



Voluntary Carbon Standard Version 2007.1

VERIFICATION REPORT OF

TADI 16MW HYDROPOWER PROJECT IN ZHEJIANG PROVINCE

Report No: BVC/China-VR0315

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| Verification Report of Tadi 16MW Hydropower Project in Zhejiang Province | Robin Wang Jing |
| Client: | Project Title: |
| Quzhou Tadi Hydro Complex Development Co., Ltd. | Tadi 16MW Hydropower Project in Zhejiang Province |

Template 19 November 2007

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| Summary: | |
| <p>Bureau Veritas Certification has made the verification of Tadi 16MW Hydropower Project in Zhejiang Province, owned by Quzhou Tadi Hydro Complex Development Co., Ltd., which is located in Quzhou City, Zhejiang Province, P.R. China, UNFCCC CDM Registration No.2744 on the basis of Voluntary Carbon Standard (VCS) 2007.1 Program and UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, as well as the host country criteria.</p> <p>The verification scope is defined as a periodic independent review and ex post determination by the Designated Operational Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site visit and interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.</p> <p>The first output of the verification process is a list of Clarification Requests, Corrective Actions Requests, Forward Actions Requests (CLs, CARs and FARs).</p> <p>In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in VCS-PD and validated and registered CDM project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is ready to generate GHG emission reductions. The GHG emission reduction is calculated without material misstatements.</p> <p>Our opinion relates to the project's GHG emissions and the resulting GHG emission reductions viz. Voluntary Carbon Units (VCUs) reported are based on the valid and registered project baseline, monitoring plan and associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, Bureau Veritas Certification confirms following statement:</p> <p>Reporting period: 01/01/20088 to 22/11/20009 Baseline emissions: 97,521 tCO₂e Project emissions: 0 tCO₂e Emission Reductions: 97,521 tCO₂e (VCUs)</p> | |
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Abbreviations

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|------------------|----------------------------------|
| BVC | Bureau Veritas Certification |
| CAR | Corrective Action Request |
| ECPG | East China Power Grid |
| CDM | Clean Development Mechanism |
| CER | Certified Emission Reductions |
| CL | Clarification Request |
| CO ₂ | Carbon Dioxide |
| CO _{2e} | Carbon Dioxide Equivalent |
| DOE | Designated Operational Entity |
| DR | Document Review |
| DRR | Daily Reading Record |
| ETN | Electricity Transaction Notes |
| FAR | Forward Action Request |
| GHG | Greenhouse Gas(es) |
| MoV | Means of Verification |
| MP | Monitoring Plan |
| MR | Monitoring Report |
| MRR | Monthly Reading Record |
| PD | Project Description |
| PDD | Project Design Document |
| P.R. China | People's Republic of China |
| PP | Project Participant |
| VCS | Voluntary Carbon Standard |
| VCU | Voluntary Carbon Unit |
| VVM | Validation & Verification Manual |

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1 INTRODUCTION

Quzhou Tadi Hydro Complex Development Co., Ltd. has commissioned Bureau Veritas Certification (hereafter referred to as “BVC”) to verify the emission reductions of its voluntary emission reduction (VER) project of Tadi 16MW Hydropower Project in Zhejiang Province (hereafter called “the Project”), which is located in Quzhou City, Zhejiang Province, P.R. China for the period from 01/01/2008 to 22/11/2009 prior to its CDM first crediting period.

BVC as the verification body of the Project has been accredited as a DOE by UNFCCC and also meets the competence requirements as set out in ISO 14065:2007.

1.1 Objective

Verification is the periodic independent review and ex post determination by the verification body of the monitored reductions in GHG emissions during defined verification period.

The objective of verification is one-off Verification for the VCUs generated by the Project before its CDM first crediting period as from 23/11/2009, viz. the time is limited in the period start from 01/01/2008 and end on 22/11/2009. The start date of the crediting period is after 28 March 2006; the validation has been contracted before 19/11/2008 (the CDM-PDD of this project has been web hosted in UNFCCC website as a process of validation on 29/01/2008) and completed on 26/06/2009, which is in line with the provision as prescribed in Clause 5.2.1 of VCS 2007.1 Program.

1.2 Scope and Criteria

The verification scope is defined as an independent and objective review of the VCS Project Description (VCS-PD), the project’s baseline study and Monitoring Report (MR) and other relevant documents. The information in these documents is reviewed against VCS 2007.1 requirements, UNFCCC rules and associated interpretations.

VCS 2007.1 Program and UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The verification is not meant to provide any consulting towards the Client. However, stated requests for forward actions and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

1.3 VCS Project Description

The Project managed by Quzhou Tadi Hydro Complex Development Co., Ltd. (hereafter referred to as “the PP”) is located in Quzhou City, Zhejiang Province, P.R. China. The geographic coordinates of the project site are North Latitude 28°58'54”, East Longitude 118°55'37”. The Project consists of four sets of hydro turbines and generators with a total capacity of 16 MW. The type of the turbines is GZTF08B-WP-360 with the unit capacity of 4MW. And the type of the matched generators is SFWG4000-52/4220. After implementation of the Project, the annual expected amount

of electricity supplied to the grid would be 57,842MWh and the area of the reservoir measured in the surface of the water, after the implementation of the Project, when the reservoir is full would be 726,400m². Therefore, the power density of the Project is greater than 22.0 W/m², and the annual expected emission reductions are 52,324tCO₂e.

The Project has been registered as a CDM project on 23/11/2009 (UNFCCC Ref. No. 2744) under approved CDM methodology ACM0002 version 07.

<http://cdm.unfccc.int/Projects/DB/LRQA%20Ltd1247062515.66/view>

Furthermore, the four sets of hydro turbine generator were started to operation on 16/01/2007, 05/02/2007, 04/03/2007 and 07/03/2007 respectively.^[9] And the VCS crediting period for this report is from 01/01/2008 per the requirement of the PP.

1.4 Level of Assurance

The verification report is based VCS-PD, VCS-Monitoring Report (VCS-MR), supporting evidences made available to the verifier and information collected through performing interviews and during the on-site assessment. The verification conclusion is assured by the credibility of all above.

2 METHODOLOGY

The verification is as a desk review and on-site visit including discussions and interviews with selected experts and stakeholders. For the Project, the desk review was implemented on 28/06/2010 in BVC office and the on site visit was implemented on 01/07/2010.

In order to ensure transparency, a verification protocol was customized for the project. according to the VCS2007.1 and Validation and Verification Manual version 01.2, a verification protocol is used as part of the verification. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements the project is expected to meet; and
- It ensures a transparent verification process where the verifier will documents how a particular requirement has been verified and the result of the verification;

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification procedures.

3 VERIFICATION FINDINGS

In the following sections, the findings of the verification are stated. The verification findings for each verification subject are presented as follows:

- 1) The findings (CARs, CLs and FARs) from the desk review of the initial VCS-PD and the VCS-MR and the findings from interviews during the follow up on-site visit are summarized.

2) The conclusions for verification subject are presented.

3.1 Project Implementation

BVC has performed an on-site visit to verify the real implementation of the Project against the description in the VCS-PD of the Project and found that: all the four sets of hydro turbines and generators with unit capacity of 4 MW as described in the VCS-PD have been implemented and commissioned before the date of CDM registration. The type of the turbines is GZTF08B-WP-360 with the unit capacity of 4MW. And the type of the matched generators is SFWG4000-52/4220, fully consistent with the VCS-PD.

BVC has verified and confirmed that the above four units started to operation on 16/01/2007, 05/02/2007, 04/03/2007 and 07/03/2007 respectively. ^[9] The electricity generated has been delivered properly to the East China Power Grid (ECPG) in accordance with the provisions of the Grid Connection Agreement ^[11] signed with the grid company and as indicated in the Electricity Transaction Notes (hereafter referred to as “ETN”) issued by the grid company.

1) Power system ^{[11][12][13]}

As shown in the diagram of the power system connection, the electricity generated by the 1# and 2# generator is delivered to the on-site 1# transformer and the power generated by the 3# and 4# generator is delivered to the on-site 2# transformer. After boosting the electricity from 6kV to 35kV by those transformers, the electricity is transmitted to ECPG through a 35kV line. When the Project fails to generate power or under maintenance, the Project would import electricity from the grid via the same transmission line.

2) Metering system ^{[13][22][23]}

As described in the VCS-PD and MR, the following parameters should be monitored: 1) electricity supplied to the grid by the Project (EG_y), 2) installed capacity of the hydropower plant after the implementation of the project activity (CAP_{PJ}), 3) area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (A_{PJ}).

The electricity supplied to the grid by the Project (EG_y) is continuously measured and monthly recorded by a bidirectional meter located at the connection point between the on-site 35 kV line and the grid. The meter can simultaneously measure the electricity exported to and imported from the grid. The meter was properly installed, maintained, calibrated and recorded according to the requirements defined in the VCS-PD and relevant national standards.

During this monitoring period, as required by the local grid company, this meter was replaced by a new one in the same metering location on 28/03/2008 ^[21]. The model and the accuracy level of the new meter are DSSD5 (A) and 0.5s respectively which are same with the old one. The replacement of the meter was implemented between 14:00-15:00 on/28/03/2008 ^[21], and the electricity generated during this period was not included in the calculation of emission reductions.

The data reporting procedure between the Project and ECPG has been identified and assessed during the on-site assessment. The readings of the meter are daily recorded in the form of Daily Reading Records (DRR)^[19] by the on-duty CDM technical staff of the PP and the records are checked by another CDM technical staff to ensure the

correctness before being archived. The data from these records are summarized and analyzed by the CDM manager on a monthly basis in the form of Monthly Reading Records (MRR)^[19]. Furthermore, the electricity transacted between the Project and grid are jointly confirmed by the two parties every month in the form of ETNs. In order to ensure the completeness of the records of the meter, the PP had taken the effective actions including the installation, adjustment, calibration and continual monitoring for the meter. The ETNs are used to cross-check with the Monthly Reading Records (MRR) of the meter. The data both of MRRs and ETNs have been verified and found the conservative values between them were used for the calculation of emission reductions.

During the on-site visit, BVC found that the fuses of voltage transformer blew out five times during this monitoring period on 30/03/2008, 07/08/2008, 25/12/2008, 24/01/2009 and 20/03/2009 respectively. And new fuses were replaced on 29/04/2008, 19/08/2008, 26/12/2008, 29/01/2009 and 21/03/2009, respectively. Due to these five times fuse blow of voltage transformer, the monitored electricity supplied to the grid by the Project (EG_y) during March, April, August and December of 2008, January and March of 2009 was dramatically deviated from the actual one. However, BVC can confirm that the fuse blow would not affect the electricity measurement of the grid company because the monitoring point of the PP's system and grid company's system are in parallel with each other. Therefore, the monthly monitoring records of the bidirectional meter with accuracy 0.5s located at grid side were used for the calculation of ERs in the above months. The model of the meter is DSSD331B which is owned by the grid company.

After the implementation of the Project, the PP also annually monitors the installed capacity (CAP_{PJ}) and the area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (A_{PJ}) through on-site investigation and corresponding calculation.

3) Calibration ^{[16][17]}

As per the VCS-PD and the Monitoring Plan, the meter at the project site has been installed and calibrated appropriately. The calibrations were implemented by the qualified entity Electric Energy Measurement Center of Quzhou Power Supply Bureau which is accredited by Quzhou Municipal Bureau of Quality and Technical Supervision, complying with the relevant standard. The accreditation certificate for the calibration entity is Qu Fa Ji (2006) No.1 with the valid period from 18/12/2006 to 17/12/2009. The calibration records of the meters as the follow Table 1. Furthermore, the meter at the grid side was also calibrated by Electric Energy Measurement Center of Quzhou Power Supply Bureau. The related calibration information is listed in table 1.

Table 1 Calibration Records of the Meters

| | Model | S/N | Accuracy level | Calibration date | Valid period |
|---------------------------|----------|------------|----------------|------------------|-----------------------|
| Old meter at project site | DSSD5(A) | 3060075385 | 0.5s | 17/12/2007 | 17/12/2007-16/12/2008 |
| New meter at project site | DSSD5(A) | 00196338 | 0.5s | 28/03/2008 | 28/03/2008-27/03/2013 |
| | | | | 10/12/2008 | 10/12/2008-09/12/2009 |
| Meter at grid side | DSSD331B | H000001981 | 0.5s | 13/08/2007 | 13/08/2007-12/08/2008 |
| | | | | 10/05/2008 | 10/05/2008-09/05/2009 |
| | | | | 22/04/2009 | 22/04/2009-21/04/2010 |

BVC has verified the above calibration records issued by the calibrator and accreditation certificate of the calibrator. BVC can conclude that the meters installed are within suitable accuracy level and are calibrated in line with relevant national standards and the VCS-PD, with the valid period covering this monitoring period.

3.2 Monitoring Parameters

According to the VCS-PD and MR, the net electricity supplied to the grid by the Project (EG_y) need be monitored for determining the baseline emission (BE_y), the installed capacity (CAP_{PJ}) and the area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (A_{PJ}) need be monitored for determining the project emission (PE_y).

Net supply of electricity is calculated as:

$$EG_y = EG_{ex} - EG_{im}$$

| | |
|-----------|---|
| EG_y | Net electricity supplied to the grid by the Project |
| EG_{ex} | The electricity exported to the grid by the Project |
| EG_{im} | The electricity imported from the grid by the Project |

According to the monitoring plan of the VCS-PD and diagram of power system connection of the Project, the baseline emissions are to be calculated using the net electricity supplied to the grid by the Project measured by the meter installed at the connection point between the on-site 35 kV line and the grid.

BVC has verified the manual records of the meters and cross checked the data with ETNs covering the period from January 2008 to November 2009, and found that the conservative values between MRRs and ETNs were used for the calculation of baseline emissions.

The installed capacity (CAP_{PJ}) is annually summarized based on the unit capacity description in the nameplate of the on-site installed hydro turbine generators ^[10].

The area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (A_{PJ}) is provided by Quzhou Municipal Water Resource Bureau through on-site investigation and corresponding calculation ^[18].

3.3 Management and Operational System

The VCS-PD and MR has clearly prescribed the management and operational procedures for the various steps involved in the Project, which includes monitoring, recording, archiving of the data of the Project. The procedures are available as a documentation which has been verified by BVC and found to be consistent with the VCS-PD and CDM monitoring methodology ACM0002 Version 07.

3.4 Completeness of Monitoring

The reporting procedures reflect the description of the VCS-PD. The monitoring mechanism with practicable procedures has been verified to be effective and reliable.

The documented evidences and records submitted by the project proponent to determine emission reductions have been verified as of sufficient quantity and appropriate quality.

3.5 Accuracy of Emission Reduction Calculations

The calculation of emission reductions has been verified to be appropriate, conservative and in accordance with the CDM methodology ACM0002 Version 07.

According to the document issued by Quzhou Municipal Water Resource Bureau, the area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (A_{PJ}) in 2008 and 2009 are both 726,400m². And the installed capacity (CAP_{PJ}) in both years is 16,000,000W based on the nameplates of the on-site installed hydro turbine generators. Therefore, the power density of the power plant for both years is 22.0 W/m² (=16,000,000W/726,400m²). As per VCS-PD and ACM0002 Version 07, the project emission of this Project in 2008 and 2009 is zero because the power density of the power plant is greater than 10 W/m².

As per VCS-PD and ACM0002 Version 07, the leakage of the Project would not be considered.

Therefore, the emission reductions are equal to the baseline emissions, with consideration of project emissions and Leakage to be zero:

$$ER_y = BE_y - PE_y - LE_y = BE_y = EG_y \times EF_y$$

Where:

ER_y : Emission Reductions

BE_y : Baseline Emissions

EF_y : GHG Emission Factor of the ECPG, calculated ex-ante and fixed for this reporting period (unit: CO_{2e}/MWh). As per the VCS-PD, the EF_y during this reporting period is 0.9046tCO_{2e}/MWh.

PE_y : Project Emissions

LE_y : Leakage

The net electricity delivered to the grid (EG_y) is the difference between the electricity exported to the grid (EG_{ex}) and the electricity imported from the grid (EG_{im})

$$EG_y = EG_{ex} - EG_{im}$$

According to the VCS-PD, data measured by the meter were cross-checked against the ETN within the same period. BVC has checked MRRs of the meter and ETNs, and found that the conservative values between MRRs and ETNs were used for the calculation of baseline emissions.

The verified electricity exported to and imported from the grid in this monitoring period is as shown in the following Table 2 and Table 3. The cut-off time for electricity exported and imported is 24:00 of the last day of every month.

Table 2 The verified electricity exported to and imported from the grid by the Project in this monitoring period (kWh)

| Period | EG _{ex} in MRR (MWh) | EG _{ex} in ETN (MWh) | Verified EG _{ex} (MWh) |
|--------------------------|-------------------------------|-------------------------------|---------------------------------|
| | a | b | c=min(a,b) |
| 01/01/2008-31/01/2008 | 2,854.600 | 2,844.800 | 2,844.800 |
| 01/02/2008-29/02/2008 | 4,354.280 | 4,339.160 | 4,339.160 |
| 01/03/2008-31/03/2008 | 3,559.080 | 3,559.080 | 3,559.080 |
| 01/04/2008-30/04/2008 | 6,067.320 | 6,067.320 | 6,067.320 |
| 01/05/2008-31/05/2008 | 4,494.280 | 4,479.160 | 4,479.160 |
| 01/06/2008-30/06/2008 | 5,484.360 | 5,463.080 | 5,463.080 |
| 01/07/2008-31/07/2008 | 4,975.880 | 4,961.600 | 4,961.600 |
| 01/08/2008-31/08/2008 | 5,042.800 | 5,042.800 | 5,042.800 |
| 01/09/2008-30/09/2008 | 4,602.080 | 4,587.800 | 4,587.800 |
| 01/10/2008-31/10/2008 | 3,463.320 | 3,453.520 | 3,453.520 |
| 01/11/2008-30/11/2008 | 5,873.840 | 5,854.800 | 5,854.800 |
| 01/12/2008-31/12/2008 | 4,058.040 | 4,058.040 | 4,058.040 |
| Sub-total in 2008 | / | / | 54,711.160 |
| 01/01/2009-31/01/2009 | 1,845.200 | 1,845.200 | 1,845.200 |
| 01/02/2009-28/02/2009 | 3,176.040 | 3,167.920 | 3,167.920 |
| 01/03/2009-31/03/2009 | 7,279.440 | 7,279.440 | 7,279.440 |
| 01/04/2009-30/04/2009 | 6,956.880 | 6,932.240 | 6,932.240 |
| 01/05/2009-31/05/2009 | 5,454.120 | 5,435.080 | 5,435.080 |
| 01/06/2009-30/06/2009 | 6,394.080 | 6,370.280 | 6,370.280 |
| 01/07/2009-31/07/2009 | 5,166.840 | 5,150.320 | 5,150.320 |
| 01/08/2009-31/08/2009 | 7,190.680 | 7,168.280 | 7,168.280 |
| 01/09/2009-30/09/2009 | 3,983.560 | 3,971.520 | 3,971.520 |
| 01/10/2009-31/10/2009 | 2,906.120 | 2,898.560 | 2,898.560 |
| 01/11/2009-22/11/2009 | 3,093.160 | 3,083.080 | 3,083.080 |
| Sub-total in 2009 | / | / | 53,301.920 |
| Total | / | / | 108,013.080 |

Note:

The supplied electricity of March, April, August and December of 2008, January and March of 2009 were quoted from the monitoring records of the bidirectional meter located at the grid side due to fuse blow of voltage transformer.

Table 3 The verified electricity imported from the grid by the Project in this monitoring period (kWh)

| Period | EG _{in} in MRR (MWh) | EG _{in} in ETN (MWh) | Verified EG _{in} (MWh) |
|--------------------------|-------------------------------|-------------------------------|---------------------------------|
| | d | e | f=max(d,e) |
| 01/01/2008-31/01/2008 | 11.200 | 11.760 | 11.760 |
| 01/02/2008-29/02/2008 | 6.720 | 7.000 | 7.000 |
| 01/03/2008-31/03/2008 | 9.240 | 9.520 | 9.520 |
| 01/04/2008-30/04/2008 | 2.800 | 2.800 | 2.800 |
| 01/05/2008-31/05/2008 | 7.560 | 7.840 | 7.840 |
| 01/06/2008-30/06/2008 | 10.920 | 11.480 | 11.480 |
| 01/07/2008-31/07/2008 | 10.640 | 10.920 | 10.920 |
| 01/08/2008-31/08/2008 | 5.600 | 5.880 | 5.880 |
| 01/09/2008-30/09/2008 | 9.520 | 9.800 | 9.800 |
| 01/10/2008-31/10/2008 | 10.920 | 11.480 | 11.480 |
| 01/11/2008-30/11/2008 | 5.320 | 5.600 | 5.600 |
| 01/12/2008-31/12/2008 | 11.760 | 12.320 | 12.320 |
| Sub-total in 2008 | / | / | 106.400 |
| 01/01/2009-31/01/2009 | 19.600 | 20.440 | 20.440 |
| 01/02/2009-28/02/2009 | 10.080 | 10.360 | 10.360 |
| 01/03/2009-31/03/2009 | 2.800 | 2.800 | 2.800 |
| 01/04/2009-30/04/2009 | 4.760 | 4.760 | 4.760 |
| 01/05/2009-31/05/2009 | 7.000 | 7.280 | 7.280 |
| 01/06/2009-30/06/2009 | 9.240 | 9.520 | 9.520 |
| 01/07/2009-31/07/2009 | 12.040 | 12.600 | 12.600 |
| 01/08/2009-31/08/2009 | 2.800 | 2.800 | 2.800 |
| 01/09/2009-30/09/2009 | 12.040 | 12.320 | 12.320 |
| 01/10/2009-31/10/2009 | 9.800 | 10.080 | 10.080 |
| 01/11/2009-22/11/2009 | 6.440 | 6.720 | 6.720 |
| Sub-total in 2009 | / | / | 99.680 |
| Total | / | / | 206.080 |

The electricity supplied and imported by the Project is aggregated into annual basis, shown in the following table 4. The emission factor is determined as 0.9046tCO₂e/MWh in the VCS PD. Therefore, emission reductions for the monitoring period from 01/01/2008 to 22/11/2009 are calculated and presented in the following table 4.

Table 4 The verified net electricity supplied and emission reductions calculation

| Period | EG _{ex} (MWh) | EG _{im} (MWh) | EG _y (MWh) | EF _y (tCO ₂ e/MWh) | Emission Reductions (tCO ₂ e) |
|-----------------------|---------------------------|---------------------------|--------------------------|---|--|
| | c | f | g=c-f | h | i=g×h |
| 01/01/2008-31/12/2008 | 54,711.160 | 106.400 | 54,604.760 | 0.9046 | 49,395 |
| 01/01/2009-22/11/2009 | 53,301.920 | 99.680 | 53,202.240 | 0.9046 | 48,126 |
| Total | | | | | 97,521 |

3.6 Quality of Evidence to Determine Emission Reductions

The critical parameters used for the determination of the Emission Reductions are the installed capacity, the area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full and the reading records of the meters reflecting the electricity exported to and imported from the grid in parallel with the Electricity Transaction Notes issued by the grid company in this reporting period.

The data pertaining to the above parameters is maintained in the identified records and consistent with the values stated in the VCS Monitoring Report version 02.

3.7 Management System and Quality Assurance

BVC confirms that the quality management system for the Project is in place. The documented instructions including the responsibilities have been properly implemented and in line with the VCS-PD. Internal review being a regular practice ensures the quality assurance of the monitoring procedures. The plant manager is responsible for data protection exclusively with access restrictions^[14].

The meters of the Project has been calibrated by Electric Energy Measurement Center of Quzhou Power Supply Bureau and the certificate of calibrator has been checked and verified during the on-site audit^{[16][17]}.

4 VERIFICATION CONCLUSION

BVC has performed a verification of emission reductions generated prior to the CDM registration of Tadi 16MW Hydropower Project in Zhejiang Province (UNFCCC CDM Registration No.2744 registered on 23/11/2009). The verification is based on the currently valid VCS Program 2007.1 released by Voluntary Carbon Standard Association on 18 November 2008.

The management of Quzhou Tadi Hydro Complex Development Co., Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions of the Project on the basis set out within the monitoring procedures in the VCS-PD version 1.0 dated 25/06/2010. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the Project is the responsibility of the management of the project.

BVC verified the VCS Monitoring Report version 02 dated 03/08/2010 for the reporting period as indicated below. BVC confirms that the Project is implemented as planned and described in the registered CDM-PDD and VCS-PD. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the Project has generated GHG emission reductions (VCUs).

BVC can confirm that the GHG emission reduction is calculated without material misstatements. Our opinion relates to the Project's GHG emissions and the resulting GHG emission reductions reported are based on to the valid project baseline, monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, Bureau Veritas Certification confirms the amount of VCUs associated with the project specific monitoring report that has been verified as following statement:

Reporting period : 01/01/2008 to 22/11/2009
 Baseline emissions : 97,521 t CO₂ equivalents.
 Project emissions : 0 t CO₂ equivalents.
 Emission Reductions : 97,521 t CO₂ equivalents (VCUs)

| Period | Emission Reductions |
|-----------------------|--|
| 01/01/2008-31/12/2008 | 49,395 t CO ₂ equivalents (VCUs) |
| 01/01/2009-22/11/2009 | 48,126 t CO ₂ equivalents (VCUs) |



Peter Huang Qin
 Team Leader
 Date: 27/09/2010



Robin Wang Jing
 Internal Reviewer
 Date: 27/09/2010

5 REFERENCE

- [1] VCS Project Description Version 1.0 dated 22/06/2010
- [2] Registered CDM Project Design Document (PDD) version 07 dated 15/06/2009
- [3] CDM Validation Report version 03 dated 26/06/2009
- [4] VCS Monitoring Report version 01 dated 22/06/2010
- [5] VCS Monitoring Report version 02 dated 03/08/2010
- [6] ACM0002 Version 07 dated 14/12/2007
- [7] Validation and Verification Manual version 01.2 dated 30/07/2010
- [8] Technical administrative code of electric energy metering (DL/T 448-2000)
- [9] Starting operation evidences of the Project
- [10] Nameplate and Technical Specification of the purchased hydro turbine generators
- [11] Signed Grid Connection Agreement dated 29/06/2007
- [12] Modification explanation of the signed Grid Connection Agreement issued by Quzhou Power Supply Bureau
- [13] Diagram of power system connection of the Project
- [14] CDM Monitoring & Management Manual
- [15] CDM and monitoring internal Training records
- [16] Certificate of authorization for Quzhou Municipal Bureau of Quality and Technical Supervision, certificate code was Qu Fa Ji (2006) No.1, with valid period from 18/12/2006 to 17/12/2009.
- [17] Calibration Certificates of meters
- [18] Statement of the area of the reservoir measured in the surface of the water, after the implementation of the Project, when the reservoir is full issued by Quzhou Municipal Water Resource Bureau
- [19] Daily/Monthly Reading Records of the Project
- [20] Electricity Transaction Notes(ETNs) from January 2008 to November 2009 issued by the grid company
- [21] Evidence document for the replacement of the bidirectional meter of the Project
- [22] Operation log and Maintenance records of the Project
- [23] Explanation on the fuse blow provided by the PP
- [24] Attendee list of the on-site interview

Persons interviewed:

List persons interviewed during the verification or persons that contributed with other information that are not included in the documents listed above.

- | | | |
|-----|-------------------|--------------------------|
| /1/ | Mr. Xu shengcheng | Manager of the PP |
| /2/ | Mr. Yang Wenlong | Station master of the PP |
| /3/ | Mr. Zhong Yongan | the consultant |
| /4/ | Mr. Lu Ridong | the consultant |