MONITORING REPORT

(Version 01)

Qinghai Jinshaxia 70MW Hydropower Project

(CDM registration reference number: 1467)

Registration Date: 5 May, 2008

The first Crediting Period: 5 May, 2008 – 4 May, 2015

Monitoring Period: 1 September, 2008 –31 October, 2008

Dated: 26 November, 2008

Responsible Entity: CPI Carbon Asset Management Co., Ltd.

1. Introduction

This document reports the emission reduction generated by the Qinghai Jinshaxia 70MW Hydropower Project, CDM registration reference number is 1467 in the following monitoring period:
5 May, 2008 – 4 May, 2015

2. General description of the project

2.1 Description of the Project Activity

Jinshaxia 70MW Hydropower Project (hereinafter referred to as "the project") is located on Datong River, in Huzhu Tu Autonomous County, Haidong Prefecture, Qinghai Province, China, and is 141 km away from Xining City. The project is a low-weir diversion-type run-of-river hydropower project with an installed capacity of 70 MW.

The primary objective of the project is to generate electricity to meet the ever-increasing demand in the Qinghai Provincial Grid, which is an integral part of the Northwest China Grid (NWCG). Electricity generated by the project displaces part of the electricity generated by the NWCG which is dominated by fuel-fired power plants, and thus greenhouse gas (GHG) emission reductions could be achieved. And also, it contributes to sustainable development in the region by supply of reliable, zero-emitting renewable energy, improvement of villagers' household, education and health, increasing local incomes and providing job opportunities.

2.2 Technical description of the project activity

Location of the project activity

The project is located on the downstream of the Datong River in Huzhu Tu Autonomous County, Haidong Prefecture, Qinghai Province, China, and is 141 km away from Xining City. The coordinates of the project are: 101°52′E, 36°57′N.

Technology to be employed by the project activity

The project is a low-weir diversion-type run-of-river hydropower project with a total installed capacity of 70 MW and a designed operation lifetime of 30 years. The project is consisted of a diversion weir, a penstock, a pressure adjustment well, pressure pipelines, a powerhouse and a step-up substation. Through the penstock, a water head is formed taking advantage of the natural height drop, which then enters into the pressure adjustment well. The hydraulic pressure of the water is increased through high pressure pipeline, then the water flows into the power station and drives the generator to produce electricity. Finally, voltage of the generated power is increased to 110 kV through the step-up substation and the power is supplied to NWCG.

The diversion weir is gravity type. The length of the penstock is 6.404km, and the total length of the pressure pipelines is 148m. Four vertical-axis mixed-flow turbines (3×20MW+1×10MW) with designed head of 72.5 meters are installed. To deliver the electricity to the grid, two transmission lines are constructed from the step-up substation to 110kV transmission substation.

All technologies utilized in the project are domestic technologies. There is no technology imported to China by the project.

3. Monitoring methodology and plan

The monitoring methodology ACM0002 (version 06) -"Consolidated monitoring methodology for zero-emissions grid-connected electricity generation from renewable sources" is selected for the project. In accordance with the monitoring methodology, the following parameter needs to be monitored for the project:

- Net Electricity Supply

ID	Data Type	Data variable	Data unit	Recoreing frequency	Proportion of data to be monitored	How will the data be archived? (electronic /paper)	For how long is archived data to be kept?
EGy	Electricity	Net electricity delivered to the grid	MWh	Hourly measurement and monthly recording	100%	Electronic	During the crediting and two years after

4. Quality Control and Quality Assurance (QC/QA)

4.1 QC/QA procedures

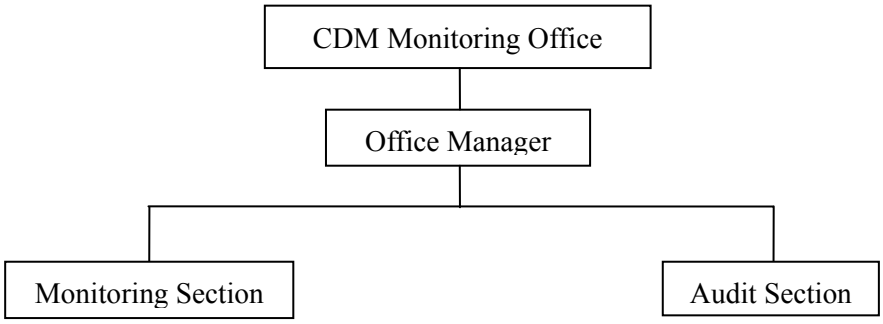
ID	Uncertainty level of data (High/Medium/Low)	Explain QC/QA rocedures planned for these data, or why such procedures are not necessary
EGy	Low	The net electricity delivered to the grid (EGy) is consisted of the electricity supplied by the project to NWCG and the electricity supplied by NWCG to the project. The electricity supplied by the project to NWCG and the electricity supplied by NWCG are monitored hourly and recorded

		monthly. The assigned person is responsible for recording the data. Data and records are checked prior to being archived. So, measurements are being continuously recorded, and then the monthly electricity outputs can be shown. The measurement is in compliance with the National Guidelines and requirements of the grid company for accuracy and reliability. The data checks are cross-check by the metering system and electricity sales receipts. The project company is responsible to provide this data yet.

4.2 Roles and responsibilities

Prior to the start of the crediting period, the project owner has set up a CDM Monitoring Office and designate a qualified staff responsible for all relevant matters, including monitoring of emission reductions, data collection and archiving, QC/QA, and verification. The structure of the CDM Monitoring Office is outlined in Figure 1.

Figure 1 Organization Chart of the CDM Project Management Office



The responsibilities of the sections are briefly described as following:

- Office Manager: Manage the work of CDM Monitoring Office; Charge of all relevant matters with the monitoring activity.
- Monitoring Section: Monitor, collect and archive the data according to the Monitoring Plan.
- Audit Section: Audit the work of Monitoring Section and execute the QC/QA procedures according to the Monitoring Plan.

5. GHG Calculations

According to the methodology: $ER_y = BE_y - PE_y - L_y$

5.1 Project emissions (PE_y)

The submerged area of the project is 350,050.7 m^2 (including the land area and the river surface area). The power density of the project is 200 W/m^2 (=70,000,000/350,050.7)>10W/m^2. Therefore, $PE_y = 0$.

5.2 Leakages (L_y)

According to the methodology, the leakage of the project need not be considered. L_y=0.

5.3 Baseline emissions (BE_y)

The baseline emissions (BE_y in tCO_2e) are the product of the baseline emissions factor (EF_y in tCO_2e/MWh, calculated ex-ante and will not be updated during the first crediting period) times the net electricity supplied by the project activity to the grid (EG_y in MWh) during the monitoring period:

$$BE_y = EF_y \times EG_y$$

Electricity supplied by the project to NWCG

period	Electricity supplied by the project to NWCG (Unit: MWh)
01/09/2008-30/09/2008	39911.652
01/10/2008-31/10/2008	29260.836
total	69172.488

The electricity achieved by the project from NWCG

The electricity achieved by the project from NWCG is consisted of two parts as follows:

Electricity used by the power house

period	Electricity used by the power house(Unit: MWh)
01/09/2008-30/09/2008	0
01/10/2008-31/10/2008	0
total	0

Electricity used by the dam

period	Electricity used by the dam (Unit: MWh)	Conservative value of electricity used by the

		dam (Unit: MWh)
01/09/2008-20/09/2008	2.049	2.09
21/09/2008-31/10/2008	4.089	4.171
total	6.138	6.261

Note: 1. When the grid company issued sales receipts to the power plant, based on the readings of the meter, the grid company added 0.609 MWh as transformer loss every month. The value of electricity used by the dam from 01/09/08 to 20/09/08 used the value on sales receipt for the whole month from 21/08/08 to 20/09/08 for conservativeness. The electricity used by the dam was supplied by the project since 21/10/08 0:00. Therefore, the value of electricity used by the dam from 21/09/08 to 31/10/08 used the meter readings on 21/09/08 0:00 and 20/10/08 24:00 and added the transformer losses for a whole month for conservativeness.

2. As the accuracy class of the meter installed at the dam is 2s, the uncertainty is 2%. The electricity used by the dam was increased by 2% to calculate emission reductions.

Electricity achieved by the project from NWCG

Period	Electricity used by the power house (MWh)	Electricity used by the dam (MWh)	Electricity achieved by the project from NWCG (MWh)
01/09/2008-31/10/2008	0	6.261	6.261

Net Electricity Supply (EGy)

period	Electricity supplied by the project to NWCG (MWh)	Electricity achieved by the project from NWCG (MWh)	Net Electricity Supply (MWh)
01/09/2008-31/10/2008	69172.488	6.261	69166.227

For detailed information, Please see CER spreadsheet.

Net electricity supplied to the grid (EG_y) is: 69166.227 MWh;
The baseline emission factor (EF_y) is 0.8473 tCO_2e/MWh;
The baseline emission (BE_y) can be calculated as:

$BE_y = EF_y \times EG_y$ = 69166.227 MWh × 0.8473 tCO_2e/MWh= 58604 tCO_2e

5.4 Emission reductions

$ER_y = BE_y - PE_y - L_y$ =58604-0-0= 58604 tCO_2e

Emission reductions generated in the monitoring period (1 September, 2008 –31 October, 2008) is: 58604 tCO_2e.