

GUOHUA RONGCHENG PHASE III WIND FARM PROJECT

Document Prepared By Beijing Cronus Technology Consultancy Centre

Project Title	Guohua Rongcheng Phase III Wind Farm Project
Version	2.0
1	06/05/2014
Prepared By	Ms. Trace Wang .
Contact	Beijing Cronus Technology Consultancy Centre
	Tel: +86 10 62258766

Table of Contents

1 Project Details 3

 1.1 Summary Description of the Project 3

 1.2 Sectoral Scope and Project Type 3

 1.3 Project Proponent 3

 1.4 Other Entities Involved in the Project 3

 1.5 Project Start Date 3

 1.6 Project Crediting Period 3

 1.7 Project Scale and Estimated GHG Emission Reductions or Removals 4

 1.8 Description of the Project Activity 4

 1.9 Project Location 4

 1.10 Conditions Prior to Project Initiation 4

 1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks 5

 1.12 Ownership and Other Programs 5

 1.12.1 Right of Use 5

 1.12.2 Emissions Trading Programs and Other Binding Limits 5

 1.12.3 Other Forms of Environmental Credit 5

 1.12.4 Participation under Other GHG Programs 5

 1.12.5 Projects Rejected by Other GHG Programs 5

 1.13 Additional Information Relevant to the Project 5

2 Application of Methodology 6

 2.1 Title and Reference of Methodology 6

 2.2 Applicability of Methodology 6

 2.3 Project Boundary 6

 2.4 Baseline Scenario 6

 2.5 Additionality 7

 2.6 Methodology Deviations 7

3 Quantification of GHG Emission Reductions and Removals 7

 3.1 Baseline Emissions 7

 3.2 Project Emissions 7

 3.3 Leakage 7

 3.4 Net GHG Emission Reductions and Removals 7

4 Monitoring 7

 4.1 Data and Parameters Available at Validation 7

 4.2 Data and Parameters Monitored 8

 4.3 Monitoring Plan 10

5 Environmental Impact 10

6 Stakeholder Comments 10

1 PROJECT DETAILS

1.1 Summary Description of the Project

Please refer to UNFCCC registered CDM project with Ref. No. 6580.

1.2 Sectoral Scope and Project Type

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

The Project is not a grouped project.

1.3 Project Proponent

Organization name	Guohua Resourceful (Rongcheng) Wind Power Generation Co., Ltd.
Contact person	Xuepei Feng
Title	Manager
Address	No.3 South Road of Dongzhimen, Dongcheng District, Beijing People's Republic of China
Telephone	+86-010-58151715
Email	fengxuepei@guohua.com.cn

1.4 Other Entities Involved in the Project

Organization name	DEMETER VENTURE UK LIMITED (Project Proponent)
Role in the project	VER buyer
Contact person	Tao Xue
Title	CEO
Address	CHASE BUSINESS CENTRE-CHD 39 - 41 CHASE SIDE LONDON N14 5BP
Email	taorholland@gmail.com

1.5 Project Start Date

The Project started on 25/09/2010, which is the date when the first power unit started operation.

1.6 Project Crediting Period

The Project crediting period is from 25/09/2010 to 18/07/2012 (both days included). The total crediting period is 663 days.

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

Project Scale	
Project	✓
Large project	

Year	Estimated GHG emission reductions or removals (tCO ₂ e)
Year 2010 (25/09/2010 - 31/12/2010)	24116
Year 2011 (01/01/2011 - 31/12/2011)	89823
Year 2012 (01/01/2012 - 18/07/2012)	49,218
Total estimated ERs	163,157
Total number of crediting years	663 days
Average annual ERs	89,823

1.8 Description of the Project Activity

Please refer to UNFCCC registered CDM project with Ref. No. 6580.

1.9 Project Location

The proposed project is located in Chengshan Town, Rongcheng City, Shandong Province, People's Republic of China. The coordinates of the proposed project location area are 121°11'-122°42' east longitude and 36°41'-37°35' north latitude.

1.10 Conditions Prior to Project Initiation

The goal of the project is to generate electricity by making use of wind energy. And then the electricity is delivered to the North China Power Grid (NCPG). In the absence of the project, it would have resulted in equivalent power generation from grid-connected power plants and the addition of new generation sources. Therefore, the baseline scenario of the project is identified as the equivalent electricity service would be provided by the power grid.

The Project is a renewable resource based on wind farm project without GHG emissions during operation period. Therefore, it was confirmed that the project has not been implemented to generate GHG emissions for the purpose of their subsequent reduction, removal or destruction.

1.11 Compliance with Laws, Statutes and Other Regulatory Frameworks

The Project complies with all Chinese relevant laws and regulations. It also obtained the approval letters from governmental authorities: Development and Reform Commission (DRC), as well as Environment Protection Administration (EPA) of Shandong Province. The two approvals well demonstrate that local government permits the construction of the project. Consequently, the Project is compliance with laws, status and other regulatory frameworks.

1.12 Ownership and Other Programs

1.12.1 Right of Use

The business license is the evidence for right of use. The approval of Feasibility Survey Report (FSR) and Environmental Impact Assessment (EIA) are evidences for legislative right. Besides, the power purchase agreement is the evidence for the ownership of the plant, equipment and process generating.

1.12.2 Emissions Trading Programs and Other Binding Limits

The Project has been registered as a CDM project on 19/07/2012, for which a renewable crediting period of 3×7 years started from 01/08/2012 will be used under the CDM GHG Program. Therefore, CO₂ emission reductions generated by the project during the CDM crediting period will be verified as unique CERs, but not VCUs to avoid double counting. As to the project under VCS (Version.3.4), only emission reductions achieved from 25/09/2010 - 18/07/2012 will be considered as VCUs.

1.12.3 Other Forms of Environmental Credit

The Project participants choose a clear VCS crediting period from 25/09/2010 - 18/07/2012, which has not created another form of environmental credits.

1.12.4 Participation under Other GHG Programs

The Project has been registered as a CDM project on 01/08/2012, and the registration number is 6580.

1.12.5 Projects Rejected by Other GHG Programs

N/A

1.13 Additional Information Relevant to the Project

Eligibility Criteria

N/A

Leakage Management

According to ACM0002 (Version 12.3.0) no leakage is considered.

Commercially Sensitive Information

N/A

Further Information

N/A

2 APPLICATION OF METHODOLOGY

2.1 Title and Reference of Methodology

The CDM consolidated baseline and monitoring methodology:

ACM0002 (Version 12.3.0): “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”

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

2.2 Applicability of Methodology

Please refer to UNFCCC registered CDM project with Ref No. 6580.

2.3 Project Boundary

Source		Gas	Included?	Justification/Explanation
Baseline	CO2 emission from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.	CO ₂	Yes	Main Emission Source
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
Project	Emission from reservoir of the proposed project (inside the project boundary)	CO ₂	No	According to ACM0002, the proposed project generates electricity by renewable energy, thus No GHG emissions emitted.
		CH ₄	No	According to ACM0002, the proposed project generates electricity by renewable energy, thus No GHG emissions emitted.
		N ₂ O	No	According to ACM0002, the proposed project generates electricity by renewable energy, thus No GHG emissions emitted.

2.4 Baseline Scenario

Please refer to UNFCCC registered CDM project with Ref No. 6580.

2.5 Additionality

Please refer to UNFCCC registered CDM project with Ref No. 6580.

2.6 Methodology Deviations

N/A

3 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.1 Baseline Emissions

Please refer to UNFCCC registered CDM project with Ref No. 6580.

3.2 Project Emissions

Please refer to UNFCCC registered CDM project with Ref No. 6580.

3.3 Leakage

Please refer to UNFCCC registered CDM project with Ref No. 6580.

3.4 Net GHG Emission Reductions and Removals

Year	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
Year 2010	24,116	0	0	24,116
Year 2011	89,823	0	0	89,823
Year 2012	49,218	0	0	49,218
Total	163,157	0	0	163,157

4 MONITORING

4.1 Data and Parameters Available at Validation

Data / Parameter	EF _{grid,CM,y}
Data unit	tCO ₂ /MWh
Description	The combined margin emission factor of NCPG
Source of data	The registered PDD of the project
Value applied:	0.895875
Justification of choice of data or description of measurement	Official and authoritative statistics

methods and procedures applied	
Purpose of Data	Calculation of baseline emission
Comments	N/A

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{facility, y}$
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	Calculated based on the data of $EG_{out, y}$, $EG_{in, y}$ and $EG_{backup, y}$
Description of measurement methods and procedures to be applied	$EG_{facility, y}$ equals to electricity delivered to the NCPG by the proposed project in year y ($EG_{out, y}$) minus the electricity consumed by the proposed project which is imported from the NCPG through the main line ($EG_{in, y}$) and the electricity consumed by the proposed project which is imported from the NCPG through the backup line ($EG_{backup, y}$). The data will be measured continuously, recorded monthly
Frequency of monitoring/recording	Monitoring continuously and recording monthly
Value monitored:	100,263MWh
Monitoring equipment	Monitored by bidirectional electricity meter (electronic)
QA/QC procedures to be applied	The data of $EG_{out, y}$, $EG_{in, y}$ and $EG_{backup, y}$ will be double checked by receipt of sales or relevant commercial data.
Purpose of the data	Calculation of baseline emission
Calculation method	$EG_{facility, y} = EG_{out, y} - EG_{in, y} - EG_{backup, y}$
Comments	-

Data / Parameter	$EG_{out, y}$
Data unit	MWh/yr
Description	Electricity generation supplied to the NCPG by the proposed project in year y .
Source of data	Measured by electricity meter on the project site.
Description of measurement methods and procedures to be applied	The electricity delivered to NCPG by the proposed project in the year y will be monitored and measured by meter installed in the project site. The readings of electricity meter will be continuously measured and monthly recorded.
Frequency of monitoring/recording	Monitoring continuously and recording monthly
Value monitored:	100,263MWh
Monitoring equipment	Monitored by bidirectional electricity meter (electronic)

	Serial number: 10030265270079 (M1) Accuracy: 0.5
QA/QC procedures to be applied	According to the national standard, the meter will be calibrated annually. Cross check measurement results with records for sold electricity
Purpose of the data	Calculation of baseline emission
Calculation method	-
Comments	-

Data / Parameter	$EG_{in\ y}$
Data unit	MWh/yr
Description	Electricity consumed by the proposed project which is imported from the NCPG through the main line in the year <i>y</i> .
Source of data	Measured by electricity meter on the project site.
Description of measurement methods and procedures to be applied	The electricity consumed by the proposed project which is imported from the NCPG at the main line in the year <i>y</i> will be monitored and measured by meter installed in the project site. The readings of electricity meter will be continuously measured and monthly recorded.
Frequency of monitoring/recording	Monitoring continuously and recording monthly
Value monitored:	0
Monitoring equipment	Monitored by bidirectional electricity meter (electronic)
QA/QC procedures to be applied	According to the national standard, the meter will be calibrated annually. Cross check measurement results with records for bought electricity
Purpose of the data	Calculation of baseline emission
Calculation method	-
Comments	-

Data / Parameter	$EG_{backup,y}$
Data unit	MWh/yr
Description	The electricity consumed by the proposed project which is imported from the backup line.
Source of data	Measured by electricity meter on the project site.
Description of measurement methods and procedures to be applied	The electricity consumed by the proposed project which is imported from the NCPG at the backup line in the year <i>y</i> will be monitored and measured by meter installed in the project site. The readings of electricity meter will be continuously measured and monthly recorded.

Frequency of monitoring/recording	Monitoring continuously and recording monthly
Value monitored:	0
Monitoring equipment	Monitored by bidirectional electricity meter (electronic)
QA/QC procedures to be applied	According to the national standard, the meter will be calibrated annually. Cross check measurement results with records for bought electricity
Purpose of the data	Calculation of baseline emission
Calculation method	-
Comments	-

4.3 Monitoring Plan

Please refer to UNFCCC registered CDM project with Ref No. 6580.

5 ENVIRONMENTAL IMPACT

Please refer to UNFCCC registered CDM project with Ref No. 6580.

6 STAKEHOLDER COMMENTS

Please refer to UNFCCC registered CDM project with Ref No. 6580.