has a positive effect on the local economy and contributes to SDG 8. This contributes to one of China's actions for promoting sustainable developing: "by 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value". |

|                                                                                   |                                                                           |                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>SDG 13</b> Take urgent action to combat climate change and its impacts | <p>In 2020, China's energy consumption per unit of GDP was reduced by 24.4% compared with 2012; carbon dioxide emissions per unit of GDP was reduced by 18.8% compared with 2015 and 48.4% compared with 2005, all of which have already fulfilled China's commitment to the international community in 2020 ahead of schedule.</p> | <p>From the operation start date of the project to 31/05/2023, the project achieved 5,247,116 tCO<sub>2</sub>e emission reductions which contributes to SDG 13. This contributes to achieve China's stated sustainable development priorities " China's carbon dioxide emissions would strive to peak by 2030 and strive to achieve carbon neutrality by 2060 ".</p> |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

These contribute to achieve China's stated sustainable development priorities, included strengthening resistance capacity to climate risks, increasing labour force participation rate, increasing the share of clean energy consumption.

Table 1: Sustainable Development Contributions

| Row number | SDG Target | SDG Indicator                                          | Net Impact on SDG Indicator        | Current Project Contributions                                                                                                                                                                                                                    | Contributions Over Project Lifetime                                                                                                                                                                                                                          |
|------------|------------|--------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1)         | 7.2        | 7.2.1 Renewable energy share in the total final energy | Implemented activities to increase | The project utilizes wind energy for electricity generation, which could increase the ratio of renewable energy in total energy consumption of China. From 01/06/2022 to 31/05/2023 the electricity supplied from the project is 427,704.500MWh. | From the operation start date of the project to 31/05/2023, the verified electricity generated by this project is 5,254,865.060 MWh.                                                                                                                         |
| 2)         | 8.5        | Total number of job opportunities                      | Implemented activities to decrease | During the current monitoring period, the total number of employees is 55(including 20 females), 15 of whom are residents of the villages surrounding the project. And local employees account for about 27.27% of the total staff.              | During the operation time, the project provides about 55 stable work opportunities to local people, including 20 females, 15 of whom are residents of the villages surrounding the project. And local employees account for about 27.27% of the total staff. |
| 3)         | 13.0       | Tonnes of greenhouse gas emissions avoided or removed  | Implemented activities to increase | By utilizing wind for power generation and replaced it from thermal power generation projects from 01/06/2022 to 31/05/2023 the emission reduction from the project is around 353,662tCO <sub>2</sub> e                                          | The credits from the operation start date of the project to 31/05/2023, the verified emission reduction generated by this project is 5,247,116tCO <sub>2</sub> e (refer to table below for further details).                                                 |

The electricity and emission reduction that has been verified during the previous monitoring period are as follows:

| Monitoring period       | EGy(MWh)             | Emission Reductions (tCO <sub>2</sub> e) | Status             |
|-------------------------|----------------------|------------------------------------------|--------------------|
| 25/05/2010 - 14/09/2011 | 493,191.505          | 520,242                                  | Issued             |
| 15/09/2011 - 09/01/2012 | 108,443.775          | 114,391                                  | Issued             |
| 10/01/2012 - 03/10/2012 | 295,712.244          | 311,932                                  | Issued             |
| 04/10/2012 - 31/12/2012 | 103,442.000          | 109,115                                  | Issued             |
| 01/01/2013 - 30/09/2015 | 937,378.000          | 988,793                                  | Issued             |
| 01/10/2015 - 29/02/2020 | 1,916,408.837        | 2,021,522                                | Issued             |
| 01/03/2020 - 30/11/2021 | 759,116.945          | 650,945                                  | Issued             |
| 01/12/2021 - 31/05/2022 | 213,467.254          | 176,514                                  | Issued             |
| 01/06/2022 - 31/05/2023 | 427,704.500          | 353,662                                  | In requesting VCUs |
| <b>Total</b>            | <b>5,254,865.060</b> | <b>5,247,116</b>                         |                    |

## 2 SAFEGUARDS

### 2.1 No Net Harm

The Environmental Impact Assessment of the proposed project was completed by Hebei Institute of Geographical Sciences and approved by the Environment Protection Bureau of Hebei Province on 19/11/2007. Main contents of the Environmental Impact Assessment are summarized as follows:

#### Ecological impact

##### Construction Phase

##### 1) Impact on Foliage

The area of the buildings stated above will be all the shrub-grassland. There will be some impacts on the local vegetation during the construction period. The main impact will be eradication of local sward and the stack of earth on the lawn. But after the construction period, new trees and grass will be planted again on the site. The vegetation condition of the earth surface will recover very soon.

##### 2) Impact on other animals

No big mammal has been found in the local area. There are only small mammals just like hare and mice.

The small animals disturbed by the construction (like the snail, the angleworm, the ant) will migrate the similar habitat conditions nearby due to their strong ability of migration. So, the species diversity and population size in the area will not be obviously influenced by the proposed project during the construction phase.

### **3) Impact on the residents**

The main air pollution sources during the construction period include dust from excavation, blasting and transportation. Some measures will be taken to reduce impact of dust, such as watering, covering and so on. In addition, the construction area is open and wide, which aids the diffusion of pollutants. Therefore, the construction will not cause much negative impact on the local air environment.

Noise will be generated by machine equipment during construction. Measures will be taken to reduce the environmental impacts of noise: choosing low-noise machines and technologies, arranging reasonable construction time, and enhancing construction management. In addition, the nearest residential area is far away from the wind farm, the neighbor hood residents will not be influenced by the noise.

So the dust and the noise generated by construction activities will have less impact on local residents.

## **Operation Phase**

### **1) Impact on the local biogeocenose**

There is no waste gas, waste water and solid waste in the process of wind energy. Thus, the project will not obviously affect the local biogeocenose.

### **2) Visual Impact**

The wind turbines installed in the grassland will enhance the visual value of the grassland and demonstrate the harmonious relation between human and nature. So, the proposed project has little impact on the local scene.

### **3) Impact on the animals**

No big mammal has been found in the local area. There are only small mammals just like hare and mice.

They may migrate back to the former sites after the completion of the project. Therefore, the project will have less impact on other propagation during the operation phase.

## **Environmental Impact**

### **Construction phase**

For the dust emission generated during the construction period, treatment measures shall be taken. The measures include spraying water and enhancing construction management to avoid any influence on the ambient environment. Furthermore, the construction period is short and the local atmosphere capacity is large which aids the dust diffusion, the construction will have little influence on the local atmosphere.

The main solid waste generated from the site will be construction waste as well as the household waste from the personnel at the site. The solid waste will be carried to the landfill nearby. And both domestic sewage and the sewage from the worksite will be treated up to the standards before being discharged. So, the waste and waste water generated by construction activities will have less impact on local residents.

### Operation Phase

The operating noise level of the 1500kW turbine ranges from 96dB to 104dB. Since the wind farm is far away from the village, the noise levels will be controlled and naturally attenuated by ambient conditions within the standards set as Standard of Environmental Noise of Urban Area.

The waste water from the proposed project during operation phase will only be sewage. The sewage processed by the biological septic tank will be discharged into the collecting pond. The processed sewage will be utilized to irrigate plant in the project site without discharge. Therefore, the sewage from the project during the operation phase will have less impact on the environment.

The solid waste will be mainly composed of the household garbage generated from the workers in the 220kV booster station. The solid waste will be carried termly to the landfill nearby. Therefore, impact of solid waste on the environment is considered to be insignificant.

### Conclusion

The project does not have any major adverse impacts on the environment during its construction and operation phase. Therefore, this project does not do harm to local environment.

## 2.2 Local Stakeholder Consultation

The project owner invited the comments of local stakeholders by issuing questionnaires. Hebei Construction Investment New Energy Co., Ltd carried out the survey on the local villagers and residents, the governmental officials and so on from January 2008. The survey was conducted through distributing and collecting responses to a questionnaire which was designed by project owner.

The questions include:

|                                                    |                |
|----------------------------------------------------|----------------|
| What level do you know about the proposed project? | Know very well |
|                                                    | Know a little  |
|                                                    | Never heard    |
| Do you know about the Clean Development            | know           |

|                                                                            |                                           |
|----------------------------------------------------------------------------|-------------------------------------------|
| Mechanism?                                                                 | Don not know                              |
| Do you think which impact on the environment may be caused by the project? | Noise caused by construction              |
|                                                                            | Waste water caused by construction        |
|                                                                            | Noise caused by turbine operation         |
|                                                                            | Impact of dust on air quality             |
|                                                                            | Use of land                               |
|                                                                            | Soil and water conservation               |
|                                                                            | Construction waste                        |
|                                                                            | Impact on traffic                         |
|                                                                            | Impact on the surrounding eco-environment |
|                                                                            | The interference on TV and others         |
| Impacts of the project to local environment                                | Positive effect                           |
|                                                                            | Negative effect                           |
|                                                                            | No effect                                 |
| Impacts of the project to local economic development?                      | Beneficial                                |
|                                                                            | Adverse                                   |
|                                                                            | No change                                 |
| Whether to support the construction of the project?                        | Support                                   |
|                                                                            | Non support                               |

Questionnaires have been distributed according to the principle of both representation and randomness in order to reflect the public opinions and comments in a fair and real manner.

The investigated stakeholders include the individuals from the construction site and the nearby Guyuan County. The stakeholders also include the group from the government and association. The investigation has taken full account into the public advice of different ages, education levels and occupations.

In addition, public comments were invited by a poster on 12/02/2008 in all the villages within a radius of five-kilometre from the proposed project, which include Dongxinying Village, Lianhuatan Village, Taiping Village. Besides the content mentioned above, the following question was added in the Notice.

- What other comments and suggestions do the respondents have for the company regarding the Project?
- What impacts on your life may be caused by the project?

81 valid responses from 82 questionnaires were collected and the following is a summary of the survey :

Comments from the questionnaires show that 100% of the investigated stakeholders agree with the project construction, and none of them objects.

18.52% of the investigated stakeholders know something about the project while 75.31% of the investigated stakeholders know very well about the project and the others never heard it; 90.12% of them know about CDM; 87.65% of them don't think it impacting their livelihoods environment while 2.47% of them think it takes little impact of the local environment and the others think it has no impact; The fields of environmental protection the public concerned mainly include noise of the construction(6.17%) , waste water caused by construction (7.41%), noise of the operation (17.28%), construction waste (17.28%), impact of dust on air quality (1.23%), use of land (55.56%), soil and water conservation(12.35%), impact on traffic(4.94%); impact on the surrounding eco-environment (8.64%), the interference on TV and others(4.94%); 98.77% of them think it will promote the local economy. And the stakeholders are all supportive of this project.

No comments of the villagers who had seen the Notice have been received from 12/02/2008 to 12/03/2008.

In conclusion, the stakeholders are all supportive of this project.

In addition to the physical stakeholder consultations, for continuous communication with local stakeholders, the project owner public its office telephone to local people and put a grievance book in the office of the company. Anyone who have comments on the project could write on the book or leave message by phone. And after these years' operation, no negative comments and grievance were received from local people.

### 2.3 AFOLU-Specific Safeguards

Not applicable due to the project is not an AFOLU project.

## 3 IMPLEMENTATION STATUS

### 3.1 Implementation Status of the Project Activity

The project is a Greenfield grid-connected wind power project. The total installed capacity of the project is 199.5MW equipped with 133 sets of wind turbines with a unit installed capacity of 1.5MW.

Construction of the project was started on 25/08/2008. The date of first wind turbine started operation was 25/05/2010. And the date of all wind turbine started full operation was 06/10/2010.

The project applies WTG-box transformer unit to boost voltage of the generated electricity from 690V to 35kV. Then the electricity will be transmitted to the main transformers via 35kV collection lines. After boosted its voltage to 220kV by the main transformers, the electricity will be transmitted to Xiaochang Substation and exported to NCPG.

Major technical parameters of the key equipments employed by the project are illustrated in the following table.

Table 1. Main technical parameters of key equipment in the Project

| Parameter          | Unit | Value                         |
|--------------------|------|-------------------------------|
| Type of turbine    | /    | FD77B                         |
| Type of generator  | /    | double-fed asynchronous motor |
| Nominal output     | kW   | 1500                          |
| Rotor Diameter     | m    | 77                            |
| Hub height         | m    | 61.5                          |
| Rated Voltage      | V    | 690                           |
| Cut-in wind speed  | m/s  | 3.0                           |
| Nominal wind speed | m/s  | 12                            |

During this monitoring period (01/06/2022-31/05/2023), the project operated normally. No equipment is overhauled or replaced in this monitoring period. No emergencies which may impact the methodology application and monitoring occurred during the monitoring period.

## 3.2 Deviations

### 3.2.1 Methodology Deviations

No methodology deviations in this monitoring period.

### 3.2.2 Project Description Deviations

There is a crediting period deviation in this monitoring period.

The project was registered under VCS version 3. In the Verification Report of initial VCS monitoring period, it was mentioned that the project started operation since 25/05/2010. As per UNFCCC website, it was confirmed that the project activity was registered as CDM project activity on 15/09/2011. Therefore, the VCS crediting period was determined as 25/05/2010 to 14/09/2011. As per VCS scheme under which the project was registered, the project crediting period is allowable for 10 years and could be renewed twice. Therefore, the total VCS crediting period was determined from 25/05/2010 to 13/09/2032, of which the first crediting period is from 25/05/2010 to 24/05/2020, while the second crediting period is from 25/05/2020 to 24/05/2030. The same has been described in the renewed VCS PD.

As a CDM project with a 7\*3 renewable project crediting period, the VCS issuance is not eligible for beyond the end of those 21 years. Furthermore, given that the VCS crediting period started on 25/05/2010 and the lifetime of the project is about 20 years, thus, the VCS crediting period will end on the 24/05/2030.

There are no project description deviations applied during this monitoring period.

### 3.3 Grouped Projects

The Project is not a grouped project.

## 4 DATA AND PARAMETERS

### 4.1 Data and Parameters Available at Validation

|                                                                                              |                                                                                                     |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Data / Parameter                                                                             | <b>EF<sub>grid,OM,y</sub></b>                                                                       |
| Data unit                                                                                    | tCO <sub>2</sub> /MWh                                                                               |
| Description                                                                                  | Simple operating margin CO <sub>2</sub> emission factor in year y                                   |
| Source of data                                                                               | "2019 Baseline Emission Factors for Regional Power Grids in China" issued by China DNA <sup>4</sup> |
| Value applied                                                                                | 0.9419                                                                                              |
| Justification of choice of data or description of measurement methods and procedures applied | Official public data from MEE                                                                       |
| Purpose of Data                                                                              | Calculation of baseline emissions                                                                   |
| Comments                                                                                     | /                                                                                                   |

|                                                                                              |                                                                                                     |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Data / Parameter                                                                             | <b>EF<sub>grid,BM,y</sub></b>                                                                       |
| Data unit                                                                                    | tCO <sub>2</sub> /MWh                                                                               |
| Description                                                                                  | Build margin CO <sub>2</sub> emission factor in year y                                              |
| Source of data                                                                               | "2019 Baseline Emission Factors for Regional Power Grids in China" issued by China DNA <sup>5</sup> |
| Value applied                                                                                | 0.4819                                                                                              |
| Justification of choice of data or description of measurement methods and procedures applied | Official public data from MEE                                                                       |

<sup>4</sup> <http://www.mee.gov.cn/ywgz/ydqhbh/wsqtz/202012/W020201229610353816665.pdf>

<sup>5</sup> <http://www.mee.gov.cn/ywgz/ydqhbh/wsqtz/202012/W020201229610354442145.pdf>

|                 |                                   |
|-----------------|-----------------------------------|
| Purpose of Data | Calculation of baseline emissions |
| Comments        | /                                 |

|                                                                                              |                                                                                                               |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Data / Parameter                                                                             | <b>Wom</b>                                                                                                    |
| Data unit                                                                                    | %                                                                                                             |
| Description                                                                                  | Weighting of operating margin emissions factor                                                                |
| Source of data                                                                               | "Tool to calculate the emission factor for an electricity system" (Version 07.0)                              |
| Value applied                                                                                | 75                                                                                                            |
| Justification of choice of data or description of measurement methods and procedures applied | Based on the requirements of "Tool to calculate the emission factor for an electricity system" (Version 07.0) |
| Purpose of Data                                                                              | Calculation of baseline emissions                                                                             |
| Comments                                                                                     | /                                                                                                             |

|                                                                                              |                                                                                                               |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Data / Parameter                                                                             | <b>WBM</b>                                                                                                    |
| Data unit                                                                                    | %                                                                                                             |
| Description                                                                                  | Weighting of build margin emissions factor                                                                    |
| Source of data                                                                               | "Tool to calculate the emission factor for an electricity system" (Version 07.0)                              |
| Value applied                                                                                | 25                                                                                                            |
| Justification of choice of data or description of measurement methods and procedures applied | Based on the requirements of "Tool to calculate the emission factor for an electricity system" (Version 07.0) |
| Purpose of Data                                                                              | Calculation of baseline emissions                                                                             |
| Comments                                                                                     | /                                                                                                             |

## 4.2 Data and Parameters Monitored

|                  |                                |
|------------------|--------------------------------|
| Data / Parameter | <b>EG<sub>facility,y</sub></b> |
| Data unit        | MWh/yr                         |

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------|
| Description                                                     | Quantity of net electricity generation supplied by the project plant/unit to the grid in year y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Source of data                                                  | Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Description of measurement methods and procedures to be applied | <p>Calculation by <math>EG_{\text{export},y}</math> , <math>EG_{\text{import},y}</math> and <math>EG_{\text{backupline},y}</math> and cross-check with electricity receipts.</p> <p><math>EG_{\text{facility},y} = EG_{\text{export},y} - EG_{\text{import},y} - EG_{\text{backupline},y}</math></p> <table border="1"> <tr> <td><math>EG_{\text{export},y}</math></td><td>Quantity of electricity exported to the grid by the project through the main power line</td></tr> <tr> <td><math>EG_{\text{import},y}</math></td><td>Quantity of electricity imported from the grid by the project through the main power line</td></tr> <tr> <td><math>EG_{\text{backupline},y}</math></td><td>Quantity of electricity delivered to the project through the backup line</td></tr> </table> | $EG_{\text{export},y}$ | Quantity of electricity exported to the grid by the project through the main power line | $EG_{\text{import},y}$ | Quantity of electricity imported from the grid by the project through the main power line | $EG_{\text{backupline},y}$ | Quantity of electricity delivered to the project through the backup line |
| $EG_{\text{export},y}$                                          | Quantity of electricity exported to the grid by the project through the main power line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| $EG_{\text{import},y}$                                          | Quantity of electricity imported from the grid by the project through the main power line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| $EG_{\text{backupline},y}$                                      | Quantity of electricity delivered to the project through the backup line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Frequency of monitoring/recording                               | Continuously measurement and monthly recording                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Value monitored                                                 | 427,704.500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Monitoring equipment                                            | The information of the electricity meter is in the following table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| QA/QC procedures to be applied                                  | The electricity meters are calibrated by qualified entity according to national standards. The electricity records are crosschecked with Electricity Receipts. The conservative value is used for calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Purpose of the data                                             | Calculation of baseline emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Calculation method                                              | $EG_{\text{facility},y} = EG_{\text{export},y} - EG_{\text{import},y} - EG_{\text{backupline},y}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |
| Comments                                                        | /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                                                                         |                        |                                                                                           |                            |                                                                          |

|                                                                 |                                                                                                     |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Data / Parameter                                                | $EG_{\text{export},y}$                                                                              |
| Data unit                                                       | MWh                                                                                                 |
| Description                                                     | Quantity of electricity exported to the grid by the project through the main power line             |
| Source of data                                                  | Measured by electricity meter M1 (or M3, backup meter) and M2 (or M4, backup meter)                 |
| Description of measurement methods and procedures to be applied | It is continuously measured by the bi-directional meters and monthly recorded by the project owner. |

| applied                           | $EG_{\text{export},y} = EG_{\text{export},y,1} + EG_{\text{export},y,2}$ <p>The total value will be crosschecked with Electricity Receipts, and the conservative value will be used for emission reductions. The accuracy of the meters are 0.2S.</p> <p>At 24:00 of the last day of each month, the meter reading were read and recorded by the project owner and grid company.</p>                                                                                                                                                                                                                                                                                                                                                                                                                |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|------------------------------------------------|----------|---------------------------------|----|---------|----------|------|------------------------------------------------|----|---------|----------|------|------------------------------------------------|----|---------|--------------------|------|------------------------------------------------|----|---------|--------------------|------|------------------------------------------------|
| Frequency of monitoring/recording | Continuously measured and monthly recorded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Value monitored                   | 427,996.430                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Monitoring equipment              | The information of the electricity meter is in the following table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| QA/QC procedures to be applied    | <p>The electricity meters are calibrated by qualified entity according to national standards. The main information is shown below:</p> <table><tr><th>Name</th><th>Type</th><th>Serial No.</th><th>Accuracy</th><th>Calibration Date and valid date</th></tr><tr><td>M1</td><td>ACE8000</td><td>37006390</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M2</td><td>ACE8000</td><td>37002994</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M3</td><td>DSSD331</td><td>090801448<br/>40023</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M4</td><td>DSSD331</td><td>0908014484<br/>0005</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr></table> | Name               | Type     | Serial No.                                     | Accuracy | Calibration Date and valid date | M1 | ACE8000 | 37006390 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M2 | ACE8000 | 37002994 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M3 | DSSD331 | 090801448<br>40023 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M4 | DSSD331 | 0908014484<br>0005 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |
| Name                              | Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Serial No.         | Accuracy | Calibration Date and valid date                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M1                                | ACE8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 37006390           | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M2                                | ACE8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 37002994           | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M3                                | DSSD331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 090801448<br>40023 | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M4                                | DSSD331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0908014484<br>0005 | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Purpose of the data               | Calculation of baseline emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Calculation method                | /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Comments                          | /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data / Parameter                                                | $EG_{\text{import},y}$                                                                                                                                                                                                                                                                                                                                                                    |
| Data unit                                                       | MWh                                                                                                                                                                                                                                                                                                                                                                                       |
| Description                                                     | Quantity of electricity imported from the grid by the project through the main power line                                                                                                                                                                                                                                                                                                 |
| Source of data                                                  | Measured by electricity meter M1 (or M3, backup meter) and M2 (or M4, backup meter).                                                                                                                                                                                                                                                                                                      |
| Description of measurement methods and procedures to be applied | $EG_{\text{import},y} = EG_{\text{import},y,1} + EG_{\text{import},y,2}$ <p>It is continuously measured by the bi-directional meter and monthly recorded by the project owner. The total value will be crosschecked with Electricity Receipts, and the conservative value will be used for emission reductions.</p> <p>At 24:00 of the last day of each month, the meter reading were</p> |

|                                   | read and recorded by the project owner and grid company.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|------------------------------------------------|----------|---------------------------------|----|---------|----------|------|------------------------------------------------|----|---------|----------|------|------------------------------------------------|----|---------|--------------------|------|------------------------------------------------|----|---------|--------------------|------|------------------------------------------------|
| Frequency of monitoring/recording | Continuously measured and monthly recorded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Value monitored                   | 291.930                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Monitoring equipment              | The information of the electricity meter is in the following table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| QA/QC procedures to be applied    | <div>The electricity meter is calibrated by qualified entity according to national standards. The main information is shown below:</div> <table><tr><th>Name</th><th>Type</th><th>Serial No.</th><th>Accuracy</th><th>Calibration Date and valid date</th></tr><tr><td>M1</td><td>ACE8000</td><td>37006390</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M2</td><td>ACE8000</td><td>37002994</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M3</td><td>DSSD331</td><td>090801448<br/>40023</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr><tr><td>M4</td><td>DSSD331</td><td>0908014484<br/>0005</td><td>0.2S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr></table> | Name               | Type     | Serial No.                                     | Accuracy | Calibration Date and valid date | M1 | ACE8000 | 37006390 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M2 | ACE8000 | 37002994 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M3 | DSSD331 | 090801448<br>40023 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 | M4 | DSSD331 | 0908014484<br>0005 | 0.2S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |
| Name                              | Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Serial No.         | Accuracy | Calibration Date and valid date                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M1                                | ACE8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 37006390           | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M2                                | ACE8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 37002994           | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M3                                | DSSD331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 090801448<br>40023 | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| M4                                | DSSD331                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0908014484<br>0005 | 0.2S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Purpose of the data               | Calculation of baseline emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Calculation method                | /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |
| Comments                          | /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |          |                                                |          |                                 |    |         |          |      |                                                |    |         |          |      |                                                |    |         |                    |      |                                                |    |         |                    |      |                                                |

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data / Parameter                                                | <b>EG<sub>backupline,y</sub></b>                                                                                                                                                                                                                                                                                                                                                             |
| Data unit                                                       | MWh                                                                                                                                                                                                                                                                                                                                                                                          |
| Description                                                     | Quantity of electricity delivered to the project through the backup line                                                                                                                                                                                                                                                                                                                     |
| Source of data                                                  | Measured by electricity meter (M5)                                                                                                                                                                                                                                                                                                                                                           |
| Description of measurement methods and procedures to be applied | <p>This parameter is continuously measured and monthly recorded by the project owner. The value will be crosschecked with Electricity Receipts, and the conservative value will be used for emission reductions.</p> <p><i>At 24:00 of the last day of each month, the meter reading were read and recorded by the project owner and grid company.</i></p> <p>The accuracy of M5 is 0.5S</p> |
| Frequency of monitoring/recording                               | Continuously measured and monthly recorded                                                                                                                                                                                                                                                                                                                                                   |

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |          |                                                |          |                                    |    |        |                        |      |                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------|------------------------------------------------|----------|------------------------------------|----|--------|------------------------|------|------------------------------------------------|
| Value monitored                | 0                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |          |                                                |          |                                    |    |        |                        |      |                                                |
| Monitoring equipment           | The information of the electricity meter is in the following table.                                                                                                                                                                                                                                                                                                                                                  |                        |          |                                                |          |                                    |    |        |                        |      |                                                |
| QA/QC procedures to be applied | <p>The electricity meter is calibrated by qualified entity according to national standards. The main information is shown below:</p> <table><tr><td>Nam<br/>e</td><td>Type</td><td>Serial No.</td><td>Accuracy</td><td>Calibration Date and valid<br/>date</td></tr><tr><td>M5</td><td>DSSD22</td><td>B24T0P8124<br/>03001807</td><td>0.5S</td><td>17/07/2021-16/07/2022<br/>17/07/2022-16/07/2023</td></tr></table> | Nam<br>e               | Type     | Serial No.                                     | Accuracy | Calibration Date and valid<br>date | M5 | DSSD22 | B24T0P8124<br>03001807 | 0.5S | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |
| Nam<br>e                       | Type                                                                                                                                                                                                                                                                                                                                                                                                                 | Serial No.             | Accuracy | Calibration Date and valid<br>date             |          |                                    |    |        |                        |      |                                                |
| M5                             | DSSD22                                                                                                                                                                                                                                                                                                                                                                                                               | B24T0P8124<br>03001807 | 0.5S     | 17/07/2021-16/07/2022<br>17/07/2022-16/07/2023 |          |                                    |    |        |                        |      |                                                |
| Purpose of the data            | Calculation of baseline emissions                                                                                                                                                                                                                                                                                                                                                                                    |                        |          |                                                |          |                                    |    |        |                        |      |                                                |
| Calculation method             | /                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |          |                                                |          |                                    |    |        |                        |      |                                                |
| Comments                       | /                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |          |                                                |          |                                    |    |        |                        |      |                                                |

### 4.3 Monitoring Plan

#### 1. Monitoring data

The net electricity ( $EG_{\text{facility},y}$ ) supplied to the grid by the project will not be measured directly. It is the difference of the following parameters.

- 1)  $EG_{\text{export},y}$  is the electricity exported to the grid by the project through the main power line;
- 2)  $EG_{\text{import},y}$  is the electricity imported from the grid by the project through the main power line;
- 3)  $EG_{\text{backupline},y}$  is the electricity delivered to the project through the backup line.

#### 2. Project Integrate Management

This monitoring plan has been implemented by Hebei Construction Investment New Energy Co., Ltd., the project owner. The project manager is responsible for the implementation and monitoring of the monitoring activity. There are two departments organized for data report, quality control. There is a manager responsible for data report and quality control department. The manager will take charge of the employment administration, as well as the operation implementation and monitoring; staffs will carry on the concrete assignment based on the guide of their manager

#### 3. Metering System

The electricity generated by the project will be transmitted to on-site transformers which increase the voltage to 220 kV, and then delivered to Xiaochang Substation by 220kV transmission line. The simplified electrical grid connection diagram is shown in the following figure 2:

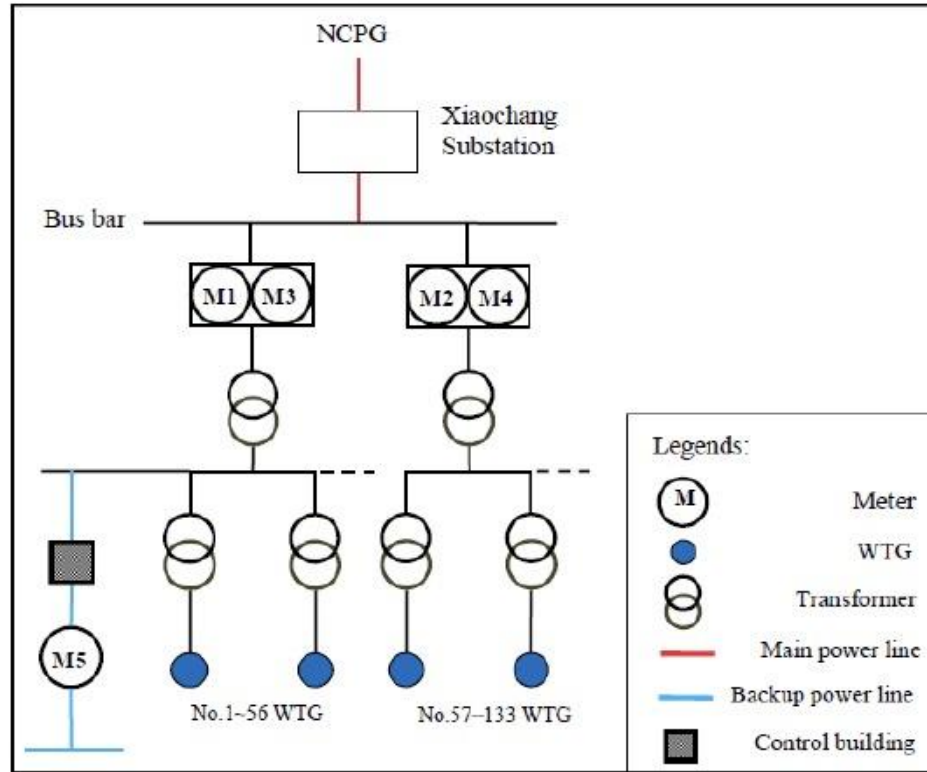


Figure 4. Simplified electrical grid connection diagram

The power line supplying electric power to the grid can also deliver power from the grid to the wind farm.

The metering equipment run in two directions and will record two readings, i.e. electricity exported to the grid ( $EG_{\text{export},y}$ ) and electricity imported from the grid ( $EG_{\text{import},y}$ ). Net electricity supplied to the grid is calculated as exports minus imports.

M1 is installed at high voltage side of No. 1 main transformer; M2 is installed at the high voltage side of No. 2 main transformer. Both M1 and M2 are bi-directional meters. M1 is used for measurement of electricity exported by Group 1 WTGs ( $EG_{\text{export},y,1}$ ) and electricity imported from the grid by Group 1 WTGs ( $EG_{\text{import},y,1}$ ). M2 measures electricity exported by Group 2 WTGs ( $EG_{\text{export},y,2}$ ) and electricity imported from the grid by Group 2 WTGs ( $EG_{\text{import},y,2}$ ).

The meter M3 and meter M4 acts as backup meter of M1 and M2 and measures electricity.

The parameters are continuously measured and monthly recorded, and the cut-off time is 24:00 on the last day of each month.

Net electricity supplied to the grid by the project is calculated on a monthly basis as:

$$EG_{\text{facility},y} = EG_{\text{export},y} - EG_{\text{import},y} - EG_{\text{backupline},y}$$

Where:

$EG_{\text{facility}, y}$  is the calculated power generation from the proposed project;

$EG_{\text{export}, y}$  is the electricity exported to the grid through the main power line metered by the instruments at M1 and M2 (or backup meter M3 and M4);

$EG_{\text{import}, y}$  is the electricity imported from the grid through the main power line metered by the instruments at M1 and M2 (or backup meter M3 and M4);

$EG_{\text{backupline}, y}$  is the electricity delivered to the project through the backup line metered by the instruments at M5.

In case of emergencies and when the wind farm does not produce enough power for auxiliary power use, the project will use the power from grid through the backup line. Power delivered to the project through a backup power line ( $EG_{\text{backupline}, y}$ ) is metered by M5 which is operated by the grid company.

#### 4. Quality Assurance and Quality Control Procedure

Particular QC staff will be appointed by the Project Owner to take the overall responsibility of calibrating monitoring equipment, managing and processing the monitored data.

The metering equipment will be properly calibrated and checked annually by an independent third party according to relevant national standard, e.g. the DL/T448 - 2016 or other national standard, to ensure its accuracy. The accuracy of meter M1, M2, M3 and M4 which have been installed are 0.2s. The accuracy of meter M5 is 0.5s.

All the electricity data are recorded by the working staff and then checked by the team manager.

#### 5. Information collection and management

All physical documents including the readings in electronic and manual form will be stored by the project owner. All data collected as part of monitoring will be kept at least for 2 years after the end of the last crediting period by the project owner.

#### 6. Procedure of emergency handling

In case metering equipment is damaged and no reliable readings can be recorded, the project owner will estimate net supply by the project activity according to the following procedure:

a. In case the main meter is damaged only:

By reading the backup meter.

b. In case both the main meter and the backup one are damaged:

The project owner and the grid company will jointly calculate a conservative estimate of power supplied to the grid. A statement will be prepared indicating

- The background to the damage to metering equipment

- The assumptions used to estimate net supply to the grid for the days for which no record could be recorded the estimation of power supplied to the grid.

## 7. Monitoring Report

The Project owner will annually prepare a monitoring report which will include a summary of metering values of power supplied to and received from the grid, a report on calibration and a calculation of emission reductions.

# 5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

## 5.1 Baseline Emissions

According to ACM0002, the baseline emission during this verification period is calculated as

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

Where:

$BE_y$  is the baseline emissions (tCO<sub>2</sub>e)

$EG_{\text{facility},y}$  is Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh);

$EF_{\text{grid},\text{CM},y}$  is the CO<sub>2</sub> emission factor of the NCPG, which is fixed in the first and second crediting period (tCO<sub>2</sub>e/MWh)

On the basis of these weights for the second crediting period, the combined margin emission factor ( $EF_{\text{CM},y}$ ) is calculated, and are fixed as 0.8269 tCO<sub>2</sub>/MWh.

|                                                                                       | CO <sub>2</sub> emission factor<br>(tCO <sub>2</sub> /MWh) | Weighting |
|---------------------------------------------------------------------------------------|------------------------------------------------------------|-----------|
| Simple operating Margin Emissions Factor<br>( $EF_{\text{grid},\text{OM simple},y}$ ) | 0.9419                                                     | 0.75      |
| Build Margin Emissions Factor ( $EF_{\text{grid}, \text{BM},y}$ )                     | 0.4819                                                     | 0.25      |
| Baseline Emissions Factor ( $EF_{\text{grid},\text{CM},y}$ )                          | 0.8269                                                     |           |

The yearly electricity volume and baseline emissions during this monitoring period are listed in following table 2.

Table 2. Baseline emissions

| Period                                 | EG <sub>export,y</sub><br>(MWh) | EG <sub>import,y</sub><br>(MWh) | EG <sub>backuptline,y</sub><br>(MWh) <sup>6</sup> | EG <sub>facility,y</sub><br>(MWh) | EF <sub>grid,CM,y</sub><br>(tCO <sub>2</sub> /yr) | Baseline Emissions<br>(tCO <sub>2</sub> e) |
|----------------------------------------|---------------------------------|---------------------------------|---------------------------------------------------|-----------------------------------|---------------------------------------------------|--------------------------------------------|
| 01/06/2022~30/06/2022                  | 29,001.328                      | 28.250                          | 0.000                                             | 28,973.078                        | 0.82690                                           | 23,957                                     |
| 01/07/2022-31/07/2022                  | 34,898.003                      | 23.590                          | 0.000                                             | 34,874.413                        | 0.82690                                           | 28,837                                     |
| 01/08/2022-31/08/2022                  | 38,017.365                      | 22.950                          | 0.000                                             | 37,994.415                        | 0.82690                                           | 31,417                                     |
| 01/09/2022-30/09/2022                  | 36,907.316                      | 27.040                          | 0.000                                             | 36,880.276                        | 0.82690                                           | 30,496                                     |
| 01/10/2022-31/10/2022                  | 35,852.141                      | 23.610                          | 0.000                                             | 35,828.531                        | 0.82690                                           | 29,626                                     |
| 01/11/2022-30/11/2022                  | 35,012.003                      | 26.310                          | 0.000                                             | 34,985.693                        | 0.82690                                           | 28,929                                     |
| 01/12/2022-31/12/2022                  | 41,592.183                      | 21.900                          | 0.000                                             | 41,570.283                        | 0.82690                                           | 34,374                                     |
| <b>Total in 2022</b>                   | <b>251,280.339</b>              | <b>173.650</b>                  | <b>0.000</b>                                      | <b>251,106.689</b>                |                                                   | <b>207,636</b>                             |
| 01/01/2023-31/01/2023                  | 39,001.241                      | 23.440                          | 0.000                                             | 38977.801                         | 0.82690                                           | 32,230                                     |
| 01/02/2023-28/02/2023                  | 37,866.023                      | 22.500                          | 0.000                                             | 37843.523                         | 0.82690                                           | 31,292                                     |
| 01/03/2023-31/03/2023                  | 37,925.228                      | 22.850                          | 0.000                                             | 37902.378                         | 0.82690                                           | 31,341                                     |
| 01/04/2023-30/04/2023                  | 30,355.554                      | 23.880                          | 0.000                                             | 30331.674                         | 0.82690                                           | 25,081                                     |
| 01/05/2023-31/05/2023                  | 31,568.045                      | 25.610                          | 0.000                                             | 31542.435                         | 0.82690                                           | 26,082                                     |
| <b>Total in 2023</b>                   | <b>176,716.091</b>              | <b>118.280</b>                  | <b>0.000</b>                                      | <b>176,597.81</b>                 |                                                   | <b>146,026</b>                             |
| <b>Total in this monitoring period</b> | <b>427,996.430</b>              | <b>291.930</b>                  | <b>-</b>                                          | <b>427,704.500</b>                |                                                   | <b>353,662</b>                             |

The monthly data are shown in appendix 1.

In summary, the baseline emissions BE<sub>y</sub> during this monitoring period is 353,662 tCO<sub>2</sub>e.

## 5.2 Project Emissions

According to the ACM0002, the emission of wind power project activity is zero, i.e. PE<sub>y</sub>=0.

## 5.3 Leakage

According to ACM0002, the leakage of wind power project is not needed to be considered.

## 5.4 Net GHG Emission Reductions and Removals

In according with the registered PD, ER<sub>y</sub>=BE<sub>y</sub> – PE<sub>y</sub>

| Year                  | Baseline emissions or removals<br>(tCO <sub>2</sub> e) | Project emissions or removals<br>(tCO <sub>2</sub> e) | Leakage emissions<br>(tCO <sub>2</sub> e) | Net GHG emission reductions or removals<br>(tCO <sub>2</sub> e) |
|-----------------------|--------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------|
| 01/06/2022-31/12/2022 | 207,636                                                | 0                                                     | 0                                         | 207,636                                                         |

<sup>6</sup> There is no electricity imported from the grid through the 10kV line during 01/06/2022 to 31/05/2023.

|                       |                |          |          |                |
|-----------------------|----------------|----------|----------|----------------|
| 01/01/2023-31/05/2023 | 146,026        | 0        | 0        | 146,026        |
| <b>Total</b>          | <b>353,662</b> | <b>0</b> | <b>0</b> | <b>353,662</b> |

According to the renewal VCS PD, the estimated annual GHG emission reductions during the second crediting period (from 25/05/2020 to 24/05/2030) are 335,460 tCO<sub>2</sub>e/yr.

| Year                  | Net GHG emission reductions or removals (tCO <sub>2</sub> e) | Ex-ante emissions reductions (tCO <sub>2</sub> e) | Percent difference |
|-----------------------|--------------------------------------------------------------|---------------------------------------------------|--------------------|
| 01/06/2022-31/12/2022 | 207,636                                                      | 196,681                                           | 5.57%              |
| 01/01/2023-31/05/2023 | 146,026                                                      | 138,779                                           | 5.22%              |
| <b>Total</b>          | <b>353,662</b>                                               | <b>335,460</b>                                    | <b>5.43%</b>       |

This monitoring period is from 01/06/2022 to 31/05/2023 (365 days). The emission reductions claimed are 353,662 tCO<sub>2</sub>e in this monitoring period (i.e. 365 days). Compared with expected emission reductions 335,460 tCO<sub>2</sub>e in the renewal VCS PD, the reported emission reductions in this monitoring period are 5.43% larger than the expected.

| Ex-ante emissions reductions                 | Achieved emissions reductions | Percent difference | Justification for the difference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------|-------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>335,460</b><br>Monitoring Period<br>Total | <b>353,662</b>                | <b>5.43%</b>       | <p>The actual power generation was larger than expected, mainly due to the rich wind energy resources in the project area.</p> <p>According to Annual Bulletin of China's Wind and Solar Energy Resources in 2022, wind turbines commonly installed with a height of 70 meters have better wind energy resources, which is conducive to wind power generation.</p> <p>This project is located in Zhangjiakou City, Hebei Province, which is the main air flow channel for the cold air from the Mongolian Plateau to enter the North China Plain, with unique wind energy resources. According to the tests of authoritative institutions, the average annual effective wind speed time is more than 6000 hours, which is much higher than the average national wind power</p> |

|  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  | <p>utilization hours of 3,412 hours in 2022 released by China Electricity Union.</p> <p>To summarize the above, the reported emission reductions in this monitoring period are 5.43% larger than the expected is considered to be in the reasonable variation range. This will not impact the additionally of the project activity as the sensitivity analysis of the project activity shows that the IRR will not exceeds benchmark until an 14.4% increase in Grid-connected electricity. The main reason for the electricity generation increase is that the wind flow in this monitoring period are larger than the designing value in the FSR, the management skills of the plant improves gradually and the wind power accommodation capacity of the grid is increasing.</p> |
|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# APPENDIX 1: < MONTHLY AND YEARLY ELECTRICITY SUPPLY >

| Period                                 | EG <sub>export,y</sub>                                                    |                                                                           |                                               |                                      |                          | EG <sub>import,y</sub>                                              |                                                                     |                                               |                                      |                          | EG <sub>backuptline,y</sub> (MWh) | EG <sub>facility,y</sub> (MWh) |
|----------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------|--------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------|--------------------------------------|--------------------------|-----------------------------------|--------------------------------|
|                                        | Data from Monthly meter reading records<br>EG <sub>export,y,1</sub> (MWh) | Data from Monthly meter reading records<br>EG <sub>export,y,2</sub> (MWh) | Data from Monthly meter reading records (MWh) | Data from Electricity Receipts (MWh) | Conservative value (MWh) | Data from Monthly meter reading records<br>EG <sub>import,y,1</sub> | Data from Monthly meter reading records<br>EG <sub>import,y,2</sub> | Data from Monthly meter reading records (MWh) | Data from Electricity Receipts (MWh) | Conservative value (MWh) |                                   |                                |
|                                        | A                                                                         | B                                                                         | C=A+B                                         | D                                    | E=MIN(C,D)               | F                                                                   | G                                                                   | H=F+G                                         | I                                    | J=MAX(H,I)               |                                   |                                |
| 2022/06/01~2022/06/30                  | 14335.181                                                                 | 15127.663                                                                 | 29462.844                                     | 29001.328                            | 29001.328                | 12.380                                                              | 15.117                                                              | 27.497                                        | 28.250                               | 28.250                   | 0.000                             | 28,973.078                     |
| 2022/07/01~2022/07/31                  | 17802.718                                                                 | 17226.982                                                                 | 35029.700                                     | 34898.003                            | 34898.003                | 10.010                                                              | 12.180                                                              | 22.190                                        | 23.590                               | 23.590                   | 0.000                             | 34,874.413                     |
| 2022/08/01~2022/08/31                  | 20220.118                                                                 | 18039.042                                                                 | 38259.160                                     | 38017.365                            | 38017.365                | 12.660                                                              | 9.270                                                               | 21.930                                        | 22.950                               | 22.950                   | 0.000                             | 37,994.415                     |
| 2022/09/01~2022/09/30                  | 18023.733                                                                 | 19017.822                                                                 | 37041.555                                     | 36907.316                            | 36907.316                | 15.330                                                              | 10.910                                                              | 26.240                                        | 27.040                               | 27.040                   | 0.000                             | 36,880.276                     |
| 2022/10/01~2022/10/31                  | 18770.311                                                                 | 17298.251                                                                 | 36068.562                                     | 35852.141                            | 35852.141                | 11.030                                                              | 11.820                                                              | 22.850                                        | 23.610                               | 23.610                   | 0.000                             | 35,828.531                     |
| 2022/11/01~2022/11/30                  | 17690.578                                                                 | 18092.335                                                                 | 35782.913                                     | 35012.003                            | 35012.003                | 15.340                                                              | 10.280                                                              | 25.620                                        | 26.310                               | 26.310                   | 0.000                             | 34,985.693                     |
| 2022/12/01~2022/12/31                  | 20191.882                                                                 | 21804.681                                                                 | 41996.563                                     | 41592.183                            | 41592.183                | 10.270                                                              | 11.380                                                              | 21.650                                        | 21.900                               | 21.900                   | 0.000                             | 41,570.283                     |
| <b>Total in 2022</b>                   | <b>127034.521</b>                                                         | <b>126606.776</b>                                                         | <b>253641.297</b>                             | <b>251280.339</b>                    | <b>251280.339</b>        | <b>87.020</b>                                                       | <b>80.957</b>                                                       | <b>167.977</b>                                | <b>173.650</b>                       | <b>173.650</b>           | <b>0.000</b>                      | <b>251,106.689</b>             |
| 2023/01/01~2023/01/31                  | 20518.022                                                                 | 18793.451                                                                 | 39311.473                                     | 39001.241                            | 39001.241                | 10.020                                                              | 12.950                                                              | 22.970                                        | 23.440                               | 23.440                   | 0.000                             | 38,977.801                     |
| 2023/02/01~2023/02/28                  | 20161.770                                                                 | 18013.550                                                                 | 38175.320                                     | 37866.023                            | 37866.023                | 12.270                                                              | 9.030                                                               | 21.300                                        | 22.500                               | 22.500                   | 0.000                             | 37,843.523                     |
| 2023/03/01~2023/03/31                  | 22031.268                                                                 | 16090.417                                                                 | 38121.685                                     | 37925.228                            | 37925.228                | 10.090                                                              | 12.182                                                              | 22.272                                        | 22.850                               | 22.850                   | 0.000                             | 37,902.378                     |
| 2023/04/01~2023/04/30                  | 15732.522                                                                 | 15201.831                                                                 | 30934.353                                     | 30355.554                            | 30355.554                | 10.680                                                              | 12.220                                                              | 22.900                                        | 23.880                               | 23.880                   | 0.000                             | 30,331.674                     |
| 2023/05/01~2023/05/31                  | 15026.814                                                                 | 16913.471                                                                 | 31940.285                                     | 31568.045                            | 31568.045                | 9.310                                                               | 15.230                                                              | 24.540                                        | 25.610                               | 25.610                   | 0.000                             | 31,542.435                     |
| <b>Total in 2023</b>                   | <b>93470.396</b>                                                          | <b>85012.720</b>                                                          | <b>178483.116</b>                             | <b>176716.091</b>                    | <b>176716.091</b>        | <b>52.370</b>                                                       | <b>61.612</b>                                                       | <b>113.982</b>                                | <b>118.280</b>                       | <b>118.280</b>           | <b>0.000</b>                      | <b>176,597.811</b>             |
| <b>Total in this monitoring period</b> | <b>220504.917</b>                                                         | <b>211619.496</b>                                                         | <b>432124.413</b>                             | <b>427996.430</b>                    | <b>427996.430</b>        | <b>139.390</b>                                                      | <b>142.569</b>                                                      | <b>281.959</b>                                | <b>291.930</b>                       | <b>291.930</b>           | <b>0.000</b>                      | <b>427,704.500</b>             |

## APPENDIX 2: < DESCRIPTION OF EMPLOYMENT AND SALARY>

**Evidence for SDG 7 and 13:** From project operation date onwards, the net electricity supplied to the grid and the emission reduction in every monitoring period have been listed in below table. Please refer to following links for details.

<https://registry.verra.org/app/projectDetail/VCS/903>

<https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1306303373.74/view>

| Monitoring period       | EGy(MWh)             | Emission Reductions (tCO <sub>2</sub> e) | Status              |
|-------------------------|----------------------|------------------------------------------|---------------------|
| 25/05/2010 - 14/09/2011 | 493,191.505          | 520,242                                  | Issued              |
| 15/09/2011 - 09/01/2012 | 108,443.775          | 114,391                                  | Issued              |
| 10/01/2012 - 03/10/2012 | 295,712.244          | 311,932                                  | Issued              |
| 04/10/2012 - 31/12/2012 | 103,442.000          | 109,115                                  | Issued              |
| 01/01/2013 - 30/09/2015 | 937,378.000          | 988,793                                  | Issued              |
| 01/10/2015 - 29/02/2020 | 1,916,408.837        | 2,021,522                                | Issued              |
| 01/03/2020 - 30/11/2021 | 759,116.945          | 650,945                                  | Issued              |
| 01/12/2021 - 31/05/2022 | 213,467.254          | 176,514                                  | Issued              |
| 01/06/2022 - 31/05/2023 | 427,704.500          | 353,662                                  | In requesting VCU's |
| <b>Total</b>            | <b>5,254,865.060</b> | <b>5,247,116</b>                         |                     |

**Evidence for 8:** The payroll of the project staff, including name, gender, wage, insurance and housing fund and other specific information has been submitted to VVB for verification. Thus, the payroll is not included as appendices to this report due to confidentiality requirement of the project proponent.

## 说 明

沽源东辛营 199.5MW 风电项目，建设阶段为当地提供了超过 500 个工作岗位，并在项目运营期间提供 55 个永久工作岗位。截至目前，员工人数共计 55 人，女员工 20 人，其中 15 名女员工为项目周边村庄居民。

本项目严格遵守国家政策规定和公司薪资管理制度，2022-2023 年间，人均税后工资为 5000 元/月。下一步，项目公司还将增设更多岗位，帮助周边村民实现就近就地就业。

特此说明！

河北建投新能源有限公司

2023 年 6 月 7 日

Hebei Guyuan County Dongxinying 199.5MW Wind Power Project has provided more than 500 local jobs during the construction phase and 55 permanent jobs during the project operation. Up to now, the total number of employees is 55, including 20 female employees, 15 of whom are residents of the villages surrounding the project.

The project company strictly complies with national policies and regulations and the company's salary management system. Between 2022-2023, the per capita after-tax salary is 5,000 Yuan RMB/month. In the next step, the project company will add more jobs to help villagers find jobs nearby.

Hebei Construction Investment New Energy Co., Ltd.

June 7, 2023