



Verified Carbon Standard

GUOHUA WULATE ZHONGQI PHASE I 49.5MW WIND FARM PROJECT

Document Prepared by

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Contact Information

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The purpose of the report is to calculate the emission reductions generated by Guohua Wulate Zhongqi Phase I 49.5MW Wind Farm Project (thereafter referred to the project) during the monitoring period (01/08/2019 to 31/07/2022), and to serve as basis for the verification and issuance of corresponding VCUs.

The Project, developed by Guohua Bayannaer (Wulate Zhongqi) Wind Power Co., Ltd., involves construction and operation of a wind power project that is sited in Urad Zhongqi, Bayan Nur League, Inner Mongolia Autonomous Region, P.R. China. The construction start date for the project is 10/06/2008. The first power unit started operation on 30/07/2009, and all the wind turbine generators were put into operation on 14/08/2009. The Project has been registered as a CDM project on 01/03/2010 (UNFCCC registration reference number: 2597).

The total installed capacity of the Project is 49.5MW consisting of 33 sets of wind turbine with unit capacity of 1.5MW. The electricity generated by the Project is delivered to the North China Power Grid (NCPG). The scenario existing prior to the start of the implementation of the project is the same as the baseline scenario, i.e. electricity would have otherwise been generated by the operation of existing power plants connected to NCPG and by the addition of new generation sources of NCPG. After the project is put into operation, the power generated will replace a part of power supply in NCPG which is dominated by fuel-fired power plants and thus reduce greenhouse gas (GHG) emission through avoiding CO₂ emissions produced by NCPG. The estimated annual net electricity supplied to the grid is 124,300MWh and the estimated annual emission reductions are 104,467 tCO₂e during the second crediting period.

During this monitoring period (01/08/2019 to 31/07/2022), the monitoring activities were conducted strictly in accordance with the monitoring plan contained in the registered CDM-PDD. The Project has operated without any accidental or emergency events that might impact the accuracy and/or implementation of monitoring activities during this monitoring period. The net power supply during this monitoring period is 416,162.311 MWh. The total emission reductions in this monitoring period (01/08/2019 to 31/07/2022) are 349,762 tCO₂e.

1.2 Sectoral Scope and Project Type

Sectoral scope 1: Energy industries (renewable/non-renewable sources)

Project type: Grid-connected wind power project.

The project is not a grouped project.

1.3 Project Proponent

Organization name	Guohua Bayannaer (Wulate Zhongqi) Wind Power Co., Ltd.
Contact person	Mr. Hu Weiping
Title	Project manager
Address	No. 3 of Dongzhimen South Street, Dongcheng District, Beijing
Telephone	010-58151719
Email	20005222@ceic.com

1.4 Other Entities Involved in the Project

Organization name	N/A
Role in the Project	N/A
Contact person	N/A
Title	N/A
Address	N/A
Telephone	N/A
Email	N/A

1.5 Project Start Date

30/07/2009, on which the VCS project began reducing GHG emissions.

1.6 Project Crediting Period

01/08/2009 - 31/07/2019, the first crediting period which covers 10 years.

01/08/2019 - 31/07/2029, the second crediting period which covers 10 years.

This monitoring period is covered by the second crediting period.

There is a deviation for the crediting period. The project is registered under VCS Standard 3 and completed validation before 19/03/2020, thus it remains eligible to apply the crediting period requirements under VCS Version 3 which shall be a maximum of ten years and may be renewed at most twice, so the first renewable crediting period of the project shall be updated from 01/08/2009- 28/02/2010 to 01/08/2009 - 31/07/2019. However the project lifetime is 20 years. Therefore the project crediting life would be 01/08/2009 – 31/07/2029.

1.7 Project Location

The Project is located in Urad Zhongqi, Bayan Nur League, Inner Mongolia Autonomous Region, P.R. China, and the geographical coordinates are 108° 19'15"-108° 23'40" east longitude and 41° 54'48"-41° 56'35" north latitude.

1.8 Title and Reference of Methodology

Approved consolidated baseline and monitoring methodology ACM0002.version 20.0-“Grid-connected electricity generation from renewable sources”

The methodology also refers to the approved version for the following tool:

- Tool to calculate the emission factor for an electricity system version 07.0.0

Reference:

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

1.9 Participation under other GHG Programs

The Project was registered as a CDM project on 01/03/2010 (Ref. 2597). The first CDM crediting period is from 01/03/2010 to 28/02/2017. CERs of 490,997 tCO₂e have been issued for the monitoring period from 01/03/2010 to 20/01/2014. The emission reductions during this monitoring period (01/08/2019 to 31/07/2022) will only apply for issuance under VCS, which is ensured by the statement that the PP will not request the issuance of CERs under CDM and the VUs will not be double counted.

1.10 Other Forms of Credit

Emission Trading Programs and Other Binding Limits

China has a national emissions trading scheme 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 CO₂e/year, not including renewable project¹.

Thus, the project proponent: Guohua Bayannaer (Wulate Zhongqi) Wind Power Co., Ltd. as an enterprise for renewable energy investment, is not included in the compliance entity list by China national Emission Trading Scheme (ETS). Moreover, the project has not been registered as a CCER (Chinese Certified Emission Reductions) project in China, thus it is not eligible for emission reductions transaction under the China's ETS.

¹ http://www.mee.gov.cn/xxgk2018/xxgk/xxgk05/202103/t20210330_826728.html

Therefore, 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. The net GHG emission reductions generated during this monitoring period have not been used for compliance under such programs or mechanisms. Furthermore, a statement on no double counting will be submitted to Verra to confirm the credits during this monitoring period has not been counted and will not be counted under emission trading programs and other binding limits.

Other Forms of Environmental Credit

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

1.11 Sustainable Development Contributions

The Project activity will not only supply renewable electricity to grid, but also contribute to sustainable development of the local community, which mainly include the following:

- The project utilizes wind resources to generate and supplied 416,162.311MWh renewable electricity to the power grid during this monitoring period, which contributes to SDG 7.
- The project provides 10 long-term job opportunities for local residents during this monitoring period, which has a positive effect on the local economy which contributes to SDG 8.
- The project utilizes zero-emission wind power to supply electricity to the grid, and reduces 349,762 tCO₂e of GHG emissions during this monitoring period, which contributes to SDG 13.

For evidence of SDGs, please refer to Appendix 1 for details.

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 consumption	Implemented activities to increase	The project has provided 416,162.311 MWh renewable energy generation during this monitoring period.	This is the first time to report sustainable development contributions of the project. The project has provided 416,162.311 MWh renewable energy generation accumulated at the end of this monitoring period.

2)	8.5	8.5.1 Average hourly earnings of employees, by sex, age, occupation and persons with disabilities	Implemented activities to increase	<p>The project has employed 10 persons including 7 men and 3 women during this monitoring period with yearly average salary higher than the local average salary of the respective years ².</p> <table border="1" data-bbox="999 448 1392 878"> <thead> <tr> <th>Year</th> <th>Average yearly salary of the project (CNY)</th> <th>Local average salary (CNY)</th> </tr> </thead> <tbody> <tr> <td>2019</td> <td>112,335</td> <td>83,277</td> </tr> <tr> <td>2020</td> <td>115,960</td> <td>87,916</td> </tr> <tr> <td>2021</td> <td>124,893</td> <td>93,266</td> </tr> </tbody> </table>	Year	Average yearly salary of the project (CNY)	Local average salary (CNY)	2019	112,335	83,277	2020	115,960	87,916	2021	124,893	93,266	Employed about 10 persons yearly.
Year	Average yearly salary of the project (CNY)	Local average salary (CNY)															
2019	112,335	83,277															
2020	115,960	87,916															
2021	124,893	93,266															
3)	13.0	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	By supplying 416,162.311 MWh renewable energy to the grid, the project has prevented the release of 349,762 tonnes of carbon into the atmosphere during the monitoring period.	This is the first time to report sustainable development contributions of the project. the project prevented the release of 349,762 tonnes of carbon into the atmosphere accumulated at the end of this monitoring period.												

² http://tj.nmg.gov.cn/files_pub/content/PAGEPACK/cd1ebd873e844e50844846b25256a59b/zk/indexch.htm

2 SAFEGUARDS

2.1 No Net Harm

In accordance with relevant laws and regulations on environmental protection, an Environmental Impact Assessment (EIA) of the proposed project has been implemented. The results of the EIA have been approved by the Environmental Protection Bureau of Inner Mongolia.

The EIA has assessed every possible aspect of environmental impacts of the project and recommended corresponding measures, where applicable. The environmental impacts and corresponding mitigation measures during operation have been discussed in the registered CDM-PDD. No negative environmental impacts have been identified.

Furthermore, the project makes positive contributions to the sustainable development as described in section 1.11 of this report e.g., providing job opportunities and clean energy to the local community, and mitigating GHG emissions.

In conclusion, construction and operation of the project does not cause any negative environmental nor socio-economic impacts.

2.2 Local Stakeholder Consultation

LSC prior to the project implementation

A public survey was conducted on 14/01/2008 by the project owner. Questionnaires were distributed to the stakeholders in the directly affected area, requesting comments on the proposed project construction. As there are few people living around the wind farm project site, 30 copies of questionnaire were distributed and 30 copies of the questionnaire were returned. Most of the local residents knew about wind power projects and most representatives think the proposed project will do good to local environment and economy and all support it.

LSC during the operation period

During this monitoring period, the project carried out the communication with local stakeholders in line with the on-going communication mechanism, i.e.,

The project owner published the contact information of the contact person who is responsible for stakeholders' comments to the local government and residents. Stakeholders were informed of the contact information, and their comments can be directly collected by the contact person. The comments would be fed back to the stakeholders by the contact person for a timely response. Besides, the contact person of project owner also meets local villagers to collect their comments and suggestions at least yearly. Actually the contact person met local villagers to collect their comments and suggestions respectively in May 2019, June 2020, May 2021, and May 2022. Once the contact person received negative comments from the stakeholders, the contact person would record the negative comments and the feedback. The local authority also conducts spot checks on the implementation of the project at periodic intervals as per relevant regulations.

In line with VCS requirements all the processed have been implemented to receive comments from local stakeholders as well as communicate with them. By the end of this monitoring period, the project did not receive any negative comments nor grievance from the stakeholders.

2.3 AFOLU-Specific Safeguards

The project is a non-AFOLU project, and this section is not required.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The total installed capacity of the Project is 49.5MW consisting of 33 sets of wind turbine with unit capacity of 1.5MW. See Table 2 below for key technical specifications.

Table 2. Major technical parameters of the key equipments of the Project

No	Item	Unit	Value
1	Type	KW	1500
2	Diameter	m	77
3	Covering Area	m ²	4657
4	Rotation speed of wind wheel	r/min	11.1~22.2
5	Cut in wind speed	m/s	3.0
6	Normal wind speed	m/s	12
7	Cut out wind speed	m/s	22
8	Hub height	m	65
9	Norminal voltage	V	690

No abnormal circumstance occurred during this monitoring period. There is no event or situation occurred during the monitoring period, which may impact the applicability of the methodology and may impact the GHG emission reductions or removals and monitoring. The project was operational as normal during the monitoring period.

3.2 Deviations

3.2.1 Methodology Deviations

No methodology deviation exists.

3.2.2 Project Description Deviations

There is a deviation for the crediting period. The project is registered under VCS Standard 3 and completed validation before 19/03/2020, thus it remains eligible to apply the crediting period requirements under VCS Version 3 which shall be a maximum of ten years and may be renewed at most twice, so the first renewable crediting period of the project shall be updated from 01/08/2009- 28/02/2010 to 01/08/2009 - 31/07/2019. However the project lifetime is 20 years. Therefore the project crediting life would be 01/08/2009 - 31/07/2029. This deviation

has been validated during the renewal of the crediting period. This deviation is related to the change on the duration of the crediting period, which does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

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	$EF_{grid,CM,y}$
Data unit	tCO ₂ e/MWh
Description	The combined margin grid emission factor of the North China Power Grid where the Project connected to
Source of data	Registered CDM-PDD
Value applied	0.84045
Justification of choice of data or description of measurement methods and procedures applied	Determined ex-ante and fixed for the 2 nd crediting period
Purpose of Data	Calculation of baseline emissions.
Comments	-

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{export,y}$
Data unit	MWh
Description	Electricity exported to the North China Power Grid by the project in year y
Source of data	Electricity meter reading
Description of measurement methods and procedures to be applied	Bidirectional meters (M1 and M2, among which M1 consists of 3 electricity meters including M1.1, M1.2 and M1.3) are installed to measure the Electricity exported to the North China Power Grid by the project in year y
Frequency of monitoring/recording	Monthly recorded and aggregated

Value monitored	417,146.200
Monitoring equipment	See table below
QA/QC procedures to be applied	<p>Meters have been properly calibrated annually according to the requirement from Technical administrative code of electric energy metering (national standard reference: DL/T448), and in compliance with the requirement of monitoring plan. Meter readings are crosschecked with sales receipts.</p> <p>All data and records are archived during the crediting period and at least 2 years after the end of the crediting period.</p>
Purpose of the data	Calculation of baseline emissions
Calculation method	-
Comments	-

Data / Parameter	EG _{import,y}
Data unit	MWh
Description	Electricity imported by the project from the North China Power Grid in year y
Source of data	Electricity meter reading
Description of measurement methods and procedures to be applied	<p>Bidirectional meters (M1 and M2, among which M1 consists of 3 electricity meters including M1.1, M1.2 and M1.3) are installed to measure the Electricity imported by the project from the North China Power Grid in year y</p>
Frequency of monitoring/recording	Monthly recorded and aggregated
Value monitored	983.889
Monitoring equipment	See table below
QA/QC procedures to be applied	<p>Meters have been properly calibrated annually according to the requirement from Technical administrative code of electric energy metering (national standard reference: DL/T448), and in compliance with the requirement of monitoring plan. Meter readings are crosschecked with sales receipts.</p> <p>All data and records are archived during the crediting period and at least 2 years after the end of the crediting period.</p>
Purpose of the data	Calculation of baseline emissions
Calculation method	-

Comments	-
Data / Parameter	EG _{facility,y}
Data unit	MWh
Description	Net electricity generation supplied by the project to the grid in year y
Source of data	Calculation: $EG_{facility,y} = EG_{export,y} - EG_{import,y}$
Description of measurement methods and procedures to be applied	Calculated by $EG_{facility,y} = EG_{export,y} - EG_{import,y}$
Frequency of monitoring/recording	Monthly recorded and aggregated
Value monitored	416,162.311
Monitoring equipment	See table below.
QA/QC procedures to be applied	Calculated by $EG_{facility,y} = EG_{export,y} - EG_{import,y}$
Purpose of the data	Used for baseline emission calculation
Calculation method	Calculated by $EG_{facility,y} = EG_{export,y} - EG_{import,y}$
Comments	-

Table 3 Information of meters

Meter	Type	Serial No.	Accuracy	Calibration date	Valid till	Calibrator
M1.1	Electricity meter	LY806380	0.5S	09/01/2019	08/01/2020	Inner Mongolia Electricity Research Institute
				29/12/2019	28/12/2020	
				23/12/2020	22/12/2021	
				19/12/2021	18/12/2022	
M1.2	Electricity meter	LY807098	0.5S	09/01/2019	08/01/2020	
				29/12/2019	28/12/2020	
				23/12/2020	22/12/2021	
				19/12/2021	18/12/2022	
M1.3	Electricity meter	LY807108	0.5S	09/01/2019	08/01/2020	
				29/12/2019	28/12/2020	
				23/12/2020	22/12/2021	
				19/12/2021	18/12/2022	
M2	Electricity meter	94743524	0.2S	04/01/2019	03/01/2020	
				29/12/2019	28/12/2020	
				23/12/2020	22/12/2021	
				19/12/2021	18/12/2022	

4.3 Monitoring Plan

Organization Structure

Plant manager of wind farm is responsible for recording and collecting the information and data required by the Monitoring Plan. The required information and data will be documented and sent to the CDM officer monthly. The CDM officer works out the monitoring plan, charges of its implementation and reports to the General Manager of the company. The General Manager of the company will make the confirmations on monitoring calculation data and reports.

For details regarding the management structure of the monitoring plan, please refer to Figure 1.



Figure 1. Management Structure of Monitoring Plan

Data collection procedures

The electricity data is metered through the main meter (M1 consists of 3 electricity meters including M1.1, M1.2 and M1.3) installed at on-site substation of the project. The main meter is owned, operated and maintained by the project owner. The main meter with accuracy of no less than 0.5% is bidirectional and has two-way metering, recording both the electricity exported to the grid ($EG_{\text{export},y}$) and imported from the grid ($EG_{\text{import},y}$); net electricity supplied to the grid is calculated as exports minus imports ($EG_{\text{facility},y} = EG_{\text{export},y} - EG_{\text{import},y}$). This data will be cross checked by the receipt of sales. A back-up meter (M2) is installed at the Wengeng substation, which will be owned, operated and maintained by the grid company. The accuracy of the back-up meter is also no less than 0.5%.

See the following figure for the monitoring points:

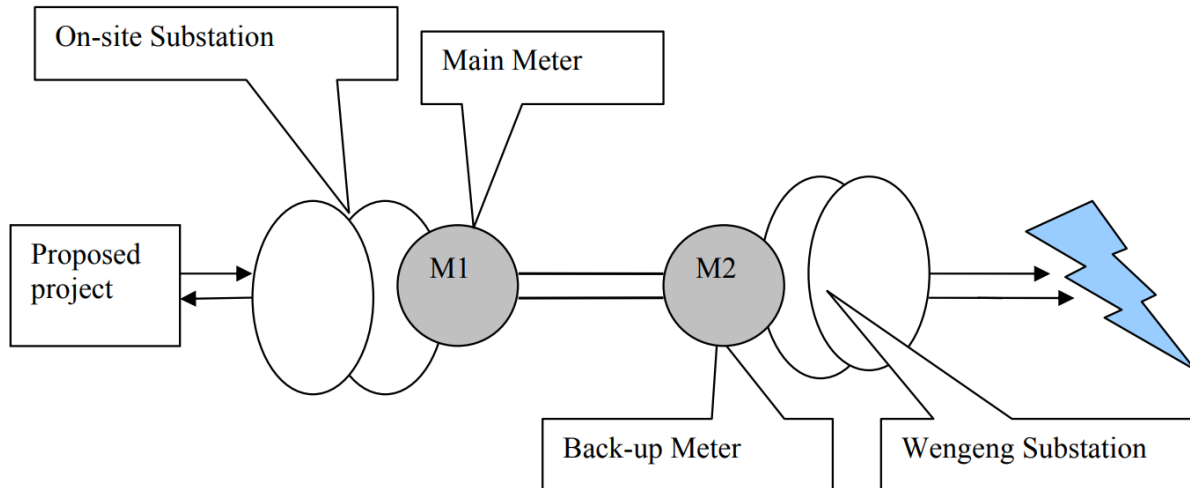


Figure 2. Monitoring points

The cut-off time of $EG_{export,y}$, $EG_{import,y}$ is 24:00 of the last day of each month. On monthly basis, the grid company issues sales receipts to the project company. Sale receipts are used for double check the measured data of electricity. The conservative data between the value measured and the sales receipts will be used for the emission reduction calculation. All meters mentioned above are continuously measured and monthly recorded used to calculate the Project's net electricity delivered to the grid.

Calibration of Meters & Metering

The main meter is owned, operated and maintained by the proposed project owner, and the backup meter is owned, operated and maintained by the Grid Company. The main meter is calibrated and checked for accuracy:

- 1) The main meter equipment shall have sufficient accuracy so that error resulting from such equipment shall not exceed 0.5% of full-scale rating.
- 2) All the meters installed shall be tested within 10 days after:
 - (a) The detection of a difference larger than the allowable error in the reading of both meters
 - (b) The repair of all or part of the meter caused by the failure of one or more parts to operate in accordance with the specifications.

Calibration is carried out by the qualified third party, and the calibration report should be provided to the project owner.

Data management system

Physical document such as paper-based maps, diagrams and environmental assessments were collated in a central place, together with this monitoring plan. The project owner also kept the copies of sale receipts and prepared this monitoring report.

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

Emergency procedures

In case of emergencies, which means that under the condition that project entity cannot monitor the main meter due to the unexpected accident, the project entity follows the following procedure: In case that the monitoring meters cannot be monitored due to the unexpected accident, the data is confirmed between the grid company and the project owner. During this monitoring period, no emergency happened.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

As per the registered PD, the baseline emission of the project is calculated as below:

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

Table 4 Baseline emissions calculation

Year	EG _{facility,y}	EF _{grid,CM,y}	BE _y
	MWh	tCO ₂ e/MWh	tCO ₂ e
2019 (01/08/2019 to 31/12/2019)	56,546.075	0.84045	47,524
2020 (01/01/2019 to 31/12/2020)	138,454.932	0.84045	116,364
2021 (01/01/2021 to 31/12/2021)	147,590.348	0.84045	124,042
2022 (01/01/2022 to 31/07/2022)	73,570.956	0.84045	61,832
total	416,162.311	/	349,762

The monitored monthly electricity data is shown in the tables below:

Table 5 Monitoring results (MWh)

Period start	Period end	EG _{export,y}			EG _{import,y}			EG _y =EG _{export,y} - EG _{import,y}
		Meter reading records	Sales receipts	Conservative values min(meter reading records, sales receipts)	Meter reading records	Sales receipts	Conservative values max(meter reading records, sales receipts)	
01/08/2019	31/08/2019	9,284.625	9,280.830	9,280.830	33.250	33.655	33.655	9,247.175
01/09/2019	30/09/2019	10,305.750	10,301.780	10,301.780	13.125	13.445	13.445	10,288.335
01/10/2019	31/10/2019	12,032.125	12,027.030	12,027.030	26.250	26.492	26.492	12,000.538
01/11/2019	30/11/2019	13,223.875	13,218.590	13,218.590	29.750	30.377	30.377	13,188.213
01/12/2019	31/12/2019	11,859.750	11,855.510	11,855.510	33.250	33.696	33.696	11,821.814
Subtotal 2019		-	-	56,683.740	-	-	137.665	56,546.075
01/01/2020	31/01/2020	12,370.750	12,366.200	12,366.200	54.250	54.740	54.740	12,311.460
01/02/2020	29/02/2020	13,162.625	13,156.310	13,156.310	29.750	29.951	29.951	13,126.359
01/03/2020	31/03/2020	14,445.375	14,439.170	14,439.170	27.125	27.470	27.470	14,411.700
01/04/2020	30/04/2020	10,763.375	10,758.100	10,758.100	37.625	38.326	38.326	10,719.774
01/05/2020	31/05/2020	11,657.625	11,654.080	11,654.080	21.000	21.102	21.102	11,632.978
01/06/2020	30/06/2020	10,275.125	10,270.080	10,270.080	18.375	19.102	19.102	10,250.978
01/07/2020	31/07/2020	9,964.500	9,959.770	9,959.770	36.750	37.406	37.406	9,922.364
01/08/2020	31/08/2020	9,170.000	9,165.620	9,165.620	40.250	41.064	41.064	9,124.556
01/09/2020	30/09/2020	8,905.750	8,900.890	8,900.890	28.000	28.845	28.845	8,872.045
01/10/2020	31/10/2020	13,419.875	13,415.240	13,415.240	28.875	29.218	29.218	13,386.022
01/11/2020	30/11/2020	11,722.375	11,716.210	11,716.210	35.000	35.803	35.803	11,680.407
01/12/2020	31/12/2020	13,041.000	13,034.440	13,034.440	17.500	18.151	18.151	13,016.289

Subtotal 2020		-	-	138,836.110	-	-	381.178	138,454.932
01/01/2021	31/01/2021	17,569.125	17,563.150	17,563.150	20.125	20.609	20.609	17,542.541
01/02/2021	28/02/2021	13,085.625	13,079.070	13,079.070	26.250	26.315	26.315	13,052.755
01/03/2021	31/03/2021	11,739.000	11,734.350	11,734.350	22.750	22.838	22.838	11,711.512
01/04/2021	30/04/2021	11,605.125	11,600.200	11,600.200	21.000	21.307	21.307	11,578.893
01/05/2021	31/05/2021	14,900.375	14,895.450	14,895.450	21.000	21.381	21.381	14,874.069
01/06/2021	30/06/2021	10,271.625	10,267.340	10,267.340	22.750	23.284	23.284	10,244.056
01/07/2021	31/07/2021	8,566.250	8,563.250	8,563.250	21.000	21.528	21.528	8,541.722
01/08/2021	31/08/2021	9,394.875	9,390.810	9,390.810	26.250	26.977	26.977	9,363.833
01/09/2021	30/09/2021	8,327.375	8,323.300	8,323.300	21.875	22.117	22.117	8,301.183
01/10/2021	31/10/2021	14,106.750	14,101.350	14,101.350	31.500	31.993	31.993	14,069.357
01/11/2021	30/11/2021	14,336.000	14,328.430	14,328.430	5.250	5.323	5.323	14,323.107
01/12/2021	31/12/2021	14,001.750	13,994.250	13,994.250	6.125	6.930	6.930	13,987.320
Subtotal 2021		-	-	147,840.950	-	-	250.602	147,590.348
01/01/2022	31/01/2022	8,407.000	8,403.900	8,403.900	60.375	60.652	60.652	8,343.248
01/02/2022	28/02/2022	6737.5	6,734.890	6,734.890	53.375	53.462	53.462	6,681.428
01/03/2022	31/03/2022	14790.125	14,784.760	14,784.760	16.625	16.693	16.693	14,768.067
01/04/2022	30/04/2022	13525.75	13,518.360	13,518.360	12.250	13.103	13.103	13,505.257
01/05/2022	31/05/2022	9798.25	9,793.400	9,793.400	17.500	17.819	17.819	9,775.581
01/06/2022	30/06/2022	9885.75	9,881.610	9,881.610	27.125	27.181	27.181	9,854.429
01/07/2022	31/07/2022	10672.375	10,668.480	10,668.480	25.375	25.534	25.534	10,642.946
Subtotal 2022		-	-	73,785.400	-	-	214.444	73,570.956
Total		-	-	417,146.200	-	-	983.889	416,162.311

5.2 Project Emissions

As per the methodology and the registered CDM-PDD, the project emission is 0.

5.3 Leakage

As per the methodology and the registered CDM-PDD, the leakage is 0.

5.4 Net GHG Emission Reductions and Removals

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2019 (01/08/2019 to 31/12/2019)	47,524	0	0	47,524
2020 (01/01/2019 to 31/12/2020)	116,364	0	0	116,364
2021 (01/01/2021 to 31/12/2021)	124,042	0	0	124,042
2022 (01/01/2022 to 31/07/2022)	61,832	0	0	61,832
Total	349,762	0	0	349,762

Comparison of the actual emission reductions with the estimated values of this monitoring period is analysed as follows:

Annual estimated emission reductions are 104,467 tCO₂e

Total days during this monitoring period are 1096 days

Calculated estimation of the emission reductions: $104,467 * 1096 / 365 = 313,687$ tCO₂e

The actual emission reductions achieved during this monitoring period are 11.50% higher than the estimated ex-ante amount.

This would not influence the additionality of the project. According to the registered PDD, the IRR is still less than the benchmark of 8% when the net exported electricity increases 10%. The reasons for electricity increase are as follows: in this monitoring period, the wind speed is larger than the estimation in project FSR. According to the operation records, the average wind speed during the monitoring period was 9.4m/s, which is about 10.59% higher the historical average

wind speed 8.5m/s, which is the basis on which the average annual electricity generation of the project.