

Honiton Energy (Baotou) Co., Ltd

GS-VER MONITORING REPORT

Honiton Energy Bailingmiao Phase one Wind Farm Project

Project ID: GS 449

2nd Verification

2nd Monitoring Period:

Start date: *1st May 2009*

End date: *31th December 2011*

Version 2

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1 Introduction

This Monitoring Report summarizes the operation of Honiton Energy Bailingmiao Phase one Wind Farm Project and calculates the emission reductions achieved by the project activity during the period covered by this report. This report serves as the basis for the verification of these reductions and issuance of the GS-VERs

During this monitoring period, the project activity delivered net electricity of 159,730.93MWh to North China Power Grid (NCPG) and has achieved emission reductions of 168,484 t CO₂e.

The accumulated emission reductions achieved by this project is summarized in the following table.

Table 1 Accumulated Emission Reduction

Honiton Energy Bailingmiao Phase one Wind Farm Project: Emission Reduction								
Monitoring period			Electricity Exported $E_{out,y}$	Electricity Imported $E_{in,y}$	Electricity Imported through backup line $E_{backup,y}$	Net Electricity delivered to Grid MWh	EF tCO ₂ /MWh	Emission Reduction tCO ₂
Year	Dates		MWh	MWh	MWh			
	From	To	A	B	C	D=A-B-C	E	F=D*E
2009	1-May-09	31-Dec-09	89,722.90	259.63	17.67	89,445.60	1.0548	94,347.22
2010	1-Jan-10	31-Dec-10	20,776.53	1,628.19	338.15	18,810.19	1.0548	19,840.99
2011	1-Jan-11	31-Dec-11	52,453.05	501.69	476.21	51,475.14	1.0548	54,295.98
Total			162,952.48	2,389.52	832.03	159,730.93		168,484.19

2 General Project Activity Information

2.1 Title of the Project Activity

Honiton Energy Bailingmiao Phase one Wind Farm Project

2.2 Project Category

The project falls into category A.1. - Renewable Energy, according to the Gold Standard VER Project Developer's Manual.

2.3 Crediting period

Crediting start date: 7th January 2008

VERs first crediting period: 7 years

2.4 Geographic Location

Honiton Energy Bailingmiao Phase one Wind Farm Project lies 30km to the northwest of Bailingmiao Town, Damao County, Baotou City, Inner Mongolia Autonomous Region of People's Republic of China. It is located at longitude 110°12'52"East and latitude 41°51'39"North. The average altitude of the project site is about 1400m above sea level. Figure 1 shows respectively the location of Inner Mongolia in China and the project site within the map of Inner Mongolia Autonomous Region.

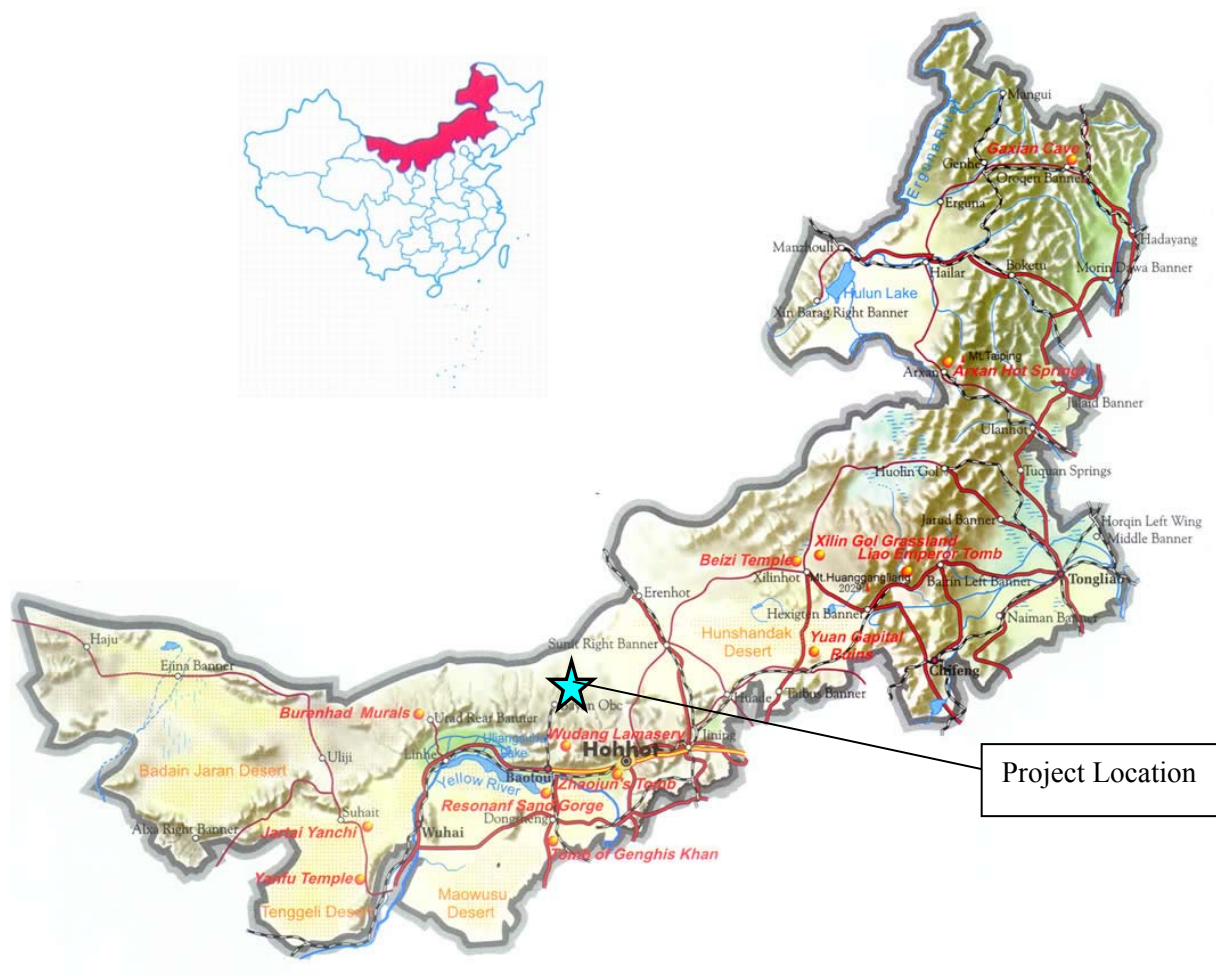


Fig.1. Map of project area

2.5 Short Description of the Project Activity

Honiton Energy (Baotou) Co., Ltd, a subsidiary of Honiton Energy Limited. (Hereafter referred as Honiton) has developed a wind farm power project called Bailingmiao Phase One Wind Farm Power Generation Project, in Inner Mongolia, P.R. China. The purpose of the Project is to generate renewable electricity utilizing wind power and to feed in to the NCPG. The project reduces greenhouse gas (GHG) emissions and is being undertaken as a Verified Emission Reduction (VER) project for the voluntary carbon market. The revenue from the sale of VERs strengthens the project cash flow and enables the project to be successfully implemented. Because of the project's anticipated benefits in terms of GHG emission reduction and sustainable development indicators, this project is expected to fulfil the requirements of the Gold Standard.

Name of Party involved (*)((host) indicates a host Party)	Private and/or public entity(ies) project participants(*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
P.R. China (host)	Honiton Energy (Baotou) Co., Ltd.	No
United Kingdom of England and Northern Ireland	CAMCO International Ltd.	No

The project assists China in developing its wind power generation potential, and the emerging market for grid-connected renewable energy technology. The project therefore helps to reduce GHG emissions versus the high-growth, coal-dominated business-as-usual scenario. The project also improves air quality and local livelihoods and promotes sustainable renewable energy industry development. The specific goals of the project are to:

- generate clean electricity;
- reduce CO₂, SO₂ and NO_x emissions
- help to stimulate the growth of the wind power industry in China;
- create local employment opportunity during the assembly and installation of wind turbines, and for operation of the project;
- reduce greenhouse gas emission in China compared to the business-as-usual scenario;
- act as a good corporate citizen by investing in the local community where the project is located.

2.6 Methodology Applied to the Project Activity

The methodology applied to the Project is “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” ACM0002 (version7) (http://cdm.unfccc.int/filestorage/C/D/M/CDMWF_AM_323M30IDF1IH6AG3GRCJ4PKR9CKM7P/ACM0002_ver07.pdf?t=MIV8bTJrZHBkfDBN2zpCu9oWBRBCN5oKvfgP).

The “tool to calculate the emission factor for an electricity system” (version 01.1) was referenced in ACM0002 ver. 07.

2.7 Actual Project Implementation

2.7.1 Project construction

The project consists 40 sets of 1250kw Suzlon turbines, with a potential total installed capacity of up to 50MW. The project’s net electricity production is expected to be 110.9 GWh per year, offsetting an equivalent amount that would be otherwise supplied by the NCPG. A 32km 220kV transmission line is built to connect the wind farm to 220kV Hongta substation.

For some uncertain reasons, the wind farm was shut down by local grid from April 2010 to March 2011, during this period, there are no electricity was generated and emission reduction. There is no impact to the operation mode and social-environmental contributions of the project.

2.7.2 Project milestones

Table 2 Project Milestones

Time	Project Implementation Activities	Carbon Financing Application Activities
2005.04	EIA report finished	
2005.05	EIA approval obtained	
2006.06	FSR was finished with a total investment of 501.23 million RMB with Carbon Revenues included.	
2006.07		Began negotiating with CDM development and began writing CDM-PDD
2006.08	Won the bidding of developing the proposed project with a tariff of	

	0.548RMB/KWh within 30000h	
2006.10		CDM-PDD was completed and Contacted CAMCO (The emails are submitted to DOE)
2007.01		First round of stakeholder consultation undertaken
2007.04	FSR approval obtained	
2007.04	Began construction	
2007.05	Turbine Contract Signed	
2007.07	Adjusted FSR was finished with a total investment of 551.33 million RMB	
2007.09		CADA signed with CAMCO to develop this project as GS-VER project
2007.09		Documents Submitted to GS-TAC for pre-assessment
2007.11	Adjusted FSR approval obtained	
2007.11		Got Confirmation from GS-TAC that the proposed project can apply retroactive GS as a VER project provided that all the points mentioned in the pre-assessment outcome are undertaken.
2008.01	Project began Operational	
2008.01		Contract signed with SGS, GS-PDD was on SGS website for two months global stakeholder consulting.
2008.01		Second round of stakeholder consultation undertaken according to GS requirements
2008.06	Validation and Verification site visit of this project undertaken	Validation and Verification site visit of this project undertaken

3 Monitoring plan and project monitoring

This section describes the implementation of the monitoring plan and the monitored data for this verification period.

3.1 Monitoring Methodology and Plan

Data to be monitored for baseline

The project has implemented the monitoring methodology of “Consolidated baseline and monitoring methodology for grid-connected electricity generation from renewable sources” ACM0002 (version7). According to the methodology and GS-PDD, the parameters monitored by this project are listed in the following tables:

Table 3 Data to be monitored

ID number	Data variable	Source of data	data unit	Measured (m), calculated (c) or estimated (e)	Recording frequency	Proportion of data to be monitored	How will the data be archived? (electronic/ paper)	Comment
ID8.	$E_{out,y}$: The electricity supplied to the North China Power Grid by the proposed project	Electricity Meter	MWh	m	Hourly measurement and monthly recording	100%	Electronic and paper	The data was taken from the monthly meter readings in Honiton Bailingmiao Phase One Plant 220kv line. After Honiton Energy Bailingmiao Phase Two Wind Farm Project delivered electricity to North China Power Grid, the data was taken from the monthly meter readings in 35kv lines. Sales receipts are used for double check. Used to calculate the net electricity supplied to the grid by the project. This is in compliance with ACM0002 and conservative.
ID9	$E_{in,y}$: The electricity purchased from the North China Power Grid	Electricity Meter	MWh	m	Hourly measurement and monthly recording	100%	Electronic and paper	The data was taken from the monthly meter readings in Honiton Bailingmiao Phase One Plant 220kv line. After Honiton Energy Bailingmiao Phase Two Wind Farm Project delivered electricity to North China Power Grid, the data was taken from the monthly meter readings in 35kv lines. Invoice are used for double check.

								Used to calculate the net electricity supplied to the grid by the project. This is in compliance with ACM0002 and conservative.
ID10	$E_{\text{backup},y}$ The electricity purchased from the grid through the 10kV line	Electricity Meter	MWh	m	Hourly measurement and monthly recording	100%	Electronic and paper	The 10KV backup power supply is available in site and the amount of electricity imported through this line is checked by the invoice. Used to calculate the net electricity supplied to the grid by the project. This is in compliance with ACM0002 and conservative.

Data to be monitored for emissions and/or removals occurring within the project boundary during the crediting period:

Not applicable.

Data to be monitored for leakage:

Not applicable.

Data to be monitored for environmental impacts

Not applicable.

Data to be collected for key SD indicators

As required by the Gold Standard, for the sustainable development, the change to the following key SD indicators need to be monitored:

Table 4 Data to be collected for key SD indicators

ID number	Sustainable Development Parameter	Data type	Data variable	Data unit	Measured (m), calculated (c) or estimated (e)
ID1	Employment (number)		Number of new jobs created by the project		M; Monitored by the salary payment sheet annually. The employees can be consulted to confirm employment numbers
ID2	Employment (quality)		Qualitative value of the employment		M; Monitored by Training records and the welfare benefits (eg, like the healthcare insurance and housing allowance) obtained for the employees annually. The employees can be consulted to confirm

					<i>their salaries and benefits.</i>
<i>ID3</i>	<i>Soil Condition</i>		<i>The remediation measures taken and the outcome produced</i>		<i>M;</i> <i>Monitored by independent institute or consulting company's report in which the remediation measures taken and outcome produced for the area surrounding the excavation will be discussed</i> <i>This parameter will be monitored annually until the project has obtained the final acceptance on environment protection issued by the local authorities (Normally the local Environmental Protection Bureau) officially which means that the remediation outcome is satisfactory and accepted and thus the monitoring of this parameter is finished.</i> <i>The report and the final acceptance are all third party evidence.</i>
<i>ID4</i>	<i>Human and institutional capacity</i>		<i>Number of English teachers provided by the project owner and how many children get benefit from this</i>		<i>M;</i> <i>Monitored by contract between Honiton and the Teacher and salary payment sheet and the attendance or the roll-call list of the children annually (if the teacher is successfully recruited in the monitoring year).</i> <i>The monitoring can be cross checked with the salary payment sheet of the English teachers.</i>
<i>ID5</i>	<i>Water quality</i>		<i>Whether the waste caused by personnel is properly treated</i>		<i>M:</i> <i>Checked by independent institute or consulting company whether the waster water treatment facility is on site and in operation.</i> <i>Independent institute or consulting company to monitor the quality of the effluent, eg: the COD value.</i> <i>As the water quality is not an issue raised in the EIA and to cut unnecessary costs for this financially unattractive project, this parameter will only be monitored for the first verification as long as the monitoring data shows that water quality is below relevant nation standards. If the water quality is above the national standards, then this parameter will continue to be monitored.</i> <i>The water quality will be monitored by an independent institute or consulting company.</i>
<i>ID6</i>	<i>Noise Pollution</i>		<i>Whether the project will generate Noise that is above the national standards</i>		<i>M;</i> <i>Independent institute or consulting company to monitor the noise level when the proposed project is in full operation.</i> <i>As the noise is not an issue raised in the EIA</i>

				<i>and to cut unnecessary costs for this financially unattractive project, this parameter will only be monitored for the first verification as long as the monitoring data shows that the noise level is below relevant nation standards. If the noise level is above the national standards, then this parameter will continue to be monitored.</i> <i>The noise level will be monitored by an independent institute or consulting company.</i>
ID7	Grassland owner compensation fees		Whether the project owner has paid the compensation fees to the Grassland owner whose grassland are taken by the project	M; Receipts of the compensation fees can be checked. When it is verified that all the compensation fees have been paid to the individuals for the loss of their grazing land, the monitoring of this parameter is finished; The Grassland owner can be consulted for the payment compensation fee as the compensation is paid directly to the grassland owner.

3.2 Monitoring activities

3.2.1 Monitoring systems

Electricity supplied to the grid by the project (EGy)

The project is connected to NCPG via a 220 kV line. Via this line, the project can export electricity to and import electricity from NCPG.

Before May 2011, the main meter installed at Honiton Bailingmiao Phase One Plant 220kV line was used to measure the power exported to ($E_{out, y}$) and imported from ($E_{in, y}$) NCPG. In May 2011, Honiton Bailingmiao Phase Two started to operate. The proposed project shares the transformer with Honiton Bailingmiao Phase Two Plant. So the power exported from ($E_{out, y}$) and imported to ($E_{in, y}$) the proposed project is measured by the 35KV site meter M3. All the meters are bi-directional meters with an accuracy grade of 0.2S.

The data of electricity supplied to NCPG and purchased from NCPG is cross-checked by the receipts from the grid.

In addition to this main interconnection line, a 10 kV backup power supply is available at site. The project can only import electricity ($E_{backup, y}$) via this backup line in case the 220 kV is not available. The meter M_{backup} is shared by the two projects, part of the electricity measured by M_{backup} is consumed by the proposed project. For conservative considering, when calculating the net electricity of the proposed project, all the electricity measured by M_{backup} is subtracted.

As a conservative way, the net electricity is used to calculate the emission reduction, using the three metered parameters, the net electricity can be obtained as follows:

$$EG_y = E_{out,y} - E_{in,y} - E_{backup,y}$$

Where,

EG_y The net electricity generation of the project in MWh

$E_{out,y}$ The electricity export to the grid by the project via 220/35 KV line in MWh

$E_{in,y}$ The electricity imported from grid via 220/35 kV line in MWh

$E_{backup,y}$ The electricity imported via 10 kV backup line in MWh

Key SD indicators

The data are based on the relevant documents provided by the project owner.

3.2.2 Deviation of Monitoring Activities

Procedures described in the GS-PDD monitoring plan have been followed. No deviation is reported during this monitoring period.

3.3 Monitoring results

Data monitored for $E_{out,y}$ of baseline emissions

Table 5 Data Monitored for E_{out, y} of Baseline Emissions

Month	Date		Electricity supply to the NCPG (MWh)					
	From	To			Monitored Data A	Adjust Monitored Data	Data from Grid C	Data or calculation emission reduction D=MIN(B,C)
			Start	End		From May 2009 to May 2010, and from Jul 2011 to Dec 2011, B=A From Jun 2010 to Jun 2011, B=A*(1-0.002)		
May/09	1/May	31/May	139,758.77	153,591.14	13,832.37	13,832.37	13,736.73	13,736.73
June/09	1/Jun	30/Jun	153,591.14	164,774.21	11,183.07	11,183.07	11,107.79	11,107.79
July/09	1/Jul	31/Jul	164,774.21	172,218.85	7,444.64	7,444.64	7,193.92	7,193.92
August/09	1/Aug	31/Aug	172,218.85	180,932.61	8,713.76	8,713.76	8,648.30	8,648.30
September/09	1/Sep	30/Sep	180,932.61	191,745.00	10,812.39	10,812.39	10,747.35	10,747.35
October/09	1/Oct	31/Oct	191,745.00	204,226.17	12,481.17	12,481.17	12,395.53	12,395.53
November/09	1/Nov	30/Nov	204,226.17	217,050.89	12,824.72	12,824.72	12,931.88	12,824.72
December/09	1/Dec	31/Dec	217,050.89	230,200.31	13,149.42	13,149.42	13,068.56	13,068.56
January/10	1/Jan	31/Jan	230,200.31	243079.83	12,879.52	12,879.52	12,768.51	12,768.51
February/10	1/Feb	28/Feb	243079.83	245277.03	2,197.20	2,197.20	2,182.26	2,182.26
March/10	1/Mar	31/Mar	245277.03	251156.36	5,879.33	5,879.33	5,825.76	5,825.76
April/10	1/Apr	30/Apr	251156.36	251156.36	0.00	0.00	0.00	0.00
May/10	1/May	31/May	251156.36	251156.36	0.00	0.00	0.00	0.00
June/10	1/Jun	30/Jun	251156.36	251156.36	0.00	0.00	0.00	0.00
July/10	1/Jul	31/Jul	251156.36	251156.36	0.00	0.00	0.00	0.00
August/10	1/Aug	31/Aug	251156.36	251156.36	0.00	0.00	0.00	0.00
September/10	1/Sep	30/Sep	251156.36	251156.36	0.00	0.00	0.00	0.00
October/10	1/Oct	31/Oct	251156.36	251156.36	0.00	0.00	0.00	0.00
November/10	1/Nov	30/Nov	251156.36	251156.36	0.00	0.00	0.00	0.00
December/10	1/Dec	31/Dec	251156.36	251156.36	0.00	0.00	0.00	0.00
January/11	1/Jan	31/Jan	251,156.36	251,156.36	0.00	0.00	0.00	0.00
February/11	1/Feb	28/Feb	251156.36	251,156.36	0.00	0.00	0.00	0.00
March/11	1/Mar	31/Mar	251156.36	251,156.36	0.00	0.00	0.00	0.00
April/11	1/Apr	30/Apr	251156.36	251,198.20	41.84	41.76	41.23	41.23
May/11	1/May	31/May	48187.35	53,979.42	5,792.07	5,780.49	5,682.13	5,682.13
June/11	1/Jun	30/Jun	53979.42	60,999.38	7,019.96	7,005.92	6,915.10	6,915.10
July/11	1/Jul	31/Jul	60999.38	66,083.32	5,083.94	5,083.94	5,427.05	5,083.94
August/11	1/Aug	31/Aug	66083.32	74,085.95	8,002.63	8,002.63	7,419.30	7,419.30
September/11	1/Sep	30/Sep	74085.95	79,704.39	5,618.44	5,618.44	5,547.34	5,547.34
November/11	1/Oct	31/Oct	79704.39	89,481.29	9,776.90	9,776.90	9,659.09	9,659.09
November/11	1/Nov	30/Nov	89481.29	95,053.48	5,572.19	5,572.19	5,466.13	5,466.13
December/11	1/Dec	31/Dec	95053.48	101,866.01	6812.53	6,812.53	6638.78	6,638.78
sum					165,118.09	165,092.38	163,402.74	162,952.48

Notes:

1. Before May 2011, the Meter Readings were from the 220KV line meter at Honiton Bailingmiao Phase One Plant. From May 2011, the Meter Readings were from the 35KV site meter at Honiton Bailingmiao Phase One Plant. The sale receipts are provided by the grid. The minimum value between the monthly Meter Reading and the sale receipt of electricity exported is chosen to calculate the ERs.

2. From 23th June 2010 to 14th December 2011, the meter (M1) installed on the 220KV line had not been calibrated. The 35KV site meter (M3) was calibrated on 28th June 2011. Honiton Bailingmiao

Phase Two Plant started to operate in May 2011. For conservative considering, the data is adjusted as follow:

- i. From May 2009 to May 2010 and from July 2011 to December 2011:
 $E_{out,y}$ = data monitored by M1(or M3).
- ii. From June 2010 to June 2011:
 $E_{out,y}$ = data monitored by M1(or M3) * (1 - 0.002).

Data monitored for $E_{in,y}$ of baseline emissions

Table 6 Data monitored for $E_{in,y}$ of baseline emissions

Month	Date		Electricity consumed from the NCPG (MWh)					
	From	To			Monitored Data A	Adjust Monitored Data B	Data from Grid C	Data or calculation emission reduction D=MAX(B,C)
			Start	End		From May 2009 to May 2010, and from Jul 2011 to Dec 2011, B=A From Jun 2010 to Jun 2011, B=A*(1+0.002)		
May/09	1/May	31/May	670.69	685.34	14.65	14.65	14.09	14.65
August/09	1/Aug	31/Aug	722.11	757.52	35.41	35.41	30.18	35.41
September/09	1/Sep	30/Sep	757.52	774.39	16.87	16.87	19.92	19.92
October/09	1/Oct	31/Oct	774.39	804.18	29.79	29.79	26.40	29.79
November/09	1/Nov	30/Nov	804.18	836.17	31.99	31.99	25.41	31.99
December/09	1/Dec	31/Dec	836.17	897.55	61.38	61.38	85.16	85.16
January/10	1/Jan	31/Jan	897.55	999.74	102.19	102.19	110.22	110.22
February/10	1/Feb	28/Feb	999.74	1,276.67	276.93	276.93	161.68	276.93
March/10	1/Mar	31/Mar	1276.67	1,669.45	392.78	392.78	329.33	392.78
April/10	1/Apr	30/Apr	1669.45	2,173.32	503.87	503.87	0.00	503.87
May/10	1/May	31/May	2173.32	2,510.29	336.97	336.97	0.00	336.97
June/10	1/Jun	30/Jun	2510.29	2,517.70	7.41	7.42	0.00	7.42
July/10	1/Jul	31/Jul	2517.7	2,517.70	0.00	0.00	0.00	0.00
August/10	1/Aug	31/Aug	2517.7	2,517.70	0.00	0.00	0.00	0.00
September/10	1/Sep	30/Sep	2517.7	2,517.70	0.00	0.00	0.00	0.00
October/10	1/Oct	31/Oct	2517.7	2,517.70	0.00	0.00	0.00	0.00
November/10	1/Nov	30/Nov	2517.7	2,517.70	0.00	0.00	0.00	0.00
December/10	1/Dec	31/Dec	2517.7	2,517.70	0.00	0.00	0.00	0.00
January/11	1/Jan	31/Jan	2517.7	2517.70	0.00	0.00	0.00	0.00
February/11	1/Feb	28/Feb	2517.70	2517.70	0.00	0.00	0.00	0.00
March/11	1/Mar	31/Mar	2517.70	2517.70	0.00	0.00	0.00	0.00
April/11	1/Apr	30/Apr	2517.70	2538.36	20.66	20.70	0.00	20.70
May/11	1/May	31/May	953.90	982.67	28.77	28.83	57.88	57.88
June/11	1/Jun	30/Jun	982.67	993.90	11.23	11.25	17.66	17.66
July/11	1/Jul	31/Jul	993.90	1022.30	28.40	28.40	42.94	42.94
August/11	1/Aug	31/Aug	1022.30	1046.01	23.71	23.71	80.62	80.62
September/11	1/Sep	30/Sep	1046.01	1079.76	33.75	33.75	46.01	46.01
October/11	1/Oct	31/Oct	1079.76	1099.41	19.65	19.65	54.80	54.80
November/11	1/Nov	30/Nov	1099.41	1158.41	59.00	59.00	70.23	70.23
December/11	1/Dec	31/Dec	1158.41	1192.62	34.21	34.21	110.85	110.85
sum					2,106.39	2,106.53	1,326.09	2,389.52

Notes:

1. The Meter Readings were from the 220KV meter M1 at Honiton Bailingmiao Plant. The invoices are provided by the grid. The maximum value between the monthly Meter Reading and the invoices of electricity imported is chosen to calculate the ERs.

2. From the phase two was put into used, part of the electricity measured by M1 is consumed by the project. For conservative considering, when calculating the net electricity of the project, all the electricity measured by M1 is subtracted.

3. From 23th June 2010 to 14th December 2011, the meter (M1) installed on the 220KV line had not been calibrated. The 35KV site meter (M3) was calibrated on 28th June 2011. Honiton Bailingmiao Phase Two Plant started to operate in May 2011. For conservative considering, the data is adjusted as follow:

i. From May 2009 to May 2010 and from July 2011 to December 2011:

$E_{in,y}$ = data monitored by M1(or M3).

ii. From June 2010 to June 2011:

$E_{in,y}$ = data monitored by M1(or M3) * (1 + 0.002).

Data monitored for $E_{backup,y}$ of baseline emissions

Table 7 Data monitored for $E_{backup,y}$ of baseline emissions

Month	Date		Electricity consumed from the NCPG via 10kV backup line (MWh)					
	From	To			Monitored Data A	Adjust Monitored Data	Data from Grid C	Data or calculation emission reduction D=MAX(B,C)
			Start	End		From May 2009 to Jun 2011, B=A*(1+0.01) From Jul 2011 to Dec 2011, B=A		
May/09	1/May	31/May	10.50	10.50	0.00	0.00	0.00	0.00
June/09	1/Jun	30/Jun	10.50	10.58	0.12	0.12	12.79	12.79
July/09	1/Jul	31/Jul	10.58	11.40	1.24	1.25	0.00	1.25
August/09	1/Aug	31/Aug	11.40	11.40	0.00	0.00	0.00	0.00
September/09	1/Sep	30/Sep	11.40	11.45	0.08	0.08	0.00	0.08
October/09	1/Oct	31/Oct	11.45	13.80	3.56	3.60	0.00	3.60
November/09	1/Nov	30/Nov	13.80	13.80	0.00	0.00	0.00	0.00
December/09	1/Dec	31/Dec	13.80	13.80	0.00	0.00	0.00	0.00
January/10	1/Jan	31/Jan	13.80	13.80	0.00	0.00	0.00	0.00
February/10	1/Feb	28/Feb	13.80	13.80	0.00	0.00	0.00	0.00
March/10	1/Mar	31/Mar	13.80	13.80	0.00	0.00	0.00	0.00
April/10	1/Apr	30/Apr	13.80	14.35	0.83	0.84	0.00	0.84
May/10	1/May	31/May	14.35	14.40	0.08	0.08	0.00	0.08
June/10	1/Jun	30/Jun	14.40	23.70	14.09	14.23	0.00	14.23
July/10	1/Jul	31/Jul	23.70	32.70	13.64	13.77	0.00	13.77
August/10	1/Aug	31/Aug	32.70	39.30	10.00	10.10	0.00	10.10
September/10	1/Sep	30/Sep	39.30	50.00	16.21	16.37	0.00	16.37
October/10	1/Oct	31/Oct	50.00	93.10	65.30	65.95	0.00	65.95
November/10	1/Nov	30/Nov	93.10	152.00	89.23	90.13	0.00	90.13
December/10	1/Dec	31/Dec	152.00	237.00	128.78	130.06	0.00	130.06
January/11	1/Jan	31/Jan	237.00	324.40	132.41	133.74	120.00	133.74
February/11	1/Feb	28/Feb	324.40	391.80	102.11	103.13	120.00	120.00
March/11	1/Mar	31/Mar	391.80	456.90	98.63	99.61	145.50	145.50
April/11	1/Apr	30/Apr	456.90	492.60	54.09	54.63	75.00	75.00
May/11	1/May	31/May	492.60	492.60	0.00	0.00	1.50	1.50
June/11	1/Jun	30/Jun	492.60	492.80	0.30	0.31	0.00	0.31
July/11	1/Jul	31/Jul	492.80	492.80	0.00	0.00	1.50	1.50
August/11	1/Aug	31/Aug	492.80	492.80	0.00	0.00	0.00	0.00
September/11	1/Sep	30/Sep	492.80	492.80	0.00	0.00	0.00	0.00
November/11	1/Oct	31/Oct	492.80	492.80	0.00	0.00	0.00	0.00
November/11	1/Nov	30/Nov	492.80	492.80	0.00	0.00	0.00	0.00
December/11	1/Dec	31/Dec	492.80	492.80	0.00	0.00	0.00	0.00
sum					730.68	737.99	476.29	836.79

Notes:

1. The sale receipts are based on the meter reading recorded by a branch of the grid company with an irregular meter reading and recording frequency. The maximum value between the monthly Meter Reading and the sale receipt is chosen to calculate the ERs.

2. The meter M_{backup} installed at 10KV line had not been calibrated before 30th June 2011 in this monitoring period. For conservative considering, the data is adjusted as follow:

i. From May 2009 to June 2011:

$$E_{\text{backup},y} = \text{data monitored by } M_{\text{backup}} * (1+0.01).$$

- ii. From July 2011 to December 2011:
 $E_{\text{backup},y}$ = data monitored by M_{backup} .

Therefore, during the monitoring period from 1 May 2009 to 31 Dec 2011, the volume of electricity exported to the grid by the proposed project ($E_{\text{out},y}$) is 162,952.48MWh, the volume of electricity imported from the grid to the proposed project ($E_{\text{in},y}$) is 2,389.52MWh and the volume of electricity imported via the 10 kV back-up line ($E_{\text{backup},y}$) is 832.03MWh. The net electricity (EG_y) is 159,730.93MWh.

Data monitored for key SD indicators

Table 8 Data monitored for key SD indicators

Indications	Current status of the parameter	Score in this Monitoring Period	PROVIDE explanation and source
Employment (numbers)	The project has already hired 18 employees.	1	18 employees have been employed. There are 18 employees on site, there are 10 employees in their Beijing office that take charge of the 3 wind farms, thus the total employee should more than 20 in this project. Source: salary payment list
Employment quality	The on-site staffs have obtained a series of training on technical and health and safety since 2007	2	The staff has accepted a series of training on technical and health and safety. Refer to the following table for detail. Source: training records
Soil Condition	During construction phase, The wind turbine assembly area was minimized in an organized manner. The transportation vehicles used the traffic lane allowed strictly. After construction, the cable ditch and the foundation places were recovered and refilled with soft typed soil and some of the grass was grown again in some of the recovered power cable ditches and refilled ground in foundation places closed the tower. In addition, the local households were organized by the project developer to remediate the grassland. So that the remediation activity did not only benefit the environment directly but also strengthen the environment protection sense of local people and contribute to the local society living standard simultaneously.	0	The local authorities checked and accepted the soil project during construction and gave positive comments on what Honiton has done to protect the soil. In March 2009, third party witnesses that there is grass grown up on the refilled ground, and it is expected that in few years the land cover will be back normal. Source: Project Owner, local authorities and third party report

Human and institutional capacity	The Charity English program has been established by Honiton and one qualified English teacher has been hired by Honiton to provide free English course to the students at Damaoqi Mongolian school. Moreover one physics teacher was also employed in local school to support the local education development	2	Honiton has contacted Baotou Damaoqi Education Bureau and Damoqi Mongolian School actively. Honiton has already provided funds to hire a qualified English teacher and a Physics teacher for Damaoqi Mongolian school. Thereafter, students in Damaoqi Mongolian School have had free English and Physics Course provided by Honiton. Source: contract between Honiton with the teacher, roll list and the salary payment,
Water quality	The daily domestic wastewater is from the living activities of on-site staffs, with an amount about 1-2 tons per day. At the site, there is a Three-Compartment wastewater treatment facility (WWT), with a daily treatment capacity of 10 m ³ , was installed and in operation. The toilets and kitchen washing drain are connected to this wastewater treatment facility.	0	The SS CODcr and BOD5 in BLM wind farm (detail please refer to report issued by Lvjie environment company authorized by Inner Mongolia Quality Technique Supervision) which comply with Chinese standard GB8978-1996. Source: third party report
Noise Pollution	If to hear the noise from operational generators both in a distance and just under the generator, no noise can be recognized in a 50 meters distance for example, and some noise from the generator can only be heard when just standing under the tower.	0	The max noise in BLM wind farm is 47.5dB (detail please refer to report issued by Lvjie environment company authorized by Inner Mongolia Quality Technique Supervision) which comply with Chinese standard GB12348-90. Source: third party report
Grassland owner compensation fees	All the compensation for the local farmers has been paid by the project developer by the end of January 2008.	0	The compensation for the local farmer had been finished in the last monitoring period. Source: contract on compensation fees

Training courses held in Honiton Baillingmiao Phase One Plant.

Table 9 Training courses

Courses Name	Provider	From	To
Substation Training	Honiton	March 9, 2011	March 12, 2011
Technical Supervision on Electrical system	Inner Mongolia Institute of Science & Technology	August 29, 2011	September 1, 2011
Turbine technology and Maintenance	Suzlon	December 26, 2011	December 30, 2011

According to the monitoring result, the key SD indicators are unchanged.

4 PROJECT MANAGEMENT AND QA/QC

4.1 Project Management

The procedures have been set up by the Honiton Energy (Baotou) Co., Ltd. to ensure the operation of the project complies with the Gold standard, methodology and GS-PDD requirements.

The management structure of the project is shown in the following chart.

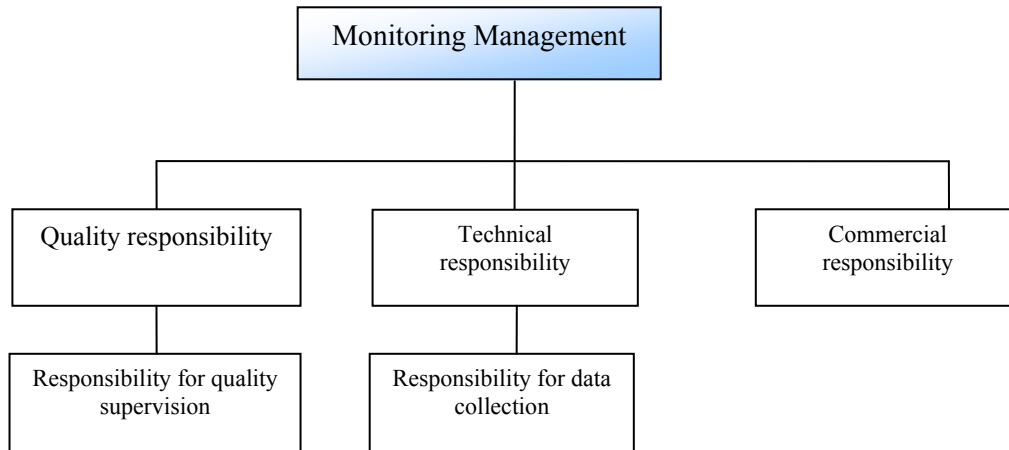


Figure 2 Organization chart of GS-VER project management

4.2 Roles and Responsibilities

The person with overall responsibility for GS-VER is the Project Officer. The procedures for the GS-VER Management were outlined in the GS-VER Monitoring Plan.

4.3 Training

Before the operation of the project, the GS-VER project officer and all relevant staff attended training on GS-VER awareness and monitoring requirements. The training covered the followings:

- The GS-VER process and its broad aims
- The project management structure
- The project activity
- The principles of quality management applied to Emission Reductions
- Understanding and using the monitoring equipment
- Undertaking the procedures as described in the GS-VER quality manual
- Site safety

Besides, all the operators have also obtained the relevant technical training.

4.4 Record Keeping and Internal Reporting

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

And all data including calibration records are kept until 2 years after the end of the total crediting period of the GS –VER project.

4.5 Quality Assurance (QA)/Quality Control (QC)

4.5.1 QA/QC Procedures

Monthly generation data is audited by Mr. Yu Rong before it is accepted and stored.

The invoices from Baotou Power Supply Company are used for cross-check.

4.5.2 Calibration of Monitoring Meters

All the measurement equipment has been calibrated and checked for accuracy following industry standards and procedures (JJG596-1999), in which the requested calibration frequency is normally every 1-year.

Calibrations of the meters during the current monitoring period have been made on schedule. The calibration results show that all measurement equipment is within the accuracy specified in GS-PDD or relevant industrial standards, and qualified to monitoring the power supplied to the grid by the project.

Table 10 Calibration

Parameter	Meter	Location	SN	Accuracy	Calibration on	Calibration due
E _{out} , E _{in}	M1	Honiton 220kv substation	93729773	0.2S	23, Mar, 2009	22, Mar, 2010
					24, Jun, 2009	23, Jun, 2010
					20, Jun, 2011	19, Jun, 2012
					14, Dec, 2011	13, Dec, 2012
	M1 backup	Honiton 220kv substation	94196690	0.2S	23, Mar, 2009	22, Mar, 2010
					24, Jun, 2009	23, Jun, 2010
					20, Jun, 2011	19, Jun, 2012
					14, Dec, 2011	13, Dec, 2012
	M2	Hongta substation	94196691	0.2S	24, Mar, 2009	23, Mar, 2010
					25, Jun, 2009	24, Jun, 2010
					20, Jun, 2011	19, Jun, 2012
					14, Dec, 2011	13, Dec, 2012
	M2 backup	Hongta substation	94196682	0.2S	24, Mar, 2009	23, Mar, 2010
					25, Jun, 2009	24, Jun, 2010
					20, Jun, 2011	19, Jun, 2012
					14, Dec, 2011	13, Dec, 2012
E _{out} , E _{in}	M3	Honiton 35kv line	96212993	0.2S	20, Jun, 2011	19, Jun, 2012
E _{backup}	Mbackup	Honiton wind farm	2008-0312377	1.0S	30, Jun, 2011	29, Jun, 2012

Note: the gap between calibrations has been recalculated according to *Guidelines for assessing compliance with the calibration frequency requirements* ver. 01, EB52/Annex 60.

All the certificates of calibration are available to the DOE for verification.

5 EMISSION REDUCTIONS CALCULATION FOR THE PROJECT

5.1 Fixed values for calculating emission reductions

In calculating the emission reductions achieved by the project activities, the following fixed data and parameters as validated in GS-PDD are adopted.

Table 11 Emission Factor

Parameters	Description	Unit	Value applied
EF_y	Baseline emission factor in year y	tCO ₂ e/MWh	1.0548

According to GS-PDD, the baseline emission factor is decided ex-ante and fixed during the crediting period.

5.2 Baseline Emissions

Baseline emissions are calculated by the following formula:

$$BE_y = EG_y \times EF_y$$

Where:

BE_y : Baseline emission [tCO₂e] in year y.

EG_y : Annual electricity supplied by the project to the grid [MWh] in year y.

EF_y : Baseline emission factor [tCO₂e/MWh] in year y.

$$BE_y = 159,730.93 \text{ MWh} \times 1.0548 \text{ tCO}_2\text{e/MWh} = 168,484 \text{ tCO}_2\text{e}$$

5.3 Project Emissions

According to ACM0002, as a renewable energy activity, PE_y of the project is zero.

Therefore, **PE_y = 0**

5.4 Leakage Emission

According to ACM0002, no leakage is considered for the project.

Therefore, **L_y = 0**

5.5 Emission Reductions

According to the methodology, the formula for calculating emission reductions is as follow:

$$ER_y = BE_y - PE_y - L_y$$

Where,

ER_y: are the total emissions reductions during the monitoring period in tons of CO₂e

BE_y: are the baseline emissions for the project activity during the monitoring period in tons of CO₂e

PE_y: are the emissions from the project activity during the monitoring period in tons of CO₂e

L_y: are the missions due to leakage during the monitoring period in tons of CO₂e

Thus, the emission reductions, ER_y, by the project activity during this monitoring period are calculated as:

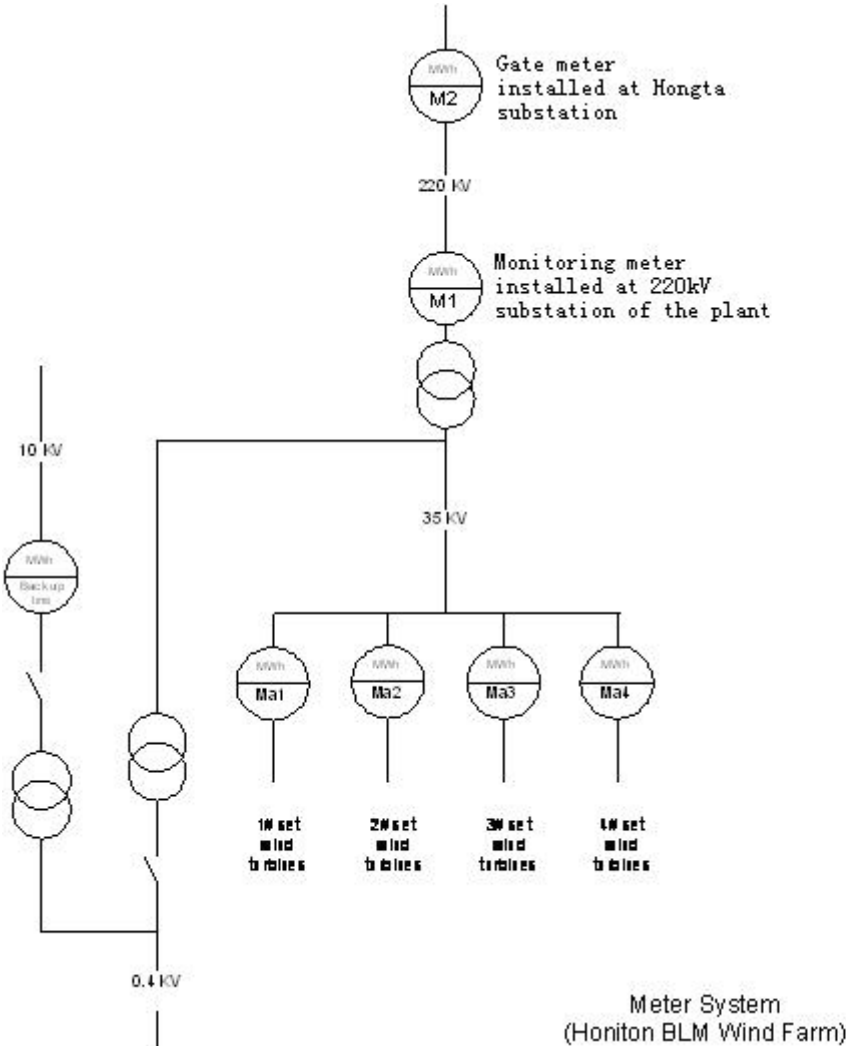
$$\mathbf{ER_y = BE_y - PE_y - L_y = 168,484 - 0 - 0 = 168,484t\ CO_2e.}$$

In conclusion, the project activity has achieved **168,484 t CO₂e** of emission reductions during this monitoring period, which is less than the PDD estimation ERs (116,982*975/365=312,486 t CO₂e).

5.6 Change to key SD indicators

Over the current monitoring period, the key SD indicators are the same, and therefore the project is still in compliance with GS standards.

Annex 1 Monitoring System Before May 2011



Notes:
There are installed two meters for both gate meter and monitoring meter

Annex 2 Monitoring System After May 2011

