VGS *Emission Reductions* Monitoring Report

Hunan Guanbaodu-Liangjiangkou-Xinglong Small-scale Hydropower Bundle Project

(Gold Standard ID 835)

Monitoring period:

1st January 2009--31st December 2010

Version 2.5

18th July 2011

Climate Bridge Ltd.

1. Introduction

The purpose of this report is to calculate the emission reductions achieved by *Hunan Guanbaodu-Liangjiangkou-Xinglong Small-scale Hydropower Bundle Project* (Gold Standard ID 835) during the monitoring and crediting period covered by this report, and to serve as basis for the verification and issuance of corresponding VGS credits.

1.1 Monitoring and Crediting Period

1st Jan 2009 – 31st Dec 2010

1.2 Document Reference

Version: .2.5
Date: 18th July 2011

2. General description of the project

The *Hunan Guanbaodu-Liangjiangkou-Xinglong Small-scale Hydropower Bundle Project* (hereafter referred to as "the bundled project") consists of three hydropower projects in Huaihua City, Hunan Province, P.R. China. The total installed capacity of the bundle project is 7.65 MW, and the electricity will be transferred to Central China Power Grid (CCPG). The construction of *Guanbaodu* commenced in August 2005, and its operation started in January 2008; the construction of *Liangjiangkou* commenced in August 2006, and its operation started in January 2008; the construction of *Xinglong* commenced in January 2007, and its operation started in June 2009.

The start date of the first crediting period is defined as 1st Jan 2009. The chosen crediting period is 7 years. The net electricity generated during the monitoring period from 1st Jan 2009 to 31st Dec 2010 is 37641.36MWh.

The Guanbaodu project is located on the lower reach of Qushui river. The project is 16 km from Jingzhou County and the geographical coordinates are east longitude 109°44'09" and north latitude 26°40'38". The Liangjiangkou project is located on the Tongdao River. The project is 8.5 km away from Tongdao County and the geographical coordinates are east longitude 109°47'45" and north latitude 26°13'11". The Xinglong project is located on the Beidou Rivulet. The project is 55 km away from Xupu County and the geographical coordinates of the power plant are east longitude 110°35'08" and north latitude 27°35'14".

The bundled project contributes to Sustainable Development through the reduction of GHG emissions and other pollutants associated with the standard practice of fossil fuel fired power plants in the region. It also contributes to ensuring the local power supply by generating reliable hydro power, promoting the local economy development and improvement of livelihoods by creating job opportunities, and helping local residents pave roads, build bridges, and construct power transmission lines. Please refer to the project PDD for more detailed information.

3. Monitored Data

3.1 The Methodology applied for the Project

The baseline and monitoring methodology applied for the proposed project is ACM0002 (Version 12.1): "Consolidated methodology for grid-connected electricity generation from renewable resources".

3.2 Relevant data necessary for determining the baseline of anthropogenic emission by sources of GHGs within the project boundary and how such data will be collected and archived

Guanbaodu

ID number	Data variable	Source of data	Data unit	Measured (m), calculated (c), estimated (e),	Recording Frequency	Data value	How will the data be archived? (electronic/ paper)	Comment
1	Electricity export (EG_{export})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
2	Electricity import (EG_{import})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.

3	Net Electricity supplied to the grid by the project (EG_y)	ID1 – ID2	MWh	C	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
4	Installed capacity	Readings of nameplate	MW	M	Yearly	4 (2009) 4 (2010)	Paper	The installed capacity is monitored by checking the nameplates of all the generators installed in the project
5	Area of the reservoir	The third party's report	m^2	M	Yearly	325,000 (2009) 329,000 (2010)	Paper	The area of the reservoir is measured by local River Management Station
6	Power density	Installed capacity/ area of the reservoir	W/m^2	C	Yearly	12.31 (2009) 12.16 (2010)	Paper	The results during the whole verification period are higher than $10W/m^2$, therefore, no project emission should be taken into account

Figure 3-1 shows power connection diagram of *Guanbaodu*. The local power company uses a bidirectional gateway meter (M2) which is installed at the Gantang Transformer Station and owned by local power company to measure and record the amount of electricity exported to the grid and the amount of electricity imported from the grid. The readings of gateway meter (M2) should be recorded on a monthly basis, and the Electricity Transaction Note (ETN) is served as additional check for quality control. All data will be archived for at least 2 years after the end of the last crediting period.

M1 installed at the power station is the back-up meter, and it is owned by the Guanbaodu Hydropower Station; the technical staff at the power station will record the readings of M1 every day and write daily log.

M1 and M2 are installed and verified according to *Technical Administrative Code of Electricity Energy Metering* (DL/T448-2000). The two meters will be calibrated at least once a year by the Measurement Institute of Jingzhou Power Co., Ltd. to secure the measurement accuracy.

If M2 is detected any failure but M1 operates normally, the emission reduction will be conservatively calculated by the readings of M1. The faulty meter will be repaired or replaced by the accredited equipment testing organization as soon as possible. If malfunction occurs for both M1 and M2, no emission reductions will be claimed until the malfunction is fixed.

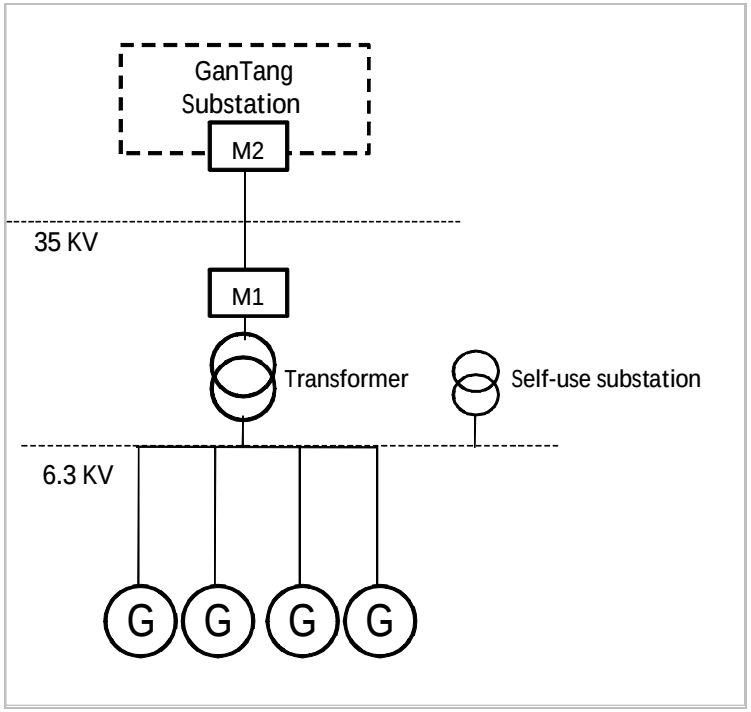

Figure 3-1 Power connection diagram of Guanbaodu

Specifications of M1 and M2 are listed in table 3-1 below:

Table 3-1 Specifications of Meters

Meter No.	Type	Meter Verifier	Accuracy	Calibration Frequency	Calibration Date
M1	DSSD25	the Measurement Institute of Jingzhou Power Co., Ltd.	0.5	Yearly	26/05/2008 28/04/2009

					08/04/2010
M2	DSSD331	the Measurement Institute of Jingzhou Power Co., Ltd.	0.5	Yearly	26/05/2008 (old meter) 28/04/2009 (old meter) 08/04/2010 (old meter) 10/06/2010 (new meter)

Actually, M2 detected failure in June 2010, and on 12 June 2010, M2 was replaced by a new meter of the same type and accuracy. That's why there were two feed-in electricity records for June 2010. The last reading of the old meter has been recorded by the grid company to calculate the electricity generation in June before 12 June 2010, and the electricity generation after 12 June 2010 was recorded by readings of the new meter, and the initial reading of the new meter was set as zero.

During the malfunction period from April to June of 2010, the exported electricity delivered to the grid was calculated based on the readings of M1, deducting 0.5% (the designed loss standard of the transmission lines between Gantang Substation and Guanbaodu Hydropower Station[1]) of the line losses. As for the imported electricity from the grid during this period, the electricity in April and May of 2010 was calculated based on the reading records of old meter which was normal and has been accepted by both parties of project owner and grid company, The imported electricity in June of 2010 was estimated to be 8000kWh for simplicity as no reading records can be used due to the malfunction. According to the historical data in 2009 and 2010, the maximum monthly imported electricity is 7,490 kWh, so this estimation is conservative.

According to the agreement between the grid company and project owner, the electricity generation before 11/06/2010 was calculated based on the readings of M2. Considering the reading errors during the malfunction period, a certain amount of retroactive electricity has been added in the ETN of Oct. 2010. The amount of retroactive electricity was calculated according to the difference between the readings of M1 and M2 during the malfunction period, deducting 0.5% of the line losses and 8,000 kWh of the imported electricity[1]. The total ER calculated based on this method in 2010 was more than that calculated based on the first method as described before (see Table 4-1 and Table 4-2 for details), so the first method is used for conservativeness.

[1] Guanbaodu Hydropower Station & Jingzhou Power Co., Ltd. Clarification on the Retroactive Electricity Estimation during Malfunction Period. July 8h 2010

Liangjiangkou

ID number	Data variable	Source of data	Data unit	Measured (m), calculated (c), estimated (e),	Recording Frequency	Data value	How will the data be archived? (electronic/ paper)	Comment
1	Electricity export (EG_{export})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
2	Electricity import (EG_{import})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
3	Net Electricity supplied to the grid by the project (EG_y)	ID1 – ID2	MWh	C	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
4	Installed capacity	Readings of nameplate	MW	M	Yearly	1.89 (2009) 1.89 (2010)	Paper	The installed capacity is monitored by checking the nameplates of all the generators installed in the project
5	Area of the reservoir	The third party's report	m^2	M	Yearly	176,200 (2009) 179,300 (2010)	Paper	The area of the reservoir is measured by local Reservoir and Immigration Office

6	Power density	Installed capacity/ area of the reservoir	W/m^2	C	Yearly	10.73 (2009) 10.54 (2010)	Paper	The results during the whole verification period are higher than 10W/m^2, therefore, no project emission should be taken into account

Figure 3-2 shows power connection diagram of *Liangjiangkou*. The local power company uses the bidirectional gateway meter (M1) which is installed at the Shuangjiang Transformer Station and owned by local power company to measure and record the amount of electricity exported to the grid and the amount of electricity imported from the grid. The readings of gateway meter (M1) should be recorded on a monthly basis, and the Electricity Transaction Note (ETN) is served as additional check for quality control. All data will be archived for at least 2 years after the end of the last crediting period.

Meters are installed and verified according to *Technical Administrative Code of Electricity Energy Metering* (DL/T448-2000). The operation of M1 is checked periodically by the Tongdao Power Company and calibrated once every year.

If M1 is detected any failure, no emission reductions will be claimed until the malfunction is fixed.

Specifications of M1 are listed in table 3-2 below:

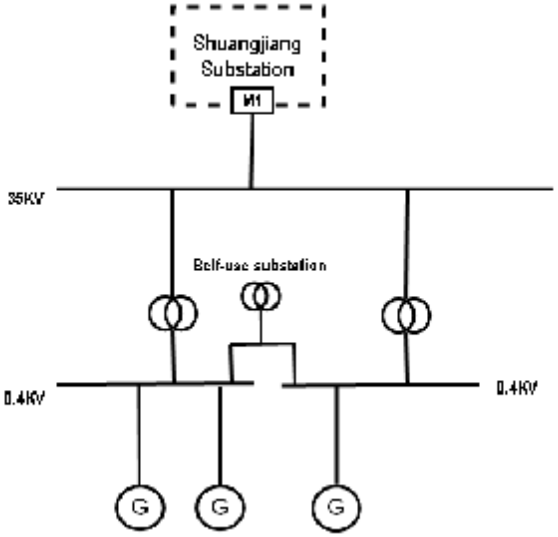

Figure 3-2 Power connection diagram of Liangjiangkou

Table 3-2 Specifications of Meters

Meter No.	Type	Meter Verifier	Accuracy	Calibration Frequency	Calibration Date
M1	DSSD566	Tongdao Power Company	0.5	Yearly	10/02/2007 25/01/2008 05/01/2009 28/12/2009 22/12/2010

Xinglong

ID number	Data variable	Source of data	Data unit	Measured (m), calculated (c), estimated (e),	Recording Frequency	Data value	How will the data be archived? (electronic/ paper)	Comment
1	Electricity export (EG_{export})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
2	Electricity import (EG_{import})	Meter reading	MWh	M	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.
3	Net Electricity supplied to the grid by the project (EG_y)	ID1 – ID2	MWh	C	Hourly measurement and monthly recording	See details in Annex 1	Paper	Electricity monitored by meter records and cross checked by power sales receipts.

Figure 3-3 shows power connection diagram of *Xinglong*. The local power company uses the bidirectional gateway meter (M1) which is installed at the outlet of the Xinglong Power Station to measure and record the amount of electricity exported to the grid and the amount of electricity imported from the grid. The readings of gateway meter (M1) should be recorded on a monthly basis, and the Electricity Transaction Note (ETN) is served as additional check for quality control. All data will be archived for at least 2 years after the end of the last crediting period.

Meters are installed and verified according to *Technical Administrative Code of Electricity Energy Metering* (DL/T448-2000). The operation of M1 is checked periodically by the Xupu Power Company and calibration will also be conducted periodically.

If M1 is detected any failure, no emission reductions will be claimed until the malfunction is fixed.

Actually, the M1 was broken on 27 August 2009 due to a lightning stroke, since the old meter cannot be fixed, a new meter has been installed to replace the old one on 28 August 2009, and the new meter has the same type and accuracy with the old one. The last reading of the old meter has been recorded by the grid company when the replacement was performed in order to calculate of the electricity generation before the malfunction date. The initial reading of the new meter was set as zero. The exact time on 27 August 2009 when the meter broke cannot be traced back but as the old meter stopped recording showing the value metered at the time of the failure after the lightning stroke, it is guaranteed that between this event and the replacement no emission reductions can be claimed.

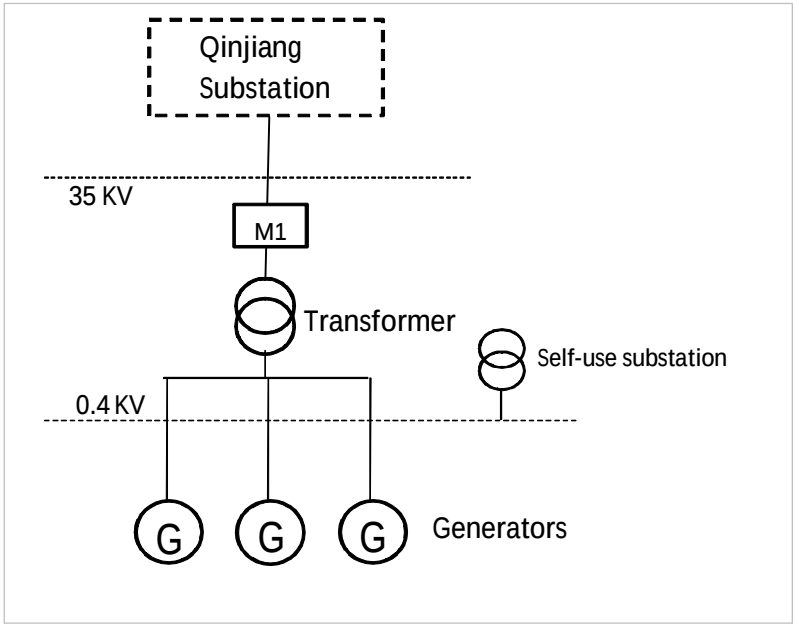

Figure 3-3 Power connection diagram of Xinglong

Specifications of M1 are listed in table 3-3 below:

Table 3-3 Specifications of Meters

Meter No.	Type	Meter Verifier	Accuracy	Calibration Frequency	Calibration date
M1	DSSD536	Xupu Power Company	0.5s	Yearly	11/04/2009 (old meter)

					11/04/2009 (new meter) 13/03/2010 (new meter)

3.3 QA/QC for the bundle project

The monitoring of the emissions reductions of all the three components are basically the same as each other. The monitoring process will be carried out according to the operation and management structure shown in Figure 3-4:

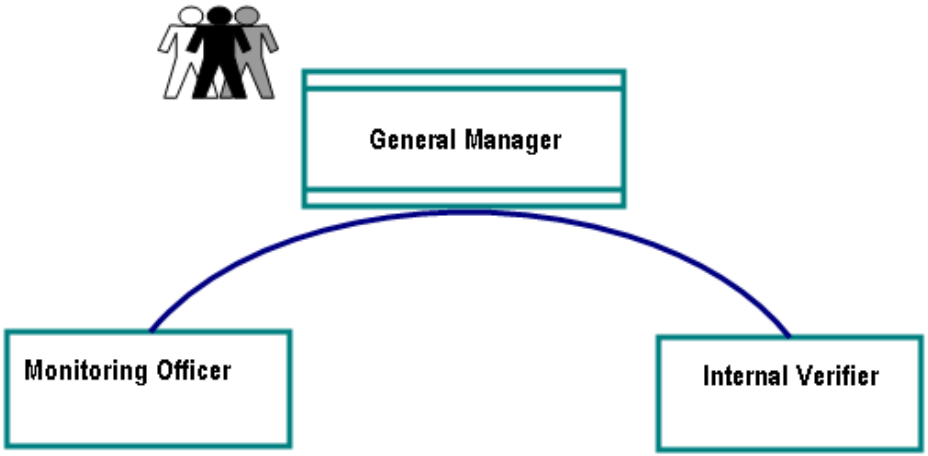

Figure 3-4 Operations and Management Structure

The overall responsibility for the monitoring process will be conducted by the General Manager. The measurement of the electricity exports and imports will be carried out by a monitoring officer. In addition, the project developer will designate an internal verifier who will be responsible for internal verification of the measurement, collection of electricity receipts and the calculation of the emission reductions.

Besides data management procedure described above, the project owner also take the following procedures to ensure the operation and accuracy:

1) All relevant staff receives training periodically to improve their know-how and performance.
2) The project owner has made an on-site operation instruction concerning all operation procedures.
3) In the case that the readings of meters are not within the acceptable precision level at any month or the meter works abnormally, the net electricity supplied to grid will be confirmed based on the conventional process accepted by project owner and Grid Company. If such happens, relevant proof will be achieved by both

parties and submitted for verification.

4. GHG Calculations

4.1 Project activity emissions

According to the methodology ACM0002 (ver. 12.1), the project emission is not considered, and therefore, $PE_y = 0$.

Leakages

According to the methodology ACM0002 (ver.12.1), the project leakage is not considered, and therefore, $L_y = 0$.

4.2 Baseline Emissions

Baseline Emissions are calculated by multiplying the Baseline Emission factor by annual power generation.

$BE_y = EG_y \times EF_y$

Where:
BE_y is the baseline emissions of Central China Power Grid in year y
EG_y is the Net electricity supplied by the project to the grid in year y. $EG_y = EG_{Export,\ y} — EG_{Import,\ y}$
EF_y is the emission factor in year y. According to the calculation in the PDD, EF_y=0.85285 (tCO_2e/MWh)

4.3 Emission reduction

The emission reductions by the project activity during the year y are calculated as follows:

$ER_y = BE_y – PE_y$

Where:
ER_y is the emissions reductions of the project activity during the year y (tCO_2e)
BE_y is the baseline emissions due to displacement of electricity during the year y (tCO_2e)
PE_y is the project emission during the year y (tCO_2e)

Detailed amounts of recorded electricity generated from each project and the corresponding calculations of ER are listed in the tables below.

Table 4-1 Emission reduction from Guanbaodu during January 2009 to December 2010

	Guanbaodu					
	$EG_{Exported}$ (Mwh)	$EG_{Imported}$ (Mwh)	EG_y (Mwh)	BE_y (tCO_2e/MWh)	PE_y (tCO_2e/MWh)	ER_y (tCO_2e)
	Receipt Records		EG_{export} -EG_{import}	$EG_y \times EF_y$		BE_y–PE_y
2009.1	471.24	5.18	466.06	397.48	0.00	397.48
2009.2	811.51	6.93	804.58	686.19	0.00	686.19
2009.3	1123.29	1.75	1121.54	956.51	0.00	956.51
2009.4	1306.48	1.96	1304.52	1112.56	0.00	1112.56
2009.5	1644.23	0.00	1644.23	1402.28	0.00	1402.28
2009.6	1367.66	0.70	1366.96	1165.81	0.00	1165.81
2009.7	1361.29	0.91	1360.38	1160.20	0.00	1160.20
2009.8	1256.57	0.42	1256.15	1071.31	0.00	1071.31
2009.9	589.26	2.87	586.39	500.10	0.00	500.10
2009.10	264.81	6.93	257.88	219.93	0.00	219.93
2009.11	357.00	5.88	351.12	299.45	0.00	299.45
2009.12	273.70	7.28	266.42	227.22	0.00	227.22
2009 Subtotal			*10786.23*	*9199.04*	*0.00*	*9199.04*
2010.1	359.31	7.49	351.82	300.05	0.00	300.05
2010.2	451.78	7.21	444.57	379.15	0.00	379.15
2010.3	249.76	6.16	243.60	207.75	0.00	207.75
2010.4	800.84	3.71	797.13	679.83	0.00	679.83
2010.5	1100.33	1.40	1098.93	937.22	0.00	937.22
2010.6	1410.97	8.00	1402.97	1196.52	0.00	1196.52
2010.7	1153.18	1.47	1151.71	982.24	0.00	982.24
2010.8	468.44	6.02	462.42	394.37	0.00	394.37
2010.9	247.80	3.15	244.65	208.65	0.00	208.65
2010.10	525.00	4.62	520.38	443.81	0.00	443.81
2010.11	392.00	5.67	386.33	329.48	0.00	329.48
2010.12	875.00	5.39	869.61	741.45	0.00	741.45
2010 Subtotal			*7974.12*	*6800.72*	*0.00*	*6800.72*

For Guanbaodu project, as the gateway meter (M2) was detected failure in June of 2010, and the old meter of M2 was replaced on 12 June 2010 by a new meter with the same type and accuracy. Therefore, during the malfunction period from April to June, the exported electricity delivered to the grid was calculated based on the readings of M1, deducting 0.5% (the designed loss standard of the transmission lines between Gantang Substation and Guanbaodu Power Station[2]) of the line losses. As to the imported electricity from the grid during this period, the electricity of April and May was calculated based on the reading records of M2 which was normal and has been accepted by both parties of the project owner and grid company; and the imported electricity of June was estimated to be 8,000kWh for simple. According to

[2] Guanbaodu Hydropower Station & Jingzhou Power Co., Ltd. Clarification on the Retroactive Electricity Estimation during Malfunction Period. July 8th 2010

the historical data in 2009 and 2010, the maximum monthly imported electricity is 7,490 kWh, so this estimation is conservative.

According to the agreement between the grid company and project owner, the electricity generation before 11/06/2010 was calculated based on the readings of M2. Taking into account the reading errors during the malfunction period, a certain amount of retroactive electricity has been added to the ETN of Oct. 2010. The amount of retroactive electricity was calculated according to the difference between the readings of M1 and M2 during the malfunction period, deducting 0.5% of the line losses and 8,000 kWh of the imported electricity[3]. The total ER calculated based on this method in 2010 was 6,813.92 tCO_2 (see Table 4-2 below), more than that calculated based on the first method as described before (6800.72 tCO_2), so the first method is used for conservativeness.

Table 4-2 Emission reduction of Guanbaodu in 2010 based on the alternative method for estimation of electricity generation

	Guanbaodu					
	$EG_{Exported}$ (Mwh)	$EG_{Imported}$ (Mwh)	EG_y (Mwh)	BE_y (tCO_2e/MWh)	PE_y (tCO_2e/MWh)	ER_y (tCO_2e)
	Receipt Records		EG_{export} -EG_{import}	$EG_y \times EF_y$		BE_y–PE_y
2010.1	359.31	7.49	351.82	300.05	0.00	300.05
2010.2	451.78	7.21	444.57	379.15	0.00	379.15
2010.3	249.76	6.16	243.60	207.75	0.00	207.75
2010.4	785.12	3.71	781.41	666.43	0.00	666.43
2010.5	1087.03	1.40	1085.63	925.88	0.00	925.88
2010.6	1278.76	0.49	1278.27	1090.17	0.00	1090.17
2010.7	1153.18	1.47	1151.71	982.24	0.00	982.24
2010.8	468.44	6.02	462.42	394.37	0.00	394.37
2010.9	247.80	3.15	244.65	208.65	0.00	208.65
2010.10	694.19	4.62	689.57	588.10	0.00	588.10
2010.11	392.00	5.67	386.33	329.48	0.00	329.48
2010.12	875.00	5.39	869.61	741.45	0.00	741.45
2010 Subtotal			*7989.59*	*6813.92*	*0.00*	*6813.92*

[3] Guanbaodu Hydropower Station & Jingzhou Power Co., Ltd. Clarification on the Retroactive Electricity Estimation during Malfunction Period. July 8th 2010

Table 4-3 Emission reduction of Liangjiangkou during January 2009 to December 2010

	Liangjiangkou					
	$EG_{Exported}$ (Mwh)	$EG_{Imported}$ (Mwh)	EG_y (Mwh)	BE_y (tCO_2e/MWh)	PE_y (tCO_2e/MWh)	ER_y (tCO_2e)
	Receipt Records		$EG_{export} - EG_{import}$	$EG_y \times EF_y$		$BE_y - PE_y$
2009.1	189.81	1.96	187.85	160.21	0.00	160.21
2009.2	324.41	2.44	321.97	274.59	0.00	274.59
2009.3	692.86	1.32	691.54	589.78	0.00	589.78
2009.4	939.04	0.87	938.17	800.12	0.00	800.12
2009.5	1075.14	0.62	1074.53	916.41	0.00	916.41
2009.6	951.89	0.84	951.05	811.10	0.00	811.10
2009.7	990.36	0.62	989.74	844.10	0.00	844.10
2009.8	738.00	0.90	737.10	628.64	0.00	628.64
2009.9	291.14	1.82	289.32	246.75	0.00	246.75
2009.10	181.38	2.16	179.23	152.85	0.00	152.85
2009.11	118.58	2.13	116.45	99.32	0.00	99.32
2009.12	129.86	2.35	127.51	108.75	0.00	108.75
2009 Subtotal			*6604.47*	*5632.62*	*0.00*	*5632.62*
2010.1	196.20	1.82	194.38	165.77	0.00	165.77
2010.2	182.76	1.99	180.77	154.17	0.00	154.17
2010.3	136.44	2.46	133.98	114.26	0.00	114.26
2010.4	565.35	1.54	563.81	480.84	0.00	480.84
2010.5	811.47	0.92	810.54	691.27	0.00	691.27
2010.6	880.21	0.76	879.45	750.04	0.00	750.04
2010.7	726.66	0.67	725.98	619.16	0.00	619.16
2010.8	295.04	1.76	293.27	250.12	0.00	250.12
2010.9	275.21	1.09	274.12	233.78	0.00	233.78
2010.10	376.71	1.62	375.09	319.89	0.00	319.89
2010.11	154.03	2.55	151.48	129.19	0.00	129.19
2010.12	451.42	2.02	449.40	383.27	0.00	383.27
2010 Subtotal			*5032.27*	*4291.77*	*0.00*	*4291.77*

Table 4-4 Emission reduction of Xinglong during June 2009 to December 2010

	Xinglong					
	$EG_{Exported}$ (Mwh)	$EG_{Imported}$ (Mwh)	EG_y (Mwh)	BE_y (tCO_2e/MWh)	PE_y (tCO_2e/MWh)	ER_y (tCO_2e)
	Receipt Records		$EG_{export} - EG_{import}$	$EG_y \times EF_y$		$BE_y - PE_y$
2009.1			0.00	0.00	0.00	0.00
2009.2			0.00	0.00	0.00	0.00
2009.3			0.00	0.00	0.00	0.00

2009.4			0.00	0.00	0.00	0.00
2009.5			0.00	0.00	0.00	0.00
2009.6	89.29	0.00	89.29	76.15	0.00	76.15
2009.7	522.59	0.00	522.59	445.69	0.00	445.69
2009.8	724.57	0.00	724.57	617.95	0.00	617.95
2009.9	515.13	0.00	515.13	439.33	0.00	439.33
2009.10	70.49	0.00	70.49	60.12	0.00	60.12
2009.11*	0.00	0.00	0.00	0.00	0.00	0.00
2009.12*	0.00	0.00	0.00	0.00	0.00	0.00
2009 Subtotal			*1922.06*	*1639.23*	*0.00*	*1639.23*
2010.1	153.27	0.00	153.27	130.71	0.00	130.71
2010.2	175.63	0.00	175.63	149.79	0.00	149.79
2010.3	161.25	0.00	161.25	137.52	0.00	137.52
2010.4	564.41	0.00	564.41	481.36	0.00	481.36
2010.5	610.12	0.00	610.12	520.34	0.00	520.34
2010.6	769.02	0.00	769.02	655.86	0.00	655.86
2010.7	633.85	0.00	633.85	540.58	0.00	540.58
2010.8	408.24	0.00	408.24	348.17	0.00	348.17
2010.9	445.38	0.00	445.38	379.84	0.00	379.84
2010.10	800.60	0.00	800.60	682.79	0.00	682.79
2010.11	283.85	0.00	283.85	242.08	0.00	242.08
2010.12	316.54	0.00	316.54	269.96	0.00	269.96
2010 Subtotal			*5322.21*	*4539.04*	*0.00*	*4539.04*

*The operation of Xinglong project paused in the last two months of 2009 due to technical problems; therefore, the corresponding data of electricity generation for the two months are 0.

Table 4-5 Emission Reduction(ER) of the Bundled Project during January 2009 to December 2010

(unit: tCO_2e)

	Guanbaodu ER_y	Liangjiangkou ER_y	Xinglong ER_y	ER_y of the Bundled Project
2009	*9199.04*	*5632.62*	*1639.23*	*16470.89*
2010	*6800.72*	*4291.77*	*4539.04*	*15631.54*
Total ER of the bundled project during the above period =				32102.43