



VCS VERIFICATION REPORT

GUIZHOU QINGSHUIHE GELIBRIDGE
HYDROPOWER PROJECT

(VCS PROJECT ID: 656)



Document Prepared By

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Summary:

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the verification of the emission reductions reported for the project activity “Guizhou Qingshuihe Gelibridge Hydropower Project” (VCS Project ID: 656) for the monitoring period 01/09/2018 to 05/02/2020, to review and determine the monitored reductions in GHG emissions that have occurred as a result of the project activity. These emission reductions are claimed as Verified Carbon Units (VCU) under the Verified Carbon Standard (VCS) version 4.2.

The verification was performed on the basis of VCS Program Guide version 4.1 and VCS Standard version 4.2 for the VCS projects, as well as criteria given to provide for consistent project operations, monitoring and reporting. The verification was conducted by means of document review, follow-up interviews and site inspections, and the resolution of outstanding issues. The verification team identified 0 CAR, 1 CL and 0 FAR in this monitoring period.

In CTI's opinion, the GHG emission reductions reported for the project in the monitoring report (version 2 dated 11/04/2022) are fairly stated. The GHG emission reductions of the monitoring period were calculated correctly on the basis of approved methodology ACM0002 “Consolidated methodology for grid-connected electricity generation from renewable sources” (version 09).

CTI does not assume any responsibility towards the issuance and utilization of the VCUs hereby verified and certified. Request for issuance of VCUs shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration.

The verification of reported emission reductions is based on the information made available to CTI and the engagement conditions detailed in this report. CTI cannot be held liable by any party for decisions made or not

made based on this report.

Hence, CTI is able to certify that the emission reductions from the “Guizhou Qingshuihe Gelibridge Hydropower Project” during the period amount to 611,859 tCO₂e.

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1 INTRODUCTION

Beijing Sindicatum Clean Energy Technology and Services Co., Ltd. has commissioned Shenzhen CTI International Certification Co., Ltd (CTI) to carry out the verification and certification of emission reductions reported for the “Guizhou Qingshuihe Gelibridge Hydropower Project” (the project) for the period 01/09/2018 to 05/02/2020. This report contains the findings from the verification and includes a verification statement for the verified carbon units.

1.1 Objective

Verification is the periodic independent review and ex-post determination by an accredited verification body of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity during a defined verification period.

A verification statement is the written assurance by a verification body that, during a specific period in time, a project activity achieved the emission reductions as verified.

The objective of this verification was to verify and provide a verification statement of emission reductions reported for the “Guizhou Qingshuihe Gelibridge Hydropower Project” for the period 01/09/2018 to 05/02/2020.

1.2 Scope and Criteria

The scope of the verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement;
- To verify that reported GHG emissions data is sufficiently supported by evidence.

The criteria of the verification are:

- VCS Program Guide (version 4.1) /34/
- VCS Standard (version 4.2) /33/ and other relevant requirements defined by Verra;
- The approved methodology ACM0002 (version 09) /36/ applied by the project.

The verification shall ensure that reported emission reductions are complete and accurate in order to be verified.

1.3 Level of Assurance

The verification report expresses a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement. CTI applied a materiality threshold of 1% (for large projects with ER larger than 300,000 tCO₂e per year) with respect to emission or misstatements concerning reported quantities as per para 3.9.1 and 4.1.8 (4) of VCS Standard, v4.2.

1.4 Summary Description of the Project

Sectoral Scope and Project Type

According to the VCS Program Guide (version 4.1) /34/, the project is applicable under the following activity categories:

- Sectoral Scope: 1. Energy (Renewable/non-renewable).

According to Annex A of the Kyoto Protocol, the project is applicable under the Sectoral Scope 1: Energy Industries (renewable/ non-renewable sources).

Project Background

Project title:	Guizhou Qingshuihe Gelibridge Hydropower Project
Project proponent:	Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. (China)
Project location:	Maoyun village in Kaiyang county of Guizhou province, the People's Republic of China
VCS Project ID:	656
Applied methodology:	ACM0002 version 09
VCS project crediting period:	06/02/2010 to 05/02/2020 (the first VCS crediting period)
VCU verification period:	01/09/2018 to 05/02/2020

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification was performed through means of the following three phases in accordance with the requirement of the registered VCS PD, the applied methodology, and the VCS Standard (version 4.2) and other relevant VCS requirements:

- A desk review of the monitoring report and all support documents;
- Follow-up interviews with project stakeholders and site inspection;
- The resolution of outstanding issues and the issuance of the verification report and statement.

The following sections outline each step in more detail.

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- The emission reduction calculations and the relevant data records;
- The calibration and maintenance records for the monitoring instruments;
- The management systems to support the project operation and monitoring.

2.2 Document Review

Based on the requirements of competency, experience and qualified sectoral scopes, CTI appointed a verification team in accordance with CTI's internal procedures.

Function	Name	Technical competence	Task Performance*
Team Leader	Zhang Lei	1.2	☒ DR ☒ SV ☒ RP ☐ TR
Technical Reviewer	Lin Wu	1.2	☒ DR ☐ SV ☐ RP ☒ TR

*DR=Document review; SV=Site visit; RP=Reporting; TR=Technical review

In addition to the VER/VCU monitoring report /1/, emission reduction calculation spreadsheet /2/, registered VCS PD (version 1 dated 25/11/2010) /10/ and its Validation Report (20/05/2011) /11/, the following documents also were assessed as a part of the verification audit:

- Registered CDM PDD (version 08 dated 01/02/2010) /17/;
- Validation Report of registered CDM PDD /18/;
- Approved CDM PDD (version 10 dated 25/02/2011) /12/;
- Validation Opinion of approved CDM PDD /13/;
- Baseline and monitoring methodology ACM0002 applied by the project /36/;
- Relevant decisions, clarifications and guidance from the Verra /33/-/35/; and
- Other information and references relevant to the project activity.

During the desk review, CTI has applied standard auditing techniques to assess the quality of information provided. The following activities were performed:

- A review of the data and information presented to verify their completeness;

- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures; and

An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

2.3 Interviews

On 16/02/2022, CTI visited Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. performed on-site assessment. The key personnel of the project were interviewed or assisted the verification team. Main topics of the interview cover implementation of the project construction, applicability of selected methodology, implementation of project monitoring, emission reduction calculation, etc.

The key personnel interviewed are summarized in the table below:

Interviewed personnel	Role	Organization	Subject
Ms. Mei Xiao	Director	Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. (the project owner)	Operation of the project activity; Implementation of the monitor plan of the project activity; Data collection and data achievement; Calibration of meters and equipment maintenance;
Ms. Zhang Hongying	Operator		
Ms. Ma Kegeng	Operator		
Mr. Chen Qiang	Operator		
Mr. Hu Dazhi	Villager	Local resident	The impact of the project activity; The complaint by local stakeholders; The stakeholder consultation during the operation of the project activity.
Ms. Li Sihua	Villager		
Mr. Chen Youlun	Villager		
Mr. Zhou Xingyou	Villager		
Ms. Xiang zhijiang	Villager		
Mr. Chen Qiang	Staff	Local Environment Protection Bureau	Data collection and ER calculation.
Mr. Jia Baoqiang	CEO	Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.	
Ms. Zhang Min	Director		

2.4 Site Inspections

The verification team performed the on-site verification (Maoyun village in Kaiyang county of Guizhou province, the People's Republic of China) on 16/02/2022. The interviewed personnel and objective are listed in above table. During the on-site assessment, CTI has applied standard auditing techniques to

assess the quality of information provided. The following aspects of the project activity have been verified:

- An assessment of the implementation and operation of the registered project activity is as per the approved CDM PDD (version 10 dated 25/02/2011);
- A review of information flows for generating, aggregating and reporting the monitoring parameters; and
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the approved CDM PDD;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and electricity sale receipts;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the approved CDM PDD and the selected methodology;
- A review of calculations and assumptions made in determining the GHG data and emission reductions; and
- An identification that quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

The data presented in the monitoring report were assessed by review of the detailed project documentation and production records, as well as by interviews with personnel from the project developer Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. and observation of collection of measurements, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. This has enabled the verification team to assess the accuracy and completeness of reported monitoring results, to verify the correct application of the approved monitoring methodology and the determination of the emission reductions.

In addition all parameters required by the monitoring methodology ACM0002 (version 09), and the management system were assessed during the site visit.

2.5 Resolution of Findings

A corrective action request (CAR) shall be raised, where:

- i. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- ii. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- iii. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project proponents.

A clarification request (CL) shall be raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

The verification team identified 0 CAR, 1 CL and 0 FAR in this monitoring period.

2.5.1 Forward Action Requests

A forward action request (FAR) is issued for actions if the monitoring and reporting require attention and/or adjustment for the next monitoring period.

CTI confirmed that there was no FAR identified in previous verification /11/, and no FAR was raised during this verification.

2.6 Eligibility for Validation Activities

The registered CDM PDD of the project activity was validated by TÜV SÜD Industrie Service GmbH on 29/09/2010 /18/. The approved CDM PDD of the project activity was validated by China Quality Certification Centre (CQC) /18/. The registered VCS PD of the project activity was validated by CHINA QUALITY CERTIFICATION CENTRE (CQC) on 20/05/2011 /11/. Two periodic verifications were carried out by CHINA QUALITY CERTIFICATION CENTRE on 05/07/2011 and by LGAI Technological Center, S.A. (Applus+ Certification) on 07/01/2022 under VCS scheme /21/ /23/. 3 periodic verifications were carried out by China Quality Certification Centre (CQC) on 01/06/2011, 28/11/2011 and 21/12/2012 under CDM scheme /25/ /27/ /29/. The verification for the proposed monitoring period 01/09/2018 to 05/02/2020 is the 3rd verification undertaken by CTI and CTI did not verify more than six consecutive years of this project's GHG emission reductions or removals, which satisfies with 4.1.20 of VCS Standard version 4.2.

Furthermore, CTI just undertook verification activities for the project according to the VCS Program Guide. This section is thus not applicable.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity was registered as a CDM project (UNFCCC ID. 3351) on 04/10/2010. A post registration changes (PRC) of the CDM PDD was approved by CDM EB on 07/04/2011 as per UNFCCC website (<https://cdm.unfccc.int/Projects/DB/TUEV-SUED1265278332.26/view>). The details of PRC has been included in section 3.3 of this report. The CDM crediting period of the project activity is 3*7 years renewable and the first CDM crediting period is from 04/10/2010 to 03/10/2017.

3.2 Methodology Deviations

The validation process /18/ has assessed all factors and issues that constitute the basis for emission reductions from the project according to the applicable CDM methodology ACM0002 (version 09) /36/. There was not any methodology deviation applied to this project. Details refer to section 4.1.

3.3 Project Description Deviations

As per Validation Opinion of approved CDM PDD /13/, a deviation happened to the the model of the turbine and generator of the project activity as follows:

Parameters	In the registered CDM PDD	Actual Implementation
Model number	HL234-LJ335	HL233-LJ328
Total installed capacity	150 MW	150 MW
Rotation speed of turbine	214.3 r/min	214.3 r/min
Specific speed	234m.kW (at rated water head 84m)	233.7m.kW (at rated water head 84m)
Diameter of runner	335cm	328cm
Model number	SF75-28/6740	SF75-28/7300
Rated capacity (SN/PN)	88.23 MWA / 75MW	88.23 MWA / 75MW
Power factor	0.85	0.85
Diameter of stator	6740mm	7300mm

As per Validation Opinion of approved CDM PDD /13/, the verification team confirmed that this deviation will not lower the accuracy and conservativeness of the monitoring system and the project remains in compliance with VCS Program rules and this deviation has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

Furthermore, as per registered VCS PD, the crediting period started from 09/02/2010. However, the first turbine-generator set started the commissioning test on 06/02/2010 and the start date VCS crediting period was changed from 09/02/2010 to 06/02/2010. The same has been approved by VERRA in the monitoring report (version 5 dated 14/06/2011) /22/. The change of start date of crediting period has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard.

Except this, there were not project description deviations identified by CTI to this monitoring period or a previous monitoring period. The verification team assessed through visual inspection and document review that all physical features of the proposed project activity including data monitoring, reporting and collecting systems have been implemented in accordance with the approved CDM PDD /10/. Details refer to section 4.1.

3.4 Grouped Project

The project was not a grouped project; hence this clause is not applicable.

4 VERIFICATION FINDINGS

This section summarizes the findings from the verification of the emission reductions reported for the “Guizhou Qingshuihe Gelibridge Hydropower Project” for the period 01/09/2018 to 05/02/2020.

4.1 Project Implementation Status

Project Implementation in accordance with the registered project design document

The project is a run-of-river grid-connected hydro power plant, which is located in Maoyun village in Kaiyang county of Guizhou province, the People's Republic of China. The installed capacity of the project activity is 150 MW, consisting of 2 sets of hydropower turbine generators with unit capacity of 75 MW. The project activity has a reservoir with power density of and a reservoir with power density of 70.10 W/m² at its implementation. The average annual electricity generation is 508GWh and power delivered to the grid by the project is expected to be 497.3 GWh. The actual implementation of the project during this verification period was verified in terms of name plate capacities of each hydro turbine and monitoring equipment. The details of the hydro turbines with respect to installation and capacity have been verified to be consistent with description indicated in the approved CDM PDD. The project started operation on 06/02/2010 and 12/03/2010 respectively for 2 units, which has been verified by site visit interview, checking validation report and verification report of previous monitoring period /18//21//23/ /25/ /27/ 29/. The electricity generated by the project activity was supplied to the South China Power Grid (SCPG), which can be confirmed by the Power Purchase Agreement (PPA) signed between Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. and local Electric Power Company /3/.

The project start date was identified as 06/02/2010 when the first hydro turbine started to operate and began generating GHG emission reductions. As per the registered VCS PD, the 1st VCS crediting period of the project is determined as from 06/02/2010 to 05/02/2020. The selected monitoring period is from 01/09/2018 to 05/02/2020, which is within the 1st VCS crediting period.

All the monitoring system in operation period is consistent with the approved CDM PDD. The control system at the power plant is automated and assures continuous operation, including monitoring on

malfunction of equipment. By checking the daily operation and maintenance records /6/, CTI can confirm that no serious malfunction happened and the plant was under a normal operation as expected in this monitoring period.

On-site training for the related procedures including monitoring, recording and reporting was verified to be in place /5/ and their implementation was confirmed by interview with the key operators and observing the operation.

As part of the site visit, CTI confirms that the project implementation is in accordance with the approved CDM PDD (version 10 dated 25/02/2011) The verification team confirmed through visual inspection and document review that all physical features of the proposed project activity including data collection systems and storage systems have been implemented in accordance with the approved CDM PDD (version 10 dated 25/02/2011).

Compliance of monitoring plan with monitoring methodology

CTI is able to confirm that the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011) is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 09).

Compliance of monitoring with the monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011). CTI confirms that all parameters stated in the monitoring plan are monitored and reported appropriately. All parameters required to be monitored by the monitoring plan as per the monitoring methodology ACM0002 (version 09) and the management system were assessed during the site visit. The monitoring report lists each parameter required by the monitoring plan and the information flow (i.e. from data generation, aggregation, recording, calculation and reporting) for these parameters is provided. The information flow for the each parameter is further verified in the following sections.

Parameters monitored

According to the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011), monitoring parameters of the project are verified as follows:

Net electricity supplied by the project activity to the grid ($EG_{out,y}$) / The amount of electricity received from the South China Power Grid, which is consumed by the project annually ($EG_{in,y}$)

During this monitoring period, the parameter $EG_{out,y}$ and $EG_{in,y}$ were continuously measured by 4 electricity meters installed at the power grid interface in each of the two connection lines (line 1 and line 2), in which 2 bi-directional electricity meters $E3_{L1}$ and its backup meter $E4_{L1}$ in line 1 and the other 2 bi-directional electricity meters $E3_{L2}$ and its backup meter $E4_{L2}$ in line 2. The meter readings were manually recorded at 00:00 on a daily basis and insert into weekly and monthly spreadsheet (Monthly Reading Records - MRRs) /7/, and archived electronically. Meter reading from $E3_{L1}$ installed in line 1 and $E3_{L2}$ installed in line 2 are used for calculation of emission reductions of this project activity, in case $E3_{L1}$ and/or $E3_{L2}$ is not working, $E4_{L1}$ and/or $E4_{L2}$ will be used as reference. By checking operation log /6/, it is confirmed that all the four meters are working well.

The cut-off time was 24:00 hr of last day of each month. At the cut-off time, the staff from project developer and the grid company read the electricity meters together. The staff from power grid company record electricity meter's readings and then transcribes the data into Electricity Invoices and issued the Electricity Invoices based on the difference value between $EG_{out,y}$ and $EG_{in,y}$ /8/. $EG_{out,y}$ and $EG_{in,y}$ were sourced from Meter Reading Records (MRRs) /7/ issued by the project developer issued by power grid company covering monitoring period. Data in the monthly reading records were used to the report, through a cross check with Electricity Invoices, and the conservative values were applied to calculate Net electricity supplied by the project activity to the grid.

As described above, the meters have been installed in accordance with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011). CTI has on-site checked the location of the meters against the diagram of power connection system and found them to be consistent. The data reported in the monitoring report and ERs calculation spreadsheet has been verified by the verification team. Supporting references and data required to determine net electricity supplied by the project activity to the grid (EG_y) is found to be complete and transparent.

Total electricity produced by the project activity, including the electricity supplied to the grid and the electricity supplied to internal loads in year y (TEG_y)

During this monitoring period, the parameter TEG_y was continuously measured by 4 electricity meters, in which 2 bi-directional electricity meters $E1_{L1}$ and it backup meter $E2_{L1}$ in line 1 and the other 2 bi-directional electricity meters $E1_{L2}$ and it backup meter $E2_{L2}$ in line 2. The meter readings were manually recorded on a daily basis and insert into weekly and monthly spreadsheet, and archived electronically. By checking approved CDM MR of previous monitoring period, it is confirmed that this parameter is only for operational purpose, not used for emission reductions calculation.

As described above, the meters have been installed in accordance with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011). CTI has on-site checked the location of the meters against the diagram of power connection system and found them to be consistent.

Installed capacity of the hydropower plant after the implementation of the project activity (Cap_P)

By checking Nameplate of hydropower turbines and generators, it is confirmed by the verification team the installed capacity of project activity is 150,000,000 W, which is consistent with that in the approved CDM PDD /10/. The parameter will be checked annually.

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})

By checking Survey Report issued by China Hydropower Consultant Group Guiyang Exploration Design Research Institute /19/, it is confirmed the area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full through the whole monitoring period is as follows and the parameter will be checked annually.

Year	A_{PJ} (m ²)	Measurement date as confirmed by the verification team
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2018	2,070,000	20/08/2018
2019	2,080,000	20/08/2019
2020	2,110,000	20/08/2020

Quantity of fuel type i combusted in process j during the year y ($FC_{i,j,y}$)

During site visit, it is confirmed the backup diesel generator is used for backup purposes only. Fuel consumption will be monitored by means of fuel purchase receipts and stock beginning/end reporting period. By checking Fuel stock taking logs /30/, it is confirmed 0.11t diesel was consumed during this monitoring period.

Net caloric value of fuel i ($NCV_{i,y}$)

$NCV_{i,y}$ is verified through checking the consistency of local/national data with default values by the IPCC annually. By checking China Energy Statistical Yearbook 2020 /31/, it is confirmed that $NCV_{i,y}$ is 42.652GJ/t, which fall in the range of the IPCC default values provided in Table 1.2 of Chapter 1, Volume 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories.

CO₂ emission factor per unit of energy for fuel i ($EF_{CO2,i,y}$)

$EF_{CO2,i,y}$ is verified through checking the latest version IPCC guidelines. During this monitoring period, $EF_{CO2,i,y}$ is IPCC default value as provided in Table 1.4 of Chapter 1, Volume 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories, which was 0.0748tCO₂e/GJ.

Monitoring equipment and calibration

The meters have been calibrated periodically as per the relevant industrial standard by the qualified third party to ensure the monitoring equipments' accuracy and in good conditions. The relevant information of meters' calibration is listed as below.

Meter	Manufacturer/Model No.	Serial Number	Accuracy	Calibration date	Valid until
E3 _{L1}	EDMI/2000-6E20	208368562	0.2S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E4 _{L1} (backup)	EDMI/2000-6E20	208368565	0.2S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E3 _{L2}	EDMI/2000-6E20	208368563	0.2S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020

E4 _{L2} (backup)	EDMI/2000-6E20	208368572	0.2S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E1 _{L1}	EDMI/2000-A605	207502248	0.5S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E2 _{L1} (backup)	EDMI/2000-A605	207502257	0.5S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E1 _{L2}	EDMI/2000-A605	207502246	0.5S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020
E2 _{L2} backup	EDMI/2000-A605	207502242	0.5S	28/07/2017	27/07/2018
				27/07/2018	26/07/2019
				26/07/2019	25/07/2020

The meters were calibrated by State Grid Guizhou Power Company Electricity Science Research Institute. Calibration records and accreditation certificates /14//15/ have been verified by the verification team. The accuracy of meters is comply with that in the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011). By checking the industrial metering configuration standard “Technical Administrative Code of Electric Energy Metering (DL/T 448-2016)” /16/, CTI can confirm that the accuracy level of all meters meets the requirement stipulated in this standard. CTI can thus confirm that the accuracy of the meters is in line with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011) and relevant industry standard.

In the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011), it stated that the meters will be calibrated and checked annually for accuracy. By checking the calibration reports, CTI found the calibration frequency of these meters is annual, which is in line with the calibrating standard “Technical Administrative Code of Electric Energy Metering (DL/T 448-2016)” /16/. Hence, CTI can confirm that the meters’ calibration frequency is in line with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011) and relevant industry standard, and the calibrations of meters are verified to be valid for the whole reporting period.

Data management and control

Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. is responsible for operation and routine maintenance of power plant under the project activity. The quality assurance and quality control

procedures have been addressed in the VER project management and monitoring manual /4/, including the organization structure with the responsibilities, personnel competencies, monitoring procedures and monitoring management. By interview with the staff and check records /4/-/6/ during on-site visit, it can be confirmed that the monitoring management system is implemented following the project management and monitoring manual.

All monitoring devices have been calibrated and maintained periodically to ensure the accuracy of measurement. Calibration records of instruments used in measurements were made available during the verification visit and found to be valid for the entire period of the verification. Competence and training records of in-plant personnel engaged in measurement of plant parameters were presented during verification and found to be in order.

By checking UNFCCC website (<https://cdm.unfccc.int/Projects/DB/TUEV-SUED1265278332.26/view>), it is confirmed by CTI that the project has been registered as CDM project activity on 04/10/2010 with reference No. 3351.

Furthermore, CTI checked public information from IREC Mechanism database of China, Chinese Emission Trading System, Gold Standard Registry and interviewed with project owner during site visit, it is confirmed that except CDM, VCS scheme, the project has not been participated or been rejected under any other GHG programs or environmental credits since validation or previous verification.

Therefore, the verification team confirmed that the project only applies CERs and VCUs under CDM and VCS standard, and no rejection from CDM or VCS standard occurs, there are no other forms of environmental credits applied or issued for the project activity.

The emission reduction resulted from the project during this monitoring period would apply for VCUs. The forms of credits applied or issued for the project activity is as follows:

Start Date	End Date	GHG Emission Reduction (tCO ₂ e)	Credit	Program
06/02/2010	03/10/2010	235,894	VCU	VCS
04/10/2010	31/10/2010	57,401	CER	CDM
01/11/2010	31/08/2011	235,018	CER	CDM
01/09/2011	31/08/2012	425,174	CER	CDM
01/09/2012	31/08/2018	2,609,525	In requesting for VCUs	VCS

By checking China's National Plan on Implementation of the 2030 Agenda for Sustainable Development and 17 SDGs defined by UNDP, and interviewing with stakeholders during site visit, CTI confirmed that the project would contribute to sustainable development in as below:

- SDG 13: Reducing greenhouse gas emissions compared to a business-as-usual scenario. During this monitoring period, the emission reductions achieved were 611,859tCO₂e.
- SDG 7: Providing clean and renewable energy source and displacing the power generation of fossil fuel power plants, reducing pollution emissions caused by coal burning significantly, thus mitigating the

air pollution and its adverse impacts on human health, promoting sustainable economic development in local area. During this monitoring period, the renewable energy supplied to CSPG was 785,043.6MWh.

- SDG 8: Providing direct and indirect employment opportunities during construction and operation period, which promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for local residents. Furthermore, the project activity contributes to infrastructure improvements, including road access; mobile phone coverage and fixed-line telephones installed; internet access to the village; improved access to potable water and water for localized irrigation; cheaper electricity for the villages directly adjacent to the power plants.

The technical parameters have been verified with the nameplates /9/ as below:

Items	Parameter
Total installed capacity	150 MW
Model for the turbines (EPC / installed)	HL233-LJ-328
Model for the generators (EPC /installed) *	SF75-28/7300
Normal water level	719m
Reservoir size under normal water level	2.13km ²
Rated water head	84m
Average flow rate over years	82.3m ³ /s

The verification team confirmed that there is no proposed or actual change to the approved CDM PDD during this monitoring period. All required equipments and procedures are available and implemented in an appropriate manner. All necessary monitoring instruments are installed. All required instruments including standby and operating procedures for the same have been implemented in an appropriate manner. The project is completely operational and the same has been confirmed on-site. Neither mistakes nor malfunction on main meters have been observed during this monitoring period.

4.2 Safeguards

4.2.1 No Net Harm

By checking the EIA summary and conclusion provided in the approved CDM PDD, it is confirmed that hydro power is green power and the impact caused by hydro power on the surrounding ecosystem and residents, wastewater, solid waste and atmosphere etc. is very little, there would be no net harm caused due to the project activity. Also, the EIA of the project are approved by the government.

Also, no potential environment or social economic matter was found during the site visit. The project is renewable energy project and thus no net harm observed in air or water quality on-site.

4.2.2 Local Stakeholder Consultation

As per the approved CDM PDD, on 22/11/2006 and 24/11/2006, the local stakeholder's meeting was held during the EIA stage. Local stakeholders, including resident, Environmental Protection Bureau (responsible for the approval of project EIA) and the local Development and Reform Committee (DRC responsible for project approval).

A stakeholder consultation survey was conducted on April 2007 through distributing a one-page questionnaire, which was designed to be easily filled in. 99 copies of questionnaire were distributed and 99 pieces of reply were received. 99 participants filled in the questionnaires included local residents. The opinions expressed by the stakeholders were recorded and are available on request. The survey showed that the proposed project receives strong support from the local community.

By checking grievance books and interview with local stakeholders during on-site visit, the verification team confirmed that on-going communications with Local stakeholders was being carried out by the project owner during this monitoring period and no negative comments received for the project.

Via interviewing with staff from local environmental protection bureau and local residents during the site visit, it is confirmed by the verification team that during the implementation stage of this monitoring period, local authority has conducted spot checks on the implementation of the project periodically as per the request from the local governments' regulations. It is confirmed by the verification team that there were no negative comments and issues from the local stakeholders during this monitoring period and the project passed all the periodic spot checks by local government.

4.3 AFOLU-Specific Safeguards

For non-AFOLU projects, this section is not required.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

CTI confirms that appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed, and the assumptions, emission factors and default values that are applied in the calculation have been justified.

According to the applied methodology, the emission reductions are determined as the difference between the baseline emissions, project emissions and leakage:

$$ER_y = BE_y - PE_y - LE_y$$

Baseline emissions

As per approved CDM PDD, Baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity, calculated as follows:

$$BE_y = (EG_y - EG_{\text{baseline}}) \times EF_{\text{grid,CM,y}}$$

Where:

BE_y = Baseline emissions in year y (tCO₂e/y);

EG_y = Net electricity supplied by the project activity to the grid (MWh);

$EG_{baseline}$ = Baseline electricity supplied to the grid in the case of modified or retrofit facilities(MWh). For new power plants this value is taken as zero;

$EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO₂e/MWh).

Since this project installs a new grid- connected renewable power plant/unit, $EG_{baseline} = 0$; therefore, $BE_y = EG_y * EF_{grid,CM,y}$.

For the project activity:

$$BE_y = EG_y * EF_{grid,CM,y} = (EG_{out,y} - E_{in,y}) * EF_{grid,CM,y}$$

Combined margin CO₂ emission factor for grid connected power generation in year y ($EF_{grid,CM,y}$)

$EF_{grid,CM,y}$ is the grid emission factor of the which has been verified ex-ante in the validation stage in the approved CDM PDD (version 10 dated 25/02/2011) /10/ as 0.7794 tCO₂e/MWh.

During this monitoring period, BE_y is calculated as:

Year	Electricity Meter Readings by meter E3 _{L1} and E3 _{L2}				Electricity Invoices	Value used for ER calculation	$EF_{grid,CM,y}$ (tCO ₂ e/MWh)	BE_y (tCO ₂ e) $BE_y = EG_y * EF_{grid,CM,y}$
	TEG_y^* (MWh)	$EG_{out,y}$ (MWh)	$E_{in,y}$ (MWh)	EG_y (MWh)	EG_y (MWh)	EG_y (MWh)		
	A	B	C	D=B-C	E	F=Min(D,E)		H=Rounddown(F*G)
01/09/2018-31/12/2018	132,004.6	130,947.3	22.0	130,925.3	130,925.3	130,925.3	0.7794	102,043
01/01/2019-31/12/2019	621,634.8	616,819.5	183.7	616,635.8	616,635.8	616,633.6	0.7794	480,604
01/01/2020-05/02/2020	38,173.6	37,489.1	4.4	37,484.7	63,673.5	37,484.7	0.7794	29,215
In total	791,813.0	785,255.9	210.1	785,045.8	811,234.6	785,043.6	-	611,862

*Note: parameter TEG_y is only for operational purpose, not used for emission reductions calculation. The amount of electricity from 01/02/2020 to 05/02/2020 has been confirmed through checking daily reading record. The rationality of value from has daily reading record been crosschecked with value of TEG_y .

Project emissions

According to FSR and by checking Nameplate of hydropower turbine and generator during site visit, it is confirmed that the installed capacity of the project (Cap_P) is 150,000,000W. By checking Survey Report issued by China Hydropower Consultant Group Guiyang Exploration Design Research Institute /19/, it is confirmed 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 corresponding power density of the project through the whole monitoring period is:

Year	Cap _{PJ} (W)	APJ (m2)	Power Density (W/m ²)
2018	150,000,000	2,070,000	72.46
2019	150,000,000	2,080,000	72.12
2020	150,000,000	2,110,000	71.09

Based on ACM0002 version 09, the power density is greater than 10 W/m², the project emission due to installation of reservoir is 0 tCO₂e.

As per approved CDM PDD, the project emissions due to back up diesel generator was calculated as:

$$PE_{FC,j,y} = \sum_i FC_{i,j,y} \times COEF_{i,y}$$

Where:

PE_{FC,j,y} = CO₂ emissions from fossil fuel combustion in process j during the year y (tCO₂e/y);

FC_{i,j,y} = Quantity of fuel type i combusted in process j during the year y (mass or volume unit/y);

COEF_{i,y} = CO₂ emission coefficient of fuel type i in year y (tCO₂e/mass or volume unit); i are the fuel types combusted in process j during the year y.

The CO₂ emission coefficient COEF_{i,y} can be calculated using one of two options depending on the availability of data. We have opted to calculate COEF_{i,y} based on Option B as public data is available:

$$COEF_{i,y} = NCV_{i,y} \times EF_{CO2,i,y}$$

Where:

COEF_{i,y} = CO₂ emission coefficient of fuel type i in year y (tCO₂e/t);

NCV_{i,y} = Weighted average net calorific value of the fuel type i in year y (GJ/t);

EF_{CO2,i,y} = Weighted average CO₂ emission factor of fuel type i in year y (tCO₂e/GJ); i are the fuel types combusted in process j during the year y.

During this monitoring period, PE_y is calculated as:

Period	FC _{i,j,y} (t)	COEF _{i,y} (tCO ₂ e/t)	PE _y (tCO ₂ e)
01/09/2018 - 31/12/2018	0.03	3.19	1
01/01/2019 - 31/12/2019	0.07	3.19	1
01/01/2020 - 05/02/2020	0.01	3.19	1

In total	0.11	3.19	3
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As justified above, COEF_{i,y} is calculated as: NCV_{i,y} * EF_{CO2,i,y} = 3.19 tCO₂e/t.

Leakages

Leakage does not need to be counted this project as per the approved CDM PDD and ACM0002 version 09.

Emission reductions

The emission reductions for this monitoring period was calculated as:

Monitoring period	GHG emission reductions or removals (tCO ₂ e)
01/09/2018-31/12/2018	102,042
01/01/2019-31/12/2019	480,603
01/01/2020-05/02/2020	29,214
Total ERs claimed (in 523 days)	611,859

Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered VCS PD

The emission reductions claimed are 611,859 tCO₂e in this monitoring period (i.e. 523 days). Compared with the expected emission reductions 555,340 tCO₂e (calculated as 387,570 tCO₂e/365d×523d) in the registered VCS PD, the reported emission reductions in this monitoring period are 10.18% more than the expected. By checking Reservoir inflow forecast and power generation plan of this monitoring period /32/, it is confirmed that this is resulted from the increased water flow in the flood season to the River.

By checking the sensitivity analysis in the approved CDM PDD, it is confirmed that when the electricity generation increased by 44.7%, the IRR will reach the benchmark. Therefore, CTI Verification Team confirmed that the fluctuation of emission reductions in this monitoring period will not impact the additionality of the project activity.

In conclusion, CTI is able to confirm that the actual power supply and also emission reductions reported in this monitoring period are reasonable and appropriate. CTI verified the input data for calculating emission reductions and the calculating process, and confirmed the result were complete and transparent.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

All necessary documentations are collected, referenced and aggregated, which is easily accessible in hard-copy or electronic format. Measurements are performed by calibrated equipment, and the key data can also be cross-checked via other sources, such as records, receipts and inventory data. No assumptions are used that have any material influence on reported emission reductions.

CTI concludes that during this monitoring period, the evidences for determination of emission reductions are sufficient and reasonable, and the calculation of emission reductions is reliable.

4.6 Non-Permanence Risk Analysis

The project is not AFOLU project, and thus non-permanence risk analysis is not applicable for the project.

5 VERIFICATION CONCLUSION

Shenzhen CTI International Certification Co., Ltd (CTI) has performed the verification of the emission reductions that have been reported for the project activity “Guizhou Qingshuihe Gelibridge Hydropower Project” in China (VCS Project ID: 656) for the period 01/09/2018 to 05/02/2020.

The verification is based on the baseline and monitoring methodology ACM0002 (version 09), Approved CDM PDD (version 10 dated 25/02/2011) and the monitoring report (version 2 dated 11/04/2022). The verification consisted of the following three phases:

- i) desk review of the project design and the baseline and monitoring plan;
- ii) follow-up interviews with project stakeholders;
- iii) resolution of outstanding issues and the issuance of the final verification and certification report.

The project proponents are responsible for the collection, calculation and determination of the GHG data in accordance with the monitoring plan and the reporting of GHG emission reductions on the basis set out within the project monitoring report.

Our verification approach was based on the requirements as defined under the applicable VCS version 4.2 and relevant UNFCCC requirements. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification can confirm that:

- the project is implemented and operated as per approved CDM PDD;
- the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011) is as per the applied methodology;

- the monitoring complies with the monitoring plan contained in the approved CDM PDD (version 10 dated 25/02/2011);
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS version 4.2 and CDM requirements;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

It is CTI's responsibility to provide an independent verification statement on the reported GHG emission reductions for the project. Based on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these, CTI planned and performed our work to obtain the information and explanations that we considered necessary to provide reasonable assurance that reported GHG emission reductions are fairly stated.

CTI does not assume any responsibility towards the issuance and utilization of the VCU's hereby verified and certified. Request for issuance of VCU's shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration.

The verification of reported emission reductions is based on the information made available to CTI and the engagement conditions detailed in this report. CTI cannot be held liable by any party for decisions made or not made based on this report.

In CTI's opinion the GHG emissions reductions of the "Guizhou Qingshuihe Gelibridge Hydropower Project" for the period 01/09/2018 to 05/02/2020 are fairly stated in the monitoring report (version 2 dated 11/04/2022). The GHG emission reductions were calculated correctly on the basis of the approved methodology ACM0002 (version 09) and the Approved CDM PDD (version 10 dated 25/02/2011).

CTI can confirm that the GHG emission reductions are calculated without material misstatements. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, CTI confirms the following statement:

Verification period: From 01/09/2018 to 05/02/2020

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01/09/2018 - 31/12/2018	102,043	1	0	102,042

01/01/2019 - 31/12/2019	480,604	1	0	480,603
01/01/2020 - 05/02/2020	29,215	1	0	29,214
Total	611,862	3	0	611,859

Zhang Lei

Mr. Zhang Lei

Team Leader

27/04/2022

Wu Lin

Mr. Lin Wu

Technical Reviewer

27/04/2022

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CTI	Shenzhen CTI International Certification Co., Ltd
DOE	Designated Operational Entity
EF	Emission Factor
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
MP	MONITORING REPORT
MR	Monitoring Report
SCPG	South China Power Grid
PD	Project Description
PP	Project Proponent
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCES

Documentation used to verify the information provided by the project proponents

- /1/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: VER/VCU Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project, version 1 dated 08/01/2022 and version 2 dated 11/04/2022.
- /2/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: Emission reduction calculation spreadsheet for Guizhou Qingshuihe Gelibridge Hydropower Project, version 1 dated 08/01/2022
- /3/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd. and local Electric Power Company: Power Purchase Agreement for Guizhou Qingshuihe Gelibridge Hydropower Project.
- /4/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd.: VER monitoring manual and management procedure.
- /5/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd.: Records of training for on-site staff.
- /6/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd.: Operation log sheets, from 01/09/2018 to 05/02/2020.
- /7/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd.: Monthly reading records (MMRs) of Guizhou Qingshuihe Gelibridge Hydropower Project from 01/09/2018 to 05/02/2020.
- /8/ local Electric Power Company: Monthly Electricity Invoices from 01/09/2018 to 05/02/2020.
- /9/ Guizhou Wujiang Qingshuihe Hydropower Development Co., Ltd.: nameplate of the equipment.
- /10/ VERRA website: registered VCS PD, version 1 dated 25/11/2010.
- /11/ VERRA website: Validation Report of registered VCS PD, 20/05/2011.
- /12/ UNFCCC website: approved CDM PDD, version 10 dated 25/02/2011.
- /13/ China Quality Certification Centre (CQC): Validation opinion of revised monitoring period, dated 09/03/2011.
- /14/ China National Accreditation Service for Conformity Assessment (CNAS): Accreditation certificate of State Grid Guizhou Power Company Electricity Science Research Institute valid till 13/09/2024.
- /15/ State Grid Guizhou Power Company Electricity Science Research Institute: Calibration certificates for meters covering this monitoring period.

- /16/ State Economic and Trade Commission: Technical administrative code of electric energy metering (DL/T 448-2016).
- /17/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: the registered CDM PDD, version 08 dated 01/02/2010.
- /18/ TÜV SÜD Industrie Service GmbH: the Validation Report for registered CDM PDD dated 29/09/2010.
- /19/ Survey Report issued by China Hydropower Consultant Group Guiyang Exploration Design Research Institute.
- /20/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: VER/VCU Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 01/09/2012 - 31/08/2018, version 2 dated 07/01/2022.
- /21/ LGAI Technological Center, S.A. (Applus+ Certification): Verification Report for Guizhou Qingshuihe Gelibridge Hydropower Project of previous monitoring period, version 01.0 dated 07/01/2022.
- /22/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: VER/VCU Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 06/02/2010 - 03/10/2010, Version 5 dated 14/06/2011.
- /23/ CHINA QUALITY CERTIFICATION CENTRE (CQC): Verification Report for Guizhou Qingshuihe Gelibridge Hydropower Project of previous monitoring period, version 5.0 dated 05/07/2011.
- /24/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: CDM Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 04/10/2010 - 31/10/2010
- /25/ CHINA QUALITY CERTIFICATION CENTRE (CQC): Verification Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 04/10/2010 - 31/10/2010, version 2 dated 01/06/2011.
- /26/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: CDM Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 01/11/2010 - 31/08/2011
- /27/ CHINA QUALITY CERTIFICATION CENTRE (CQC): Verification Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 01/11/2010 - 31/08/2011, version 2.0 dated 28/11/2011.
- /28/ Beijing Sindicatum Clean Energy Technology and Services Co., Ltd.: CDM Monitoring Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 01/09/2011 - 31/08/2012.
- /29/ CHINA QUALITY CERTIFICATION CENTRE (CQC): Verification Report for Guizhou Qingshuihe Gelibridge Hydropower Project of monitoring period 01/09/2011 - 31/08/2012, version 1.0

dated 21/12/2012.

- /30/ Fuel stock taking logs covering this monitoring period
- /31/ China Energy Statistical Yearbook 2020
- /32/ Reservoir inflow forecast and power generation plan covering this monitoring period

Methodologies, tools and other guidance

- /33/ Verified Carbon Standard: VCS Standard, version 4.2.
- /34/ Verified Carbon Standard: VCS Program Guide, version 4.1.
- /35/ Verified Carbon Standard: Registration and Issuance Process, version 4.0.
- /36/ UNFCCC EB: Approved methodology, ACM0002, version 09

APPENDIX C: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

Table 1: Clarification Requests

CL ID	Clarification Request	Response by Project Proponent	Verification Team Assessment
01	By checking the approved CDM MR of previous monitoring period, it is verified that the first turbine started operation on 09/02/2010. Also, by checking registered VCS PD, it is verified that the first VCS crediting period is from 09/02/2010 to 08/02/2020. As per the MR (version 1 dated 08/01/2022), the project start date was 06/02/2010 (operation start date of first turbine) and the first VCS crediting period is from 06/02/2010 to 05/02/2020. Therefore, CL 01 was raised requesting PP to clarify the reason of the difference.	The information provided in the CDM MR is not complete. As stated on page 1 of VCS MR (version 5) dated on 14/06/2011, "Partial operation of the project (1 of 2 turbines) commenced on 09/02/2010 and full operation (2 of 2 turbines) started on 12/03/2010. Prior to partial operation of the project, the engine underwent a commissioning test from 06/02/2010 to 08/02/2010, during which electricity was generated and supplied to the local power grid'. It is reconfirmed on page 3 of VCS MR that the project start date is 06/02/2010. By checking the issuance of the VCS MR1, the starting date is 06/02/2010 too. The project start date is taken as the start date of the crediting period in accordance with the VCS rules, hence it is confirmed that the start date of the first crediting period of this project activity is 06/02/2010.	The first turbine-generator set started the commissioning test on 06/02/2010 and the start date VCS crediting period was changed from 09/02/2010 to 06/02/2010. The same has been approved by VERRA in the monitoring report (version 5 dated 14/06/2011). A project deviation in relation with change of the start date of crediting period has been supplemented in the MR (version 2 dated 11/04/2022). The change of start date of crediting period has no impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario and meet all appropriate rules and requirements of VCS standard. Therefore, CL 01 was closed.

Table 2:Corrective Action Requests

CAR ID	Corrective Action Request	Response by Project Proponent	Verification Team Assessment
NA	NA	NA	NA

Table 3: Forward Action Requests

FAR ID	Forward Action Request	Response by Project Proponent	Verification Team Assessment
NA	NA	NA	NA