

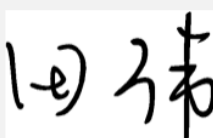


**Verified Carbon
Standard**

GANSU HUANGHE BINGLING HYDROPOWER STATION PROJECT



Report ID	0104020324008(001)
Project title	Gansu Huanghe Bingling Hydropower Station Project
Project ID	453
Verification period	01-January-2016 to 03-August-2018
Original date of issue	24-September-2024
Most recent date of issue	14-March-2025
Version	Version 03.1
VCS Standard Version	Version 4.7 of the VCS Standard

Client	Gansu Diantou Bingling Hydropower Development Co., Ltd.
Prepared by	China Classification Society Certification Co. Ltd. (CCSC)
Approved by	Mr. Tian Wei, General Manager 
Work carried out by	Team Leader: LI Xingtong Team Members: TAN Wenbin Technical Reviewers: TANG Zhiang, PIAO Lijing

Summary:

China Classification Society Certification Co. Ltd. (CCSC) has performed the verification of the emission reductions reported for the project activity “Gansu Huanghe Bingling Hydropower Station Project” (VCS Project ID:453) for the monitoring period 01-January-2016 to 03-August-2018 within the 1st VCS crediting period 04-August-2008 to 03-August-2018, 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 VCS Standard Version 4.7.

- A brief description of the verification and the project.**

The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous prefecture in Gansu Province, P.R.China. The site location's approximate coordinates are north latitude 35°49'27" and east longitude 102°59'25". The project is new reservoir hydropower project. The installed capacity of the project is 240MW consisting of 5 hydro turbines and 5 generators with unit capacity of 48MW. The electricity generated by the project is supplied to North West China Power Grid.

The project activity was registered as a CDM project with Ref.1985 on 12-February-2009 and the renewable crediting period was selected starting on 12 -February- 2009. The project has been registered as VCS project with VCS ID. 453 under VCS Standard Version 2007.1 with the crediting period start date 04-August-2008 when the commencement of operations activities started as confirmed by checking the Commissioning Report, operation logs and the VCS monitoring report and verification report for the period of 04-August-2008 to 11-February-2009.

- The purpose and scope of verification.**

The objective of the verification is to have an independent review ex post determination by a VVB (Validation and Verification Body) of the monitored GHG emission reductions that have occurred as a result of the implementation of the project activity during a defined monitoring period.

- **The monitoring period.**

This is the 4th Monitoring period started from 01-January-2016 to 03-August-2018.

- **The method and criteria used for verification.**

Verification is conducted using China Classification Society Certification Co. Ltd. (CCSC) procedures in line with the requirements specified in the latest version of the VCS Validation and Verification Manual and applying auditing techniques. The verification team assessed the project activity's compliance against the VCS Version 4.7, the selected methodology and the project monitoring report. The verification criteria followed the guidance documents provided by VCS included the following: VCS Version 4.7, VCS Program Guide Version 4.4, and the applied CDM methodology The approved CDM methodology ACM0002 (version 6).

- **The number of findings raised during verification.**

In the course of the verification, 3 Corrective Action Requests (CARs), 1 Clarification Requests (CLs) were raised and successfully closed. The assessment is included in the report.

- **Any uncertainties associated with the verification.**

There are no restrictions of uncertainty.

- **Summary of the verification conclusion.**

Gansu Diantou Bingling Hydropower Development Co., Ltd. has commissioned the China Classification Society Certification Co. Ltd. (CCSC) to carry out the Verified Carbon Standard (VCS) 4th periodic verification of the project, "Gansu Huanghe Bingling Hydropower Station Project" (453) with regard to the relevant requirements of VCS standard Version 4.7. CCSC confirms all verification activities including objectives, scope and criteria, level of assurance, monitoring and monitoring report adhere to VCS Version 4.7 and all associated updated as documented in this report, are complete. China Classification Society Certification Co. Ltd concludes that the project activity "Gansu Huanghe Bingling Hydropower Station Project" in China, as described in the final version of Monitoring Report, meets all relevant requirements for VCS verification activity and correctly applied the methodology ACM0002 (version 6). Hence China Classification Society Certification Co. Ltd is able to certify that the GHG removals the project during the monitoring period 01-January-2016 to 03-August-2018 amount to 1,743,999 tCO₂e.

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1 INTRODUCTION

1.1 Objective

Gansu Diantou Bingling Hydropower Development Co., Ltd. has commissioned China Classification Society Certification Co. Ltd. (CCSC) to carry out the verification and certification of emission reductions reported for the “Gansu Huanghe Bingling Hydropower Station Project” (the Project) for the monitoring period 01-January-2016 to 03-August-2018. This report contains the findings from the verification and includes a verification statement for the verified carbon units.

1.2 Scope and Criteria

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 “Gansu Huanghe Bingling Hydropower Station Project” for the period 01-January-2016 to 03-August-2018.

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. As per the para 3.10.1 of the VCS Standard Version 4.7, the project size categorization belongs to ‘Large Project’ as the expected annual emission reductions is 764,452 tCO₂e larger than 300,000 tCO₂e. Therefore, according to the requirement of para 4.1.10 (4) of VCS standard Version 4.7 “The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects.”, CCSC applied a materiality threshold of 1% with respect to omission or misstatements concerning reported quantities of the project activity.

1.4 Summary Description of the Project

Sectoral Scope and Project Type

According to the VCS Program Guide (version 4.4)/45/ and Annex A of the Kyoto Protocol, the project is applicable under the following activity categories:

- Sectoral Scope: 1. Energy (Renewable/non-renewable)
- Project Type: Grid-connected hydropower project

Project Background

The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous prefecture in Gansu Province, P.R.China. The site location's approximate coordinates are north latitude 35°49'27" and east longitude 102°59'25".

The installed capacity of the project is 240MW equipped with 5 sets of turbines in type of GZ HK-1RT-WP-620 and generators in type of SFG48-56/6700, with unit capacity of 48MW, manufactured by Ha'erbin Electric Machinery Co., Ltd. The electricity generated by the project activity is supplied to the Northwest China Power Grid (NWCPG), and the project is estimated to deliver 764,452 tCO₂e emission reductions annually.

The project activity was registered as a CDM project with Ref.1985 on 12-February-2009 and the renewable crediting period was selected starting on 12-February-2009. The project has been registered as VCS project with VCS ID. 453 under VCS Standard Version 2007.1 with the crediting period start date 04-August-2008 when the commencement of operations activities started as confirmed by checking the Commissioning Report /37/, operation logs/8/, the VCS monitoring report and verification report for the period of 04-August-2008 - 11-February-2009 /32//33/. The amount of 142,100 tCO₂e VCUs have been issued for the monitoring period 04-August-2008 to 11-February-2009 within the 1st VCS crediting period.

GHG emission reductions have been applied for CERs under CDM of which total 3,067,359 tCO₂e have been issued for the monitoring periods 12-February-2009 to 29-July-2012 and 30-July-2012 to 31-December-2012.

GHG emission reductions have been applied for VCUs under VCS of which total 2,490,647 tCO₂e have been issued for the monitoring periods 01-January-2013 to 31-December-2015.

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 approved revised CDM-PDD (version 3.0 dated 04-November-2009) and monitoring plan contained in the approved revised CDM-PDD, the applied methodology, and the VCS Standard (Version 4.7) 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, CCSC appointed a verification team in accordance with CCSC's internal procedures.

Function	Name	Technical competence	Task Performance*
Team Leader	LI Xingtong	TA1.1/TA1.2/TA3.1/TA9.2/TA13.1/SS14	DR SV RP
Verifier	TAN Wenbin	TA1.2/TA3.1/TA5.2/TA8.1/TA10.1	DR SV RP
Technical Reviewer	TANG Zhiang	TA1.1/TA1.2/TA2.1/ TA3.1/TA4.1/TA9.2/TA13.1	TR

Technical Reviewer	PIAO Lijing	TA1.1/TA1.2/TA2.1/ TA3.1/ TA4.1/TA9.2/TA13.1	TR
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*DR=Document review; SV=Site visit; RP=Reporting; TR=Technical review

In addition to the VER/VCU monitoring report/1/, the monitoring plan contained in the approved revised CDM-PDD /11/, emission reduction calculation spreadsheet/2/ during this monitoring period, the following documents also were assessed as a part of the verification audit:

- The VCS validation report /31/;
- The CDM approved revised PDD and corresponding validation report /31/;
- The previous VER/VCU monitoring report/32/ and verification report/33/, and previous CDM/CER monitoring reports /34/and verification reports/35/;
- Baseline and monitoring methodology ACM0002 (version 6) applied by the project/48/;
- Relevant decisions, clarifications and guidance from the Verra/44/-/47/; and
- Other information and references relevant to the project activity.

During the desk review, CCSC 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 24-September-2024, CCSC visited the project proponent Gansu Diantou Bingling Hydropower Development Co., Ltd. to perform on-site assessment. The key personnel of the project were interviewed or assisted the verification team /48/. 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 /51/ are summarized in the table below

Interviewed personnel	Role	Organization	Subject
Mr. Wang haiming	Plant Director		

Mr. Tang Wanshou	O&M Staff	Gansu Diantou Bingling Hydropower Development Co., Ltd.	Operation of the project activity;
Mr. Xu Anming			Implementation of the monitor plan of the project activity;
Ms. Li Wei			Data collection and data achievement;
Mr. Huang Wanheng			Calibration of meters and equipment maintenance; The complaint by local stakeholders; The stakeholder consultation during the operation of the project activity. Project's sustainable development contributions.
Mr. Guo Chunde	Local resident	Local Village	The impact of the project activity;
Mr. Luo Wenxue			The complaint by local stakeholders;
Ms. Dong Xianglan			The stakeholder consultation during the operation of the project activity; Project's sustainable development contributions.
Mr. Zhao Yonghong	Consultancy	/	Descriptions in the Monitoring report and emission reduction calculation method.

2.4 Site Visits

During the on-site assessment, CCSC 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 revised CDM-PDD of the project activity;
 - A review of information flows for generating, recording, 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 monitoring plan;
 - A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and the electricity receipts;
 - A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the approved revised 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.

In addition, all parameters required by the monitoring methodology ACM0002 (version 6), 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 1 CL and 3 CARs in this monitoring period. The CL and CARs were satisfactorily addressed by the project proponents in the updated monitoring report version 2.0 dated 30-October-2024, please refer to Appendix C for further details.

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.

CCSC confirmed that there was no FAR identified in previous verification/33/, and no FAR was raised during this verification.

2.6 Eligibility for Validation Activities

The project has been validated by TÜV SÜD Industrie Service GmbH under the CDM rules and registered as CDM project on 12-February-2009, and was registered as VCS project under VCS standard version 2007.1 through gap validation by SGS United Kingdom Ltd.

CCSC was accredited in Sectoral Scope 1 on validation and verification and thus is eligible for verification activities on the project. By checking the UNFCCC website, the VCS pipeline and the previous verification reports/35/, it is confirmed the verification for this monitoring period 01-January-2016 to 03-August-2018 which is no more than consecutive 6 years is the first verification undertaken by CCSC. Therefore, the verification undertaken by CCSC is in line with the requirement for VVB stipulated in Section 4.1.27 of VCS standard Version 4.7

3 VALIDATION FINDINGS

The project has been registered as a CDM project on 12 -February- 2009 under the UNFCCC with Ref. 1985. The renewable CDM crediting period was selected starting on 12-February-2009. By checking the UNFCCC website: <https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view>.

It is confirmed that total 3,067,359 tCO₂e of CERs have been issued for the monitoring periods 12-February-2009 to 30-June-2009, 01-July-2009 to 28-June-2010, 29-June-2010 to 28-June-2011, 29-June-2011 to 27-February-2012, 28-February-2012 to 29-July-2012 and 30-July-2012 to 31-December-2012.

3.1 Methodology Deviations

The validation process /24/ has assessed all factors and issues that constitute the basis for emission reductions from the project according to the applicable CDM methodology ACM0002 (version 6) /48/.

There was not any methodology deviation applied to this project. Details refer to section 4.1.

3.2 Project Description Deviations

By checking the previous VCS verification reports with the monitoring period 04-August-2008 to 11-February-2009, the Commissioning report of the project /37/, operation logs/8/ and through the site visit interview with project owner, it is confirmed that the project started commissioning on 04-August-2008 which is the project start date according to the requirement of VCS. A deviation was identified for the crediting period of the Project. The project is registered as VCS project under VCS version 2007.1 and completed validation before 19-March-2020. As per VCS requirement, it remains eligible to apply the crediting period requirements under VCS Standard Version 3 which shall be a maximum of ten years and may be renewed at most twice. Therefore, the first renewable crediting period of the Project under VCS is updated from 04-August-2008 - 11-February-2009 to 04-August-2008 - 03-August-2018, which lasts for 10 years. As per VCS requirement, the project did not conduct the validation of crediting period renewal within the two years after the end of the first VCS crediting period. Thus, the total VCS crediting period of the project ends on 03-August-2018.

The verification team confirms that the deviation on the crediting period has no impact on the applicability of the methodology, additionality of project activity, and the appropriateness of the baseline scenario.

Due to that the actual model and technical specifications of the turbines and generators are not the same as stated in the registered CDM-PDD, a revised PDD has been submitted and approved by CDM EB on 15-April-2010. The main changes are as follows:

In the registered CDM PDD (version 2.2 dated 10-February-2009) the model of the turbines was GZ(741)-WP- 625 with the capacity of 48MW and the model of the generators was SFWG48-56/. The nominal water flow of the turbine was 332 m³/s and turbine run-away rotation speed was 267.8 rpm. According to the approved revised CDM PDD, the model of the turbines is GZHK-1RT-WP-620 with the capacity of 49MW and the model of the generators is SFG48-56/6700 with rated capacity of 48MW. The turbine nominal water flow is 335 m³/s and the turbine run-away rotation speed is 330 rpm. The model and technical specifications have been verified by checking the equipment purchase agreement /39/, the nameplates of the turbines and generators /36/ during on-site visit.

By checking the validation opinion on the changes in PDD (revision NO.0 dated 16-November-2009) approved by CDM EB, CCSC confirms that the changes in parameters of main equipment have no impact on applicability of the methodology, the additionality of project activity and the appropriateness of the baseline scenario.

During this monitoring period, the project has been implemented in accordance with the approved revised CDM PDD and there is no other deviation occurred. Thus, CCSC confirms that the project remains in compliance with VCS Program rules and meet all appropriate rules and requirements of VCS standard.

3.3 New Project Activity Instances in Grouped Projects

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

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	Through checking relevant documents /11//12//32//33//34//35/ as well as CDM and VCS registry, CCSC concludes that the information provided in section 1.2 of MR /1/ is accurate and realistic.
Double counting and participation under other GHG programs	By checking UNFCCC website ¹ , it is confirmed by CCSC that the project has been registered as CDM project activity on 12-February-2009 with reference No. 1985 GHG emission reductions of 3,067,359 tCO ₂ have been issued as CERs from 12-February-2009 to 31-December-2012 under CDM scheme, 142,100 tCO ₂ from 04-August-2008 to 11-February-2009 and 2,490,647 tCO ₂ from 01-January-2013 to 31-December-2015

¹ <https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view>

	under VCS scheme. There are no CDM issuance during this monitoring period. Furthermore, CCSC checked public information from the GS. GCC, and VCS Registry/24//25//26//29/, and interviewed with project owner during site visit, it is confirmed that except CDM and VCS scheme, the project has not been participated or been rejected under any other GHG programs since validation or previous verification. Therefore, the verification team confirmed that the project only applies CERs and VCU under CDM and VCS, and no rejection from CDM and VCS 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 only apply for VCUs.
No double claiming with emissions trading programs or binding emission limits	Based on VVB's local expertise, China has a national emissions trading scheme only cover the high-emission industries, such as eight emission-intensive industries including heat generation, petrochemicals, chemicals, building materials, non-ferrous metals, papermaking, steel and aviation that emitted at least 26,000 tons of CO₂e/year which has been verified in the public website of Ministry of Ecology and Environment of the People's Republic of China (MEE) (https://www.mee.gov.cn/), and it is confirmed that there is no emission cap enforced for the project owner by checking the enforced company list in public information. Therefore, it can be concluded that the PP will not be included in the national ETS. Hence, it is confirmed that the emission reductions will not be double counted.
No double claiming with other forms of environmental credit	Via interview with the project developer and CCER Mechanism database of China, Chinese Emission Trading System/29/ as well as through checking the statement on no double counting provided by project proponent /40/, it is confirmed that the project has not created any other form of environmental credit.

Supply chain (scope 3) emissions double claiming	CCSC validation team confirms the project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous Prefecture in Gansu Province, China. The total installed capacity of the project is 240MW, consisting of 5 bulb-type propeller turbines with an individual capacity of 48 MW. The purpose of the project is to utilize the natural water flow of the Yellow River, limited storage capacity (less than one day) and medium head to generate zero emissions electricity for the Gansu Power Grid, Totally 954,088 MWh of clean electricity generated by the Project are expected to be delivered to the NWPG annually. Hence, the project does not affect emissions associated with a good or service, nor it will affect the indirect upstream and downstream GHG emissions in supply chain.
Sustainable development contributions	By checking the renewed PDD and 17 SDGs defined by UNDP, and interviewing with stakeholders during site visit, the verification team confirmed that the project would contribute to sustainable development in as below: - 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 the power grid was 2,052,303.021 MWh. By checking UNFCCC website /24/ and VERRA website/26/, it is confirmed that since operation of the project activity, the cumulative renewable energy supplied to NWPG was 8,760,028.943 MWh. - SDG 8: Providing 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. By checking staff roster listed in Appendix of the MR, it is confirmed that 227 employees (including 55 females in 2016, 59 females in 2017 and 59 females in 2018) , are working for the project activity by the end of this monitoring period;

	- SDG 13: Reducing greenhouse gas emissions compared to a business-as-usual scenario. Through checking the daily operation record /6/, during this monitoring period, the emission reductions achieved were 1,743,999 tCO₂e. By checking UNFCCC website/24/ and VERRA website/26/, it is confirmed that since operation of the project activity, the cumulative emission reductions achieved were 7,444,105 tCO₂e.
Additional information relevant to the project	Through interviews with the project developer, CCSC confirms that there is no commercially sensitive information has been excluded from the public version of the project description and there is no other relevant information that may have a bearing on the eligibility of the project, the reductions or removals, or the quantification of the project's reductions or removals.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	The stakeholders should be all the communities and parties which are relevant to the project activity or impacted by the project or have interest in the project. The MR states that the stakeholders were identified following 4 steps. Via checking the MR /1/ and other relevant documents and base on the on-site interview, the stakeholders are identified following: Step 1: Project Documents Review Stakeholder Identification was started by reviewing project documents. E.g. project approval, feasibility study report (FSR), environmental impact assessment (EIA), contract documents etc. These documents not only outline the primary objectives and the intended outcomes of the project, but also mention stakeholders impacted by the project and provide initial insights into who the key stakeholders might be. After the documents review, the project team listed down the potential stakeholders impacted by the project through discussion.

Step 2: local stakeholders Survey

Before the local stakeholder's survey was carried out, the project team issues a stakeholder solicitation announcement on Linxia Economic Information network website and the stakeholders can contact the project team through telephone and other means specified in the announcement to express their expectations, concerns and needs. The project team communicate with local residents etc around the project area to collect their opinions in the physical Local stakeholder consultation meeting. Their perspectives help identify concerns and potential stakeholders that may not be immediately obvious.

Step 3: Regulatory and Legal Research

The project team researched the local and national regulations and laws that pertain to the hydropower projects. This is helpful to identify regulatory bodies, agencies, and government representatives who may be stakeholders due to their role in permitting, compliance, or oversight.

Step 4: Stakeholder Catalogue

The project team created a stakeholder catalogue.

The stakeholders identified:

- 1: Villagers from the nearby villages
- 2: Yongjing County and Jishishan County governments
- 3: The project staff

FSR and its approval /38/,EIA Report and EIA approval/17/, which define the impact of the Project on the ecological environment of the Project site and the living environment of local villagers.

On-site inspection and interview Through site visits, VVB interviewed local villagers and local government stakeholder representatives, most of whom were involved in the implementation of the Project.

Through the observation of the implementation of Project and interviews with community and government stakeholders, it was determined that the Project was implemented in areas affecting the community.

	The local government was responsible for the approval and related environmental and social issues. The Project provided job opportunities and related training for local residents. Therefore, it is verified that each stakeholder is correctly identified, relevant analysis and evaluation, and the relevance of the stakeholder to the Project activities is sufficient. The list of primary stakeholders is provided in the MR and seems reasonable for the project. This was confirmed during the on-site visit and the interview with the local stakeholders.
Legal or customary tenure/access rights	Through on-site validation, CCSC confirmed that the project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous Prefecture in Gansu Province. By reviewing the FSR and its approval, the implementation of the project would result the submerge of 308.67 ha cultivated land, 13.01 ha homestead which is collective owned land and held by local communities. By reviewing the None resettlement statement of Bingling project by Minhe County and Jishishan County Government, Distribution Table of Compensation Fees for Submerged Land, Bingling Land Acquisition Compensation Audit Report./18/, the land used in this project has been compensated according to relevant local and national regulation, the legal or customary tenure/access rights to territories and resources was protected as per the local and national law/regulations. Based on above assessment, it is concluded that the project does not complicit of involuntary relocation as within the project area through checking the relecant document /18/ and onsite observations and interview with local residents.
Stakeholder diversity and changes over time	Through interviews, CCSC confirms the diversity of stakeholders: The villagers from nearby villages, the local government and the project staff are affected by the project activity directly. Through interviews with the villagers from nearby villages, CCSC confirmed that the villagers have different social networks and ways of interacting. the group may comprise a mix of age groups, from young families to elderly individuals. They may have different levels of education, occupations, and family sizes.

	Through interviews with local governments, CCSC confirmed the staff of government departments come from different backgrounds and have different professional knowledge, but because the functional departments of the government are determined and the work content is fixed, there are relatively few changes in the government. Through interviews with project staff, the majority of project employees come from nearby county, and the social and cultural diversity of this group (project staff) is largely consistent with that of local villagers. But in terms of economic diversity, this group (project staff) all worked in the same project, resulting in similar income levels that are only related to education level, position, etc., so the economic diversity between them is very small. The above diversity is unlikely to change over time. Therefore, CCSC has checked that it is reasonable to conclude that members of each group will adjust over time, but that their groups will not change much socially, economically, culturally, etc.
Expected changes in well-being	PP states that the implementation of the project will have a positive impact on the well-being and other characteristics of stakeholders. Economic well-being: The project has supplied renewable energy to local area, and contribute to the economic growth in the area. Social well-being: By checking the statement of project employees in APPENDIX II of MR /1/, CCSC confirmed that the Project implementation will promote local economic development, provide employment opportunities and promote rural economic prosperity. Environmental well-being: By checking the operation records /8//9/, the project will result in the following changes compared to the baseline scenario of electricity delivered to NWPG by the project that would otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid, it would reduce the pollutants of SO₂, NO_x, particulate matter and GHG emission. CCSC confirmed that the Project generates electricity from renewable source to displace equal electricity generated from NWPG and reducing the impact of greenhouse gases on climate. Collectively, these changes will have a positive impact on local people's livelihoods and living environment, while helping to improve ecosystem services and enhance the sustainability of local communities.

Location of stakeholders	The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous Prefecture in Gansu Province. The area in which the project is located is the location of stakeholders. Via on-site inspection, CCSC confirms that the identification of Location of stakeholders is reasonable and accurate.
Location of resources	The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous Prefecture in Gansu Province. The area in which the project is located is the location of resources. Via on-site inspection, CCSC confirms that the identification of Location of stakeholders is reasonable and accurate.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	Through on-site visits and interviews with stakeholders, CCSC confirmed that PP has established a mechanism for continuous communication with local stakeholders. A suggestion book is kept at the Project proponent office and a complaint box with phone number on it is placed at the gate of the Project proponent's office building, Anyone can go there and record their grievance or comment in the book, or put grievance/comment letter in the complaint box. The Project proponent personnel would review and respond to the comments or complaints and record the response in the timely manner. Meanwhile, the local authority has also conducted spot checks on the implementation of the project from time to time as per the request from the local governments' regulations.
Date(s) of stakeholder consultation	Through on-site interview with local stakeholders and checking relevant documents, it is confirmed that Before the project implementation, a questionnaire survey which consisted of two separate questionnaires of which one was distributed among public organizations and the other among individuals, which were carried out

	from the 14-December-2006 to 14-January-2007. As well as a stakeholder consultation meeting was held on 22-December-2006. The suggestion book and complaint box are available after the project implementation and constant stakeholder consultations were carried out before the project implementation on 28th December 2005 and during this monitoring period from 2016 to 2018.
Communication of monitored results	Through checking the methodology ACM0002 Consolidated methodology for grid-connected electricity generation from renewable sources (version 20.0)/48/, renewed PDD, and the validation report /11/, it is confirmed that the parameters need to be monitored are the electricity supplied to the grid and imported from grid. Through checking the VER/VCU monitoring report/1/, it is confirmed that the result is listed clearly in the report and the report will be published in the VCS website. Through on-site interview with project proponent /51/, it is confirmed that if any comments and suggestions from stakeholders are received, project proponent will record and the handling results will be notified to stakeholders via phone or other contact information left by the stakeholders.
Consultation records	Through on-site visit and interviews with stakeholders and checking the Grievance book as well as the validation report of renewed PDD /11/, CCSC confirmed that the project proponent has developed a mechanism to record the consultations. through on-site visit and interviews with stakeholders and checking the Grievance book, it is confirmed that there is no comments and suggestions received in this monitoring period.
Stakeholder input	Through on-site visits and interviews with stakeholders and checking the Local Stakeholder Consultation Records CCSC confirmed that the project has not received any complaints, comments or suggestions from stakeholders during the consultation.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	By checking the validation report of registered PDD /11/, it is confirmed that prior to the construction on the start date,

Stakeholder consultation were held with from the 14-December-2006 to the 14-January-2007. As well as a stakeholder consultation meeting was held on 22-December-2006.

The questionnaire survey among public organizations consisted of handing out 100 questionnaires among various government and political departments of which 90 were returned. The other survey among individuals were consisted of handing out 160 questionnaires among involved individuals which included various experts, local residents living in the projected reservoir area and local residents living downstream of the dam.

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. Such conclusion is also confirmed via on-site interview with local residents /11/.

According to the report/10/, PP disclosed to Stakeholders the nature, scale, speed, reversibility and scope of the proposed Project or activity; The reason or purpose of the Project and/or activity; Duration of Project activities; Affected locations; And a preliminary assessment of economic, social, cultural and environmental impacts, including potential risks and fair and equitable benefit sharing, respecting the precautionary principle.

In addition, PP stated that it will actively listen to concerns and feedback from Stakeholders and address any questions or concerns raised. Through this process, PP were able to reach a transparent agreement with the community on the implementation of project activities.

In addition, as assessed above, by checking the questionnaires /24/, it is confirmed that no negative comments were received.

	Via interviewing with staff from local environmental protection bureau during the site visit, it is confirmed by the assessment 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, there were no negative comments or issues from the local stakeholders during this monitoring period, the project passed all the periodic spot checks by local government. In addition, PP have been monitoring the situation in the community to identify any ongoing or unresolved conflicts that may be affected by this project. PP take active steps to ensure that Project do not exacerbate or influence the outcome of these conflicts. It is verified that the Free Prior and Informed Consent is true and reasonable, such conclusion is supported by the on-site interview with local stakeholders.
Outcome of FPIC discussion	The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous Prefecture in Gansu Province. It would result the submerge of 308.67 ha cultivated land, 13.01 ha homestead which is collective owned land and held by local communities, which has been compensated according to relevant local and national regulation, the legal or customary tenure/access rights to territories and resources was protected as per the local and national law/regulations. The project is not in the range of prohibited cultivation area, has obtained the approval from local Development and Reform Commission and Ecological Environment Bureau. All occupied land has been compensated. Therefore, the project does not involve land encroachment, non-consensual resettlement of residents and forced relocation. Prior to the commencement of the project, adequate communication was conducted with the local peoples, including the key project schedule, Project details, environmental protection, carbon development, risks, benefits, etc. have been disclosed and fully communicated in advance.

All relevant arrangements are made with the free, prior and informed consent of stakeholders. All stakeholders expressed full support for the project. According to Local Stakeholder Consultation Process that validated in the validation report and on-site interview, CCSC confirms that all stakeholders expressed full support for the project and all relevant arrangements are made with the free, prior and informed consent of Stakeholders.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	In order to resolve complaints relating to the Project, the Project has established a complaint resolution process with stakeholders to ensure fair, transparent and timely processing. Through interviews with Project managers and via checking Grievance book /24/, CCSC confirmed that the steps PP has developed in collaboration with stakeholders to resolve grievances are fair and reasonable: (1) Registration and transfer. After registering the letters and visits of stakeholders, as well as the matters transferred and assigned by higher-level authorities, the department shall promptly forward them to relevant departments for processing. (2) Submit and file for approval. The department shall file and handle the matters assigned by the superior unit or company leader; For the matters raised by the stakeholders, if the department considers the matter important and needs to be reviewed and approved by the company's responsible person, it shall be submitted for approval in a timely manner, and according to the review opinions, it shall be transferred or filed to the relevant department for handling; If the petition department deems it necessary to file a case and assign it, it can also file and handle it on its own. (3) Urge and supervise. The petition department shall promptly urge and supervise the handling of the assigned petition matters; For major and difficult cases, personnel can be sent to the local area to coordinate and handle them.

	(4)Report. For the matters assigned by the superior unit, the handling unit must complete the process within the prescribed deadline and submit a report on the results to the handling unit; If it cannot be completed on time, explain the situation to the assigned unit. (5)Reply. After the handling department directly handles the matters raised by the stakeholders, they will provide a written response to the petitioner with the results of the handling. Re examination and review units shall carefully investigate and verify the accepted the matters, and handle them separately in accordance with relevant regulations. (6)Case closure and filing. After the review of the matters, the department promptly closes the case and organizes and archives the petition matters. Through checking the checking Grievance book, CCSC confirmed project proponent does not received any complaints during the monitoring period.
Grievance redress procedure	The company implements a system of handling, reviewing, and reviewing matters. For matters raised by relevant parties, if they do not agree with the handling opinions and request a review, the higher-level unit will review them. If they do not agree with the review opinions and request a review, the higher-level unit of the reviewing unit will review them.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
Via checking project's page on the Verra Registry, CCSC confirmed this project has not received any complaints or comments during or outside the public comment period.	/	/

4.2.6 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Risks to stakeholder participation	No risk identified. Via checking the FSR, EIA and its approval, the project reduced the emission of SO₂, NO_x etc., and does not generate any risk to stakeholders, the stakeholders involved in the project are all support the project. CCSC confirms that the project has no impact on livelihoods of the local population and climate change.
Working conditions	No risk identified. By checking project monitoring manual and management procedure and on-site visit, CCSC confirmed the project has strictly implemented national and industry regulations and standards on labor safety and health, as well as Chinese labor law and local requirements.
Safety of women and girls	No risk identified. By interview the staff of the project and and review the “Women’s Rights Protection Law”, CCSC confirmed that in the design phase of the project, the safety of women was taken into account and corresponding preventive measures were taken. During the implementation of the project, verified by checking Technical Training Records/5/, all personnel involved in the project are regularly trained on gender sensitivity, including awareness of gender discrimination and gender-based violence, and how to prevent and respond to these issues. The project has established effective monitoring and reporting mechanisms, CCSC confirmed that women can report any safety issues or acts of gender discrimination, ensuring that their voices are adequately addressed and protected. CCSC confirms that the above risk identification is reasonable.
Safety of minority and marginalized groups, including children	No risk identified.

	Through interviews with the project manager and staff regarding the recruitment policy of the project and “Employment Promotion Law of the People's Republic of China”, CCSC confirmed that the project will provide fair and open job opportunities without discrimination against marginalized groups. Additionally, efforts will be made to provide social support and assistance for local marginalized groups. The project does not employ child labor. Therefore, the Project poses no risk to marginalized groups, including children.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	The Project clearly defines the risks of waste water, waste gas, noise and harmful substances in the environmental impact assessment document, and strictly implements the environmental pollution control measures proposed in the EIA Report during the implementation of the Project, thereby eliminating the risks of the Project in terms of the Project of waste water, solid waste gas, noise, air pollution and dust. CCSC confirms that the above risk identification is reasonable, the implementation of the above measures has effectively avoided the risk or mitigated the possible impact and all pollutants are properly disposed of, and the treatment results meet the standards.

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	By interviewing with project manager and staff about issuance of recruitment information, CCSC confirms that the Project does not discriminate of any kind on the basis of sex, race, religion, sexual orientation, or any other ground. Respect the rights granted to women by the Constitution of the People's Republic of China, the Labor Law of the People's Republic of China and the Special Provisions on Labor Protection for Female Employees/30/. By reviewing the complaint record/28/, CCSC confirmed that no sexual harassment complaint had been received during the monitoring period.
Management experience	The project proponent is a local State-owned enterprise , and operated several hydropower projects with total capacity of 1,790MW, who has rich management experience in this regard.

	Via on-site interview with the project manager and staff, CCSC confirmed that the main person responsible for the Project implementation has many years of work experience in the field of manure management and environmental protection and holds a doctorate degree, has the relevant skills and expertise in the planning, implementation and supervision of Project, and is able to effectively manage and drive the implementation of Project. Also, through on-site interview, CCSC confirmed that project proponent has developed sufficient recruitment strategy to fill gaps in skills and experience that may exist.
Gender equity in labor and work	Through site visits CCSC confirms that the Project has male and female employees of different genders and that there are female employees in management positions. It is verified by Pay Roll that there is no significant gender difference between female and male employees in terms of compensation, promotion opportunities and benefits, and that employees of different genders have equal access to training and development resources as confirmed by reviewing the Technical Training Records/5/. Through interviews with Project employee representatives, CCSC confirmed that employees believe that Project is treated equally in terms of gender and pay.
Human trafficking, forced labor, and child labor	The Project adopts a compliant recruitment and employment policy, CCSC confirms that the employment policy of the Project complies with the relevant standards of the International “Constitution of the People's Republic of China”, “Criminal Law of the People's Republic of China”, “Labor Law” and “Protection Laws on the Juvenile” and does not involve any form of human trafficking, forced labor and child labor.

4.2.7.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Human rights	By interviewing Project managers and staffs, CCSC confirms that Project activities comply with International Human Rights Law, And strictly abide by the relevant laws of China, such as the Constitution of the People's Republic of China, the Labor Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Women's Rights and Interests, the Law of the People's Republic of China on the Protection of Minors, etc.) to ensure the protection of stakeholders.
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4.2.7.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	Through site visits and interviews with local government staff as well as reviewing the EIA and EIA approval, CCSC confirmed that there are no cultural heritage nor indigenous people to be protected in or around the project site.

4.2.7.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Disputes over rights to territories and resources	By checking the Approval of the project , CCSC confirms that the project got the approval from government about the land use, and the Project does not involve any possible conflict of rights between different stakeholders. CCSC confirms that the territorial and property rights identified in this Project are clear and reasonable.
Respect for property rights	By checking the Approval of the project, CCSC confirms that the Project protects the territory, property and customary rights and interests of indigenous peoples through the signing of lease contracts; As confirmed by the validation report of registered PDD /11/, the stakeholders involved in the submerge land etc have gained the compensation before the project implementation. In the implementation stage it does not involve in “Respect for property rights”. CCSC confirmed that these measures ensure effective respect for and protection of indigenous peoples' territorial, property and customary rights of use.

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	As assessed above, through checking the Approval of the project and on-site investigation, CCSC confirmed that there are no disputes over rights to territories and resources, the land, the facility, and the project are all belong to the project proponent. The relevant stakeholders involved in the submerge land were gained the compensation before the project implementation as per the local and national compensation laws, and all the stakeholders agreed on the implementation of the project. Hence, this section is not relevant to the project.
Benefit sharing during the monitoring period	N/A

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No risk identified. Via checking Approval of EIA report, and after on-site inspection and interviews with project manager and local residents, CCSC confirms that not risk identified on biodiversity and ecosystems
Soil degradation and soil erosion	No risk identified. This project is a hydropower project. The reservoir has submerged farmland, and the corresponding compensation has been distributed to the villagers. Centralized protection of abandoned waste and planting trees and grass along the two sides of the newly built reservoir and protect the forest land by avoid harvesting tree and reserve the water and soil along the reservoir to avoid soil degradation and soil erosion.
Water consumption and stress	No risk identified. CCSC confirmed that the implementation of the project improves the water resource management capacities, which do good to the local communities for daily and agricultural water usage, rather than increase the water consumption and stress.

Usage of fertilizers	No risk identified. CCSC confirmed the project is a hydro power project and does not use any fertilizers, there was not risk identified on Usage of fertilizers.
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4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	By checking the official websites of national and local environmental protection authorities/32/, EIA report and approval/26/ and via interviewing with local residents, local officials, CCSC confirmed that the Project is not in or near the habitat of rare, threatened or endangered animals

4.2.8.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	Not applicable. No planting or introduction of species is involved in the Project implementation

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	N/A

4.2.8.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	Not applicable. The project is not an ARR, ALM, WRC or ACoGS project.

CAR2 and CAR3 were raised to clarify and were successfully closed. Details please refer to Appendix C.

4.3 Accuracy of Reduction and Removal Calculations

Compliance of monitoring plan with monitoring methodology

CCSC is able to confirm that the monitoring plan contained in the approved revised CDM PDD is in accordance with the approved methodology applied by the project activity, i.e. ACM0002 (version 6).

Compliance of monitoring with the monitoring plan

The monitoring has been carried out in accordance with the monitoring plan contained in the approved revised CDM PDD /11/, CCSC 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 6) and the management system was 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, recording, aggregation, calculation and reporting) for each parameter is provided. The information flow for each parameter is further verified in the following sections.

Parameters fixed ex ante

“Data and parameters fixed ex-ante” in the MR are checked against the approved revised CDM PDD. The parameter EF_y is the combined emission factor of the grid which was determined ex-ante at the validation stage and has been fixed during the first crediting period. CCSC verified and confirms that the emission factor used in the monitoring report is in compliance with the approved revised CDM PDD. Other ex-ante parameters (i.e. Power generation by source, Internal power consumption of power plants, Primary fuel input for thermal power supply, Efficiency of advanced thermal power plant additions, Capacity by power generation source, Oxidation Factor, Fuel Emission Coefficients,

Electricity imports from connected grids, Net Calorific Value) were used to calculate the parameter EF_y in the approved revised CDM PDD, which were validated in the validation process. CCSC verified and confirms that the emission factor used in the monitoring report is in compliance with the approved revised CDM PDD.

Parameters monitored

CCSC conducted document review and performed on-site assessment with project stakeholders to:

- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- Determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan;
- A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks and sales receipts;
- 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.

According to the monitoring plan and the applied methodology, the parameters to be monitored are as below:

EG_y Electricity supplied to the grid by the project (net)

Surface area reservoir Surface area at full reservoir level

Operational hours of emergency back-up diesel generator Annual hours that the emergency back-up diesel generator is running either for the purpose of commissioning/maintenance or actual emergencies

Monitored parameter EG_y

Based on the on-site inspection of the monitoring meters and checking the connection diagram /4/, PPA /3/, the monitoring plan and previous verification reports, it is confirmed the meters involved in determining EG_y are:

- Meters M2a and M2b with bidirectional function (accuracy class 0.2S) are located at the two main lines of the project side which are owned by the project proponent to monitor the net electricity supplied to the grid through the two main lines (ES_y);
- Meters M3a and M3b with bidirectional function (accuracy class 0.2S) are installed at the two main lines at the grid's side which are owned by the grid to monitor ES_y and the sales receipts are issued by the grid company based on the readings of M3a and M3b;
- The unidirectional meter M4 (with accuracy class of 0.5) installed on the backup line at project site is owned by the project proponent to monitor the electricity received from the grid through the back-up power line;
- The meter M5 (with accuracy class of 0.5S) installed on the backup line at the grid's side was owned by the grid company to monitor the electricity received from the grid through the back-up power line and the billing receipts are issued by the grid company based on the readings of M5.

The verification team had on-site checked the location of the meters against the diagram of power connection system /4/ and found them to be consistent and installed in accordance with the monitoring plan. All the monitoring facilities and system have been verified by CCSC during on-site visit.

Via the on-site interview and by checking the daily operation and maintenance records /8/, monthly and daily reading records /9/, it is confirmed by the verification team that the net electricity supplied to the grid through the main lines (ES_y) is continuously measured by M2a, M2b while the electricity delivered to the project through back-up power line (ED_y) is continuously measured M4, both daily recorded and monthly aggregated by trained staff of the project as agreed with the grid company at 24:00 on the aggregating, antepenultimate day of each month. The sales receipts /10/ issued by the grid company based on the readings of M3a and M3b have been used for verifying the reading records of ES_y measured by meters M2a and M2b while the billing receipts issued by the grid company based on the readings of M5 were used to cross-check with the readings of ED_y measured by meter M4.

According to the monitoring plan, the net electricity supplied to the grid by the project (EG_y) is calculated as:

$$EG_y = ES_y - ED_y$$

Where,

ES_y: net electricity supplied by the project through the main power lines;

ED_y: electricity delivered to the project through back-up power line.

Data in the monthly reading records were used to the report, through a cross check the reading records of ES_y with sales receipts and ED_y with billing receipts respectively, the most conservative values were used for the monitoring report and ERs calculation spreadsheet, which has been verified by the verification team. Supporting references and data required to determine the quantity of net electricity generation supplied by the project is found to be complete and transparent.

Monitored parameter Surface area reservoir

Surface area reservoir is the area of the reservoir is measured on the surface of the water, after the implementation of the project activity, when the reservoir is full which was monitored once at the start of the project when the reservoir reaches full capacity. By checking the Survey report /15/ issued by Gansu Provincial Land Resources Planning and Research Institute in July2009 which is after the operation of the project and via on-site inspection, it is confirmed that the Surface area reservoir of the project is 2,871,999.3m².

Monitored parameter Operational hours of emergency back-up diesel generator

Operational hours of emergency back-up diesel generator were logged by the project staff once the generator was operated during this monitoring period as per monitoring plan, which is verified during the on-site inspection and by checking the daily operation and maintenance records /8/. The operational duration was 46.5 hours during this monitoring period.

Monitoring equipment and calibration

The documents review was carried out. Particular attention was paid to the frequency of measurements, the quality of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the approved revised CDM PDD and the methodology ACM0002 (version 6) and corresponding tool(s), and the quality assurance and quality control procedures.

All monitoring meters have been calibrated annually as per the monitoring plan covering this monitoring period. The relevant information of the calibration is listed as below:

Meter	Type	Serial NO.	Accuracy	Calibration frequency	Calibration date	Validity date	Calibration entity
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M2a	SL7000	36139071	0.2S	Annually	15 -February-2015	14 -February-2016	Gansu Electric Power Research Institute Testing Centre
M3b	SL7000	36139070	0.2S	Annually	12 -February-2016	11 -February-2017	
M4	DTSD341	20070701110015	0.5	Annually	07 -February-2017	06 -February-2018	
M5	DS862	090106002773	0.5S	Annually	05 -February-2018	04 -February-2019	
M3a	SL7000	36088323	0.2S	Annually	15 -February-2015	14 -February-2016	
					12 -February-2016	11 -February-2017	
					07 -February-2017	06 -February-2018	
					05 -February-2018	04 -February-2019	
M2b	DTZ-110	0100881150	0.2S	Annually	15 -February-2015	14 -February-2016	
					12 -February-2016	11 -February-2017	
					07 -February-2017	06 -February-2018	
					05 -February-2018	04 -February-2019	

Calibration records and accreditation certificates/12//13/ have been verified by the verification team. The actual accuracy for meters M2a, M2b (old and new), M3a and M3b is verified to be 0.2S and the actual accuracy M4 is 0.5 and for M5 is 0.5S which is in line with requirement of the monitoring plan and the Technical administrative code of electric energy metering (DL/T448) /23/.

The calibration frequency of all meters is annual, which is consistent with the monitoring plan. Based on the site visit and by checking the calibration reports, CCSC confirms that:

- All meters have been installed in accordance with the monitoring plan;
- The meters' accuracy is in line with the requirement of the monitoring plan;
- The calibration frequency of the meters is annual, which is in line with the monitoring plan and national technical standard/23/ as required by VCS standard. And the calibrations are verified to be valid for the whole reporting period.

CL1 was raised to clarify and was successfully closed. Details please refer to Appendix C.

Data management and control

Gansu Diantou Bingling 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 project management and monitoring manual/6/, including the organization structure with the responsibilities, personnel competencies, monitoring procedures and monitoring management. By interview with the staff/51/ and check records /8//9/ 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.

As the above and document review, verification team considers that the project activity operated properly in the way complying with the implementation plan and approved revised monitoring plan and the monitoring was performed in a transparent and comprehensive manner during this monitoring period.

Emission reduction calculation

CCSC 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:

$$ER_y = BE_y - PE_y - L_y$$

Baseline emissions

Baseline emissions are determined as multiplying quantity of net electricity generation supplied by the project plant to the grid (EG_y) by the validated ex-ante fixed grid emission factor (EF_y).

$$BE_y = EG_y \times EF_y$$

Combined margin CO₂ emission factor (EF_y)

EF_y is the grid emission factor of the which has been verified ex-ante in the validation stage in the VCS PD as 0.8498 tCO₂e/MWh.

Quantity of net electricity supplied to the grid by the project (EG_y)

As per the Section 4.1 above, EG_y is calculated as:

$$EG_y = ES_y - ED_y$$

The verification team has checked the monthly reading records, sales receipts, billing receipts issued by the grid company and emission reduction calculation sheet, and confirmed the data and calculation applied are correct, complete and transparent. The reading records and EG_y calculation are summarized in the Tables as follow:

Net electricity supplied by the Project through the main lines ES_y

Period	Net electricity supplied by the Project through the main lines ES _y (MWh)				
	ES _y (MWh)	ED _y (MWh)	EG _y (MWh)	EF _y (tCO ₂ e/MWh)	BE _y (tCO ₂ e)
	A	B	C=A-B	D	E=C*D
01-January-2016- 29-January-2016	0.000	2.800	-2.800	0.8498	-2.379
30-January-2016- 27-February-2016	58,682.954	4.220	58,678.734	0.8498	49,865.188
28-February-2016- 29-March-2016	64,579.746	4.300	64,575.446	0.8498	54,876.214
30-March-2016- 28-April-2016	47,969.328	3.000	47,966.328	0.8498	40,761.786
29-April-2016- 29-May-2016	76,939.984	3.320	76,936.664	0.8498	65,380.777
30-May-2016- 28-June-2016	75,501.360	3.300	75,498.060	0.8498	64,158.251
29-June-2016- 29-July-2016	106,872.480	4.900	106,867.580	0.8498	90,816.069
30-July-2016-	79,482.480	4.700	79,477.780	0.8498	67,540.217

29-August-2016					
30-August-2016- 28-September-2016	57,251.040	4.000	57,247.040	0.8498	48,648.535
29-September-2016- 29-October-2016	52,660.080	3.600	52,656.480	0.8498	44,747.477
30-October-2016- 28-November-2016	55,869.528	2.900	55,866.628	0.8498	47,475.460
29-November-2016- 29-December-2016	48,959.504	2.860	48,956.644	0.8498	41,603.356
30-December-2016- 31-December-2016	0.000	3.020	-3.020	0.8498	-2.566
2016 Total	724,768.484	46.920	724,721.564	-	615,868
01-January-2017- 29-January-2017	0.000	3.020	-3.020	0.8498	-2.566
30-January-2017- 26-February-2017	52,861.402	3.500	52,857.902	0.8498	44,918.645
27-February-2017- 29-March-2017	55,583.615	3.340	55,580.275	0.8498	47,232.118
30-March-2017- 28-April-2017	48,092.044	3.000	48,089.044	0.8498	40,866.070
29-April-2017- 29-May-2017	71,946.688	3.000	71,943.688	0.8498	61,137.746
30-May-2017- 28-June-2017	77,503.492	2.900	77,500.592	0.8498	65,860.003
29-June-2017- 29-July-2017	95,668.430	3.660	95,664.770	0.8498	81,295.922
30-July-2017- 29-August-2017	86,712.120	4.200	86,707.920	0.8498	73,684.390
30-August-2017-	70,500.540	2.900	70,497.640	0.8498	59,908.894

28-September-2017					
29-September-2017- 29-October-2017	56,226.720	5.020	56,221.700	0.8498	47,777.201
30-October-2017- 28-November-2017	71,613.300	3.200	71,610.100	0.8498	60,854.263
29-November-2017- 29-December-2017	75,884.556	3.140	75,881.416	0.8498	64,484.027
30-December-2017- 31-December-2017	0.000	4.740	-4.740	0.8498	-4.028
2017 Total	762,592.907	45.620	762,547.287	-	648,012
01-January-2018- 29-January-2018	0.000	4.740	-4.740	0.8498	-4.028
30-January-2018- 26-February-2018	47,537.820	2.900	47,534.920	0.8498	40,395.175
27-February-2018- 29-March-2018	50,350.476	3.100	50,347.376	0.8498	42,785.200
30-March-2018- 28-April-2018	67,764.840	2.960	67,761.880	0.8498	57,584.046
29-April-2018- 29-May-2018	114,915.240	3.300	114,911.940	0.8498	97,652.167
30-May-2018- 28-June-2018	134,079.066	4.200	134,074.866	0.8498	113,936.821
29-June-2018- 29-July-2018	150,420.468	6.460	150,414.008	0.8498	127,821.824
30-July-2018- 03-August-2018	0.000	6.080	-6.080	0.8498	-5.167
2018 Total	565,067.910	33.740	565,034.170	-	480,166
Total	2,052,429.301	126.280	2,052,303.021	-	1,744,046

Note:

1. All electricity data measured by meters M2a and M2b is daily recorded by project proponent and monthly reported. During this monitoring period, the cut-off time ES_y was at 24:00 on the antepenultimate day of each month, and sales receipts were issued by grid company for cross-check.
2. Readings of ES_y for the periods 30th – 31st December and 1st -29th January each year were sourced from the daily records and CCSC has checked the data provided in the MR and ER spreadsheet against the original copy of the reading records during on-site visit, and confirmed them to be correct.
3. Since the cut-off time of ES_y is at 24:00 on the antepenultimate day of each month and the sales receipts are issued monthly, there are no separate sales receipts of ES_y for 30th – 31st December and 1st -29th January of each year. To be conservative, the ES_y for the period 30th – 31st December and 1st -29th January of each year are considered as 0. CCSC accepts this approach as it is reasonable and conservative.
4. All electricity data measured by meter M4 is daily recorded by project proponent and monthly reported. During this monitoring period, the cut-off time ED_y was at 24:00 on the antepenultimate day of each month, and billing receipts were issued by grid company for cross-check.
5. Readings of ED_y for the periods 30th – 31st December and 1st -29th January each year were sourced from the daily records and CCSC has checked the data provided in the MR and ER spreadsheet against the original copy of the reading records during on-site visit, and confirmed them to be correct.
6. Since the cut-off time of ED_y is at 24:00 on the antepenultimate day of each month and the billing receipts are issued monthly, there are no separate billing receipts of ED_y for 30th – 31st December and 1st -29th January of each year. To be conservative, for the period 30th – 31st December and 1st -29th January of each year, the whole month's (30th December – 29th January) values from the billing receipts of ED_y are applied for ER calculations. CCSC accepts this approach as it is reasonable and conservative.
7. According to the monitoring plan of the registered PDD /31/, on the project side, NET electricity supplied to the grid by the project is monitored by bidirectional electricity meter M2a and M2b on the 330kV and 110kV main lines, and auxiliary electricity delivered from the grid is monitored by the back-up power line M4, the description is checked against with Chapter 7 of the Power Purchase Agreement/03/ and confirmed consistent. The meter reading of net electricity (ES_y) has been recorded in the monthly reading records. The grid company has already deducted the electricity imported from the 330kV and 110kV main lines when invoicing, and the PP has applied a conservative approach in the calculation table, ie. smaller values of electricity are used to calculate the baseline emissions, therefore, the electricity imported measured by M2a and M2b was already taken into account in the calculations;

The verification team considers that both electricity supplied to the grid and electricity imported from the grid for parameter ES_y have been monitored and the data is realistic, complete and the calculation is correct and conservative.

The corresponding baseline emissions during this monitoring period is calculated as:

Year	EG _y (MWh)	EF _y (tCO ₂ e/MWh)	BE _y (tCO ₂ e)
2016	724,768.484	0.8498	615,868
2017	762,592.907	0.8498	648,012
2018	565,067.910	0.8498	480,166
Total	2,052,429.301		1,744,046

Project emissions

Project emissions from the water reservoir

According to the applied methodology: ACM0002 (version 6), the installed capacity of the project is 240MW, i.e. 240,000,000W, the surface area of the reservoir is 2,871,999.3m² as verified by checking the Reservoir Area Survey Report /15/. Thus, the power density of the project is calculated as: $240,000,000W / 2,871,999.3m^2 = 83.57W/m^2$ which is greater than 10W/m², and as per applied methodology: ACM0002 (version 6), the project emissions from the reservoir during this monitoring period are not considered.

Project emissions due to the operation of emergency back-up diesel generator.

According to the monitoring plan, operational hours of back-up diesel generator is required to be monitored to calculate the project emissions. Though on-site visit, it is verified by checking nameplate that the emergency back-up diesel generator with capacity of 400kW has been installed at the project site. During this monitoring period, the operational hours were 46.5 hours as recorded by the project staff as per the monitoring plan, which is confirmed by checking the daily operation and maintenance records /8/ during the on-site inspection.

As per approved revised CDM PDD, the emission factor for the diesel generator was selected as 2.4kgCO₂e/kWh for the conservative, which is highest value for diesel generator with capacity lower than 15kW sourced from Table I.D.1 of AMS.ID (version 10)/49/ during the validation stage. Thus, the project emissions due to the operation of emergency back-up diesel generator are calculated as follows:

Period	Installed Capacity of the Diesel Generator	Measured	EF for the Diesel	Emissions of the Diesel
	A	B	C	D=Roundup(A*B*C/1000)
	kW	hour	kg CO ₂ e/kWh	tCO ₂ e
01-January-2016- 31-December-2016	400	18	2.4	18
01-January-2017-		18		18

31-December-2017				
01-January-2018- 31-December-2018		10.5		11
Total	-	46.5	-	47

Leakages

Leakage does not need to be accounted for this project as per the monitoring methodology ACM0002(version 6).

Emission reductions

The emission reductions for this monitoring period were calculated as:

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)
2016	615,868	18	0	615,850
2017	648,012	18	0	647,994
2018	480,166	11	0	480,155
Total	1,744,046	47	0	1,743,999

4.4 Quality of Evidence to Determine Reductions and Removals

The assessment of each parameter related to calculate the GHG emission reductions is justified in Sections 4.1 and 4.4 above. Via the on-site inspection and desk review, the verification team verified the supporting evidence provided by the project proponent as listed in Appendix B used to determine the GHG emission reductions

For each reported data, the evidence is provided and verified as sufficient and quality is appropriate. Also, the cross-checks have been performed on the reported data with different source of evidence. The information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report has been assessed by VVB in Section 4.4. Moreover, the calibration is verified as stated in Section 4.1 via on-site inspection with evidences to confirm the meters' location, accuracy and calibration frequency are in line with requirement of the monitoring plan.

Therefore, it is concluded that the evidence provided are verified as sufficient and quality is appropriate and thus the evidence can be used to determine the GHG emission reductions and removals for this monitoring period.

4.5 Non-Permanence Risk Analysis

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

5 VERIFICATION OPINION

5.1 Verification Summary

China Classification Society Certification Co. Ltd. (CCSC) has performed the verification of the emission reductions reported for the project activity "Gansu Huanghe Bingling Hydropower Station Project" (VCS Project ID:453) for the monitoring period 01-January-2016 to 03-August-2018 within the 1st VCS crediting period 04-January-2008 to 03-January-2018, 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 VCS Standard Version 4.7.

- **A brief description of the verification and the project.**

The project is located at the main stream of the Yellow River at the border of Yongjing County and Jishishan County of Linxia Hui Autonomous prefecture in Gansu Province, P.R.China. The site location's approximate coordinates are north latitude 35°49'27" and east longitude 102°59'25". The project is new reservoir hydropower project. The installed capacity of the project is 240MW consisting of 5 hydro turbines and 5 generators with unit capacity of 48MW. The electricity generated by the project is supplied to North West China Power Grid.

The project activity was registered as a CDM project with Ref.1985 on 12 -February- 2009 and the renewable crediting period was selected starting on 12-February-2009. The project has been registered as VCS project with VCS ID. 453 under VCS Standard Version 2007.1 with the crediting period start date 04-January-2008 when the commencement of operations activities started as confirmed by checking the Commissioning Report, operation logs and the VCS

monitoring report and verification report for the period of 04-January-2008 to 11-February-2009.

- **The purpose and scope of verification.**

The objective of the verification is to have an independent review ex post determination by a VVB (Validation and Verification Body) of the monitored GHG removals by sink that have occurred as a result of the implementation of the project activity during a defined monitoring period.

- **The monitoring period.**

This Monitoring period started from 01-January-2016 to 03-August-2018.

- **The method and criteria used for verification.**

Verification is conducted using China Classification Society Certification Co. Ltd. (CCSC) procedures in line with the requirements specified in the latest version of the VCS Validation and Verification Manual and applying auditing techniques. The verification team assessed the project activity's compliance against the VCS Version 4.7, the selected methodology and the project monitoring report. The verification criteria followed the guidance documents provided by VCS included the following: VCS Version 4.7, VCS Program Guide Version 4.4, and the applied CDM methodology The approved CDM methodology ACM0002 (version 6).

- **The number of findings raised during verification.**

In the course of the verification, 3 Corrective Action Requests (CARs), 1 Clarification Requests (CLs) were raised and successfully closed and a FAR was raised. The assessment is included in the report

- **Any uncertainties associated with the verification.**

There are no restrictions of uncertainty.

- **Summary of the verification conclusion.**

Gansu Diantou Bingling Hydropower Development Co., Ltd. has commissioned the China Classification Society Certification Co. Ltd. (CCSC) to carry out the Verified Carbon Standard (VCS) 4th periodic verification of the project, "Gansu Huanghe Bingling Hydropower Station Project" (453) with regard to the relevant requirements of VCS standard Version 4.7. Certification Co. Ltd confirms all verification activities including objectives, scope and criteria, level of assurance, monitoring and monitoring report adhere to VCS Version 4.7 and all associated updated as documented in this report, are complete. CCSC concludes that the project activity "Gansu Huanghe Bingling Hydropower Station Project" in China, as described in the final version of Monitoring Report, meets all relevant requirements for VCS and CCB verification activity and correctly applied the methodology ACM0002 (version 6). Hence Certification Co. Ltd is able to certify that the GHG removals the project during the monitoring period 01-January-2016 to 03-August-2018 amount to 1,743,999 tCO₂e.

5.2 Verification Conclusion

It is CCSC'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, CCSC 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.

CCSC 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 CCSC and the engagement conditions detailed in this report. CCSC cannot be held liable by any party for decisions made or not made based on this report.

In CCSC's opinion the GHG emissions reductions of the "Gansu Huanghe Bingling Hydropower Station Project" for the period 01-January-2016 to 03-August-2018 are fairly stated in the monitoring report (version 2.0 dated 30-October-2024). The GHG emission reductions were calculated correctly on the basis of the approved methodology ACM0002 (version 6) and the monitoring plan contained in the registered PDD.

CCSC 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, CCSC confirms the following statement:

Verification period: From 01-January-2016 to 03-August-2018

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

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
01-Jan-2016 to 31-Dec-2016	615,868	18	0	615,850	0	615,850
01-Jan-2017 to 31-Dec-2017	648,012	18	0	647,994	0	647,994
01-Jan-2018 to 03-Aug-2018	480,166	11	0	480,155	0	480,155
Total	1,744,046	47	0	1,743,999	0	1,743,999

CAR3 were raised to clarify and were successfully closed. Details please refer to Appendix C.

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jan-2016 to 31-Dec-2016	764,452	615,850	-19.44%	By checking the Yellow River Water Resources Bulletin 2016, the water flow in 2016 is much lower than the historical average water flow ² .
01-Jan-2017 to 31-Dec-2017	764,452	647,994	-15.23%	By checking the Yellow River Water Resources Bulletin 2017, the water flow in 2017 is much lower than the historical average water flow ³ .
01-Jan-2018 to 03-Aug-2018	450,293	480,155	6.63%	By checking the Yellow River Water Resources Bulletin 2018, the water flow in 2018 is much higher than the historical average water flow ⁴ .
Total	1,979,197	1,743,999	-11.88%	The emission reduction during this monitoring period is 11.88% lower than the estimated emission reduction in the PDD, by checking the official water resourced bulletin, the difference is caused by the fluctuation of water flow rate during this monitoring period which is reasonable.

² According to 2016 Yellow River Water Resources Bulletin, the water flow is lower water flow year, therefore the power generation is much lower than the estimated average.

³ According to 2017 Yellow River Water Resources Bulletin, the water flow is lower water flow year, therefore the power generation is much lower than the estimated average.

⁴ According to 2018 Yellow River Water Resources Bulletin, the water flow is higher water flow year, therefore the power generation is much higher than the estimated average.

APPENDIX A: ABBREVIATIONS

CAR	Corrective Action Request
CCSC	China Classification Society Certification Co. Ltd.
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CL	Clarification request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
AFOLU	Agriculture, Forestry, and Other Land Use
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
ETN	Electricity Transaction Note
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
MR	Monitoring Report
CSPG	China South Power Grid
PD	Project Description
PP	Project Proponent
PPA	Power Purchase Agreement
QA/QC	Quality Assurance / Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation/Verification Body
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit

APPENDIX B: REFERENCE

/1/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: VER/VCU Monitoring Report for Gansu Huanghe Bingling Hydropower Station Project, version 1.0 dated 23 -August- 2023, version 2.0 dated 30 -October- 2024, version 3.1 dated 03-March-2025
/2/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Emission reduction calculation spreadsheet for Gansu Huanghe Bingling Hydropower Station Project, version 2.0 dated 30 - October- 2024
/3/	Gansu Diantou Bingling Hydropower Development Co., Ltd. and Gansu Province Electric Power Company: Power Purchase Agreement for Gansu Huanghe Bingling Hydropower Station Project
/4/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Diagram of power connection system
/5/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Layout of the project
/6/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: VER monitoring manual and management procedure.
/7/	Gansu Diantou Bingling Hydropower Development Co.,Ltd.: Records of training for on- site staff.
/8/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Daily operation and maintenance records including the backup diesel generator.
/9/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Daily and Monthly reading records of Gansu Huanghe Bingling Hydropower Station Project from 01 -January- 2016 - 03 -August- 2018
/10/	Gansu Province Electric Power Company.: Electricity Sales Receipts and billing receipts from 01 -January- 2016- 03 -August- 2018
/11/	Approved revised CDM PDD (version3.0_dated 04 -November- 2009) Validation opinion on changes in PDD (Revision No.0 dated 16 -November- 2009) https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view
/12/	Gansu Provincial Bureau of Quality and Technical Supervision: Certificate of Metrological Authorization to The Legal Metrological Institution for Gansu Electric Power Research Institute Testing Centre which validity covering this monitoring period 29 -September- 2014 - 28 - September- 2018

/13/	Gansu Electric Power Research Institute Testing Centre: Calibration certificates for meters: M2a, M2b (old and new), M3a, M3b, M4 and M5 covering this monitoring period 01-January-2016 - 0-August-2018
/14/	Gansu Province Electric Power Company: Meter changing notice of M2b
/15/	Gansu Provincial Land Resources Planning and Research Institute: The Reservoir Area Survey Report dated July 2009
/16/	Business license Diantou Bingling Hydropower Development Co., Ltd.
/17/	Northwest investigation and research institution: EIA of Gansu Huanghe Bingling Hydropower Station Project dated November 2004 National Environmental Protection Bureau (NEPB): Approval of EIA dated March 2005
/18/	None resettlement statement of Bingling project by Minhe County and Jishishan County Government, Distribution Table of Compensation Fees for Submerged Land, Bingling Land Acquisition Compensation Audit Report.
/19/	Letter on the Acceptance of Environmental Protection for the Completion of the project
/20/	Gansu Diantou Bingling Hydropower Development Co., Ltd.and Yongjing Green Home Cleaning Co., Ltd: Compilation of Management Systems - Safety and Security
/21/	Gansu Diantou Bingling Hydropower Development Co., Ltd.and Yongjing Green Home Cleaning Co., Ltd: Compilation of Compilation of Management Systems - Labor Protection and Salary System
/22/	Gansu Province Ecological Environment Protection Management Station: Fish enhancement and release certification issued on 20-June-2016, 29-December-2017 and 20-December-2018
/23/	State Economic and Trade Commission: Technical administrative code of electric energy metering (DL/T 448-2016)
/24/	UNFCCC, http://cdm.unfccc.int
/25/	Gold Standard, http://www.goldstandard.org/
/26/	Verified Carbon Standard VCS, https://registry.terra.org/app/search/VCS

/27/	Measures for the Administration of Carbon Emission Trading, issued by Ministry of Ecology and Environment of China, dated 31-December-2020
/28/	Enforced company list in China cap & trade scheme, issued by Ministry of Ecology and Environment of China
/29/	CCER project information platform, http://cdm.ccchina.org.cn/ccer.aspx (can not opened now since the CCER mechanism in China was suspended by the government in 14-March-2017)
/30/	Per capita disposable income of residents in Gansu Province in 2015 and 2018 https://www.gsei.com.cn/
/31/	Registered CDM-PDD, version 3.0 dated 04-November-2009 TÜV SÜD Industrie Service GmbH: CDM Validation Report, Report No. 1113873, dated 10-February-2009 SGS United Kingdom Limited, VALIDATION OPINION FORASSESSMENT OF CHANGES FROMTHEPROJECT ACTIVITY AS DESCRIBEDIN THE REGISTERED PDD, 19.January .2010 https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view
/32/	VER/VCU Monitoring Report for Gansu Huanghe Bingling Hydropower Station Project of previous monitoring period 04-August-2008 - 11-February-2009, 01-January-2013 - 31-December-2015. https://registry.terra.org/app/search/VCS?programType=ISSUANCE&exactResId=453
/33/	VCS Verification Report for Gansu Huanghe Bingling Hydropower Station Project of previous monitoring period 04-August-2008 - 11-February-2009, 01-January-2013 - 31-December- 2015. https://registry.terra.org/app/search/VCS?programType=ISSUANCE&exactResId=453
/34/	CDM/CER Monitoring Reports for Gansu Huanghe Bingling Hydropower Station Project of previous CDM monitoring periods 12-February-2009 to 30-June-2009, 01-July-2009 to 28-June-2010, 29-June-2010 to 28-June-2011, 29-June-2011 to 27-February-2012, 28-February- 2012 to 29-July-2012 and 30-July-2012 to -31-December-2012 https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view

/35/	CDM Verification Reports for Gansu Huanghe Bingling Hydropower Station Project of previous monitoring period 12-February-2009 to 30-June-2009, 01-July- 2009 to 28-June-2010, 29-June-2010 to 28-June-2011, 29-June-2011 to 27-February-2012, 28-February- 2012 to 29-July-2012 and 30-July-2012 to 31-December-2012 https://cdm.unfccc.int/Projects/DB/TUEV-SUED1217926221.96/view
/36/	Ha'erbin Electric Machinery Co., Ltd: Nameplates of the equipment
/37/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Commissioning report
/38/	Feasibility Study Report of Gansu Huanghe Bingling Hydropower Station Project and its approval
/39/	Co-signed by the Ha'erbin Electric Machinery Co., Ltd, and Gansu Diantou Bingling Hydropower Development Co., Ltd.: Equipment Purchase Agreement
/40/	Gansu Diantou Bingling Hydropower Development Co., Ltd.: Statement on no double counting
/41/	Law of the People's Republic of China on Promotion of Employment Order of the President of the People's Republic of China
/42/	Action Plan for Carbon Dioxide Peaking Before 2030 published by the State Council
/43/	Responding to Climate Change: China's Policies and Actions released by the State Council
/44/	Verified Carbon Standard: VCS Standard, Version <u>4.7</u>
/45/	Verified Carbon Standard: VCS Program Guide, version 4.4
/46/	Verified Carbon Standard: VCS Sectoral Scopes https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes
/47/	Verified Carbon Standard: Registration and Issuance Process, version 4.6
/48/	UNFCCC EB: Approved methodology, ACM0002 , version 6
/49/	UNFCCC EB: Approved methodology, AMS.ID, version 10
/50/	instructions regarding the meter readings by project owner.

Persons inter viewed

/51/	Interviewed personnel	Role	Organization
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	Mr. Wang haiming	Plant Director	<u>Gansu Diantou Bingling</u>
	Mr. Tang Wanshou	O&M Staff	Hydropower Development Co., Ltd.
	Mr. Xu Anming		
	Ms. Li Wei		
	Mr. Huang Wanheng		
	Mr. Guo Chunde	Local resident	Local Village
	Mr.Luo Wenxue		
	Ms.Dong Xianglan		
	Mr.Zhao Yonghong	Consultancy	/

/

APPENDIX C:FINDINGS

Table 1. CL from this verification

CL ID	CL-1	Section no.	4.3	Date: 18-Sept-2024
Description of CL				
Please provide the relevant meter change record of meter M2b.				
Project participant response				Date: 25-Oct-2024
The statement of change of meter M2b is an editing error. No change of meter M2b happened in this monitoring period. The updated monitoring report revised the error.				
Documentation provided by project participant				
The updated monitoring report, version 02.				
DOE assessment				Date: 30-Oct-2024
By checking the meters installed at the project site and relevant documents, CCSC can confirm that no meter was changed in this monitoring period. This editing mistake has been updated in the revised monitoring report,the CL was closed.				

Table 2. CAR from this verification

CAR ID	CAR-1	Section no.		Date: 18-Sept-2024
Description of CAR				
The VCS monitoring report template version 4.2 has expired, the current valid version need to be used.				
Project participant response				Date: 25-Oct-2024
The monitoring report template with version 4.3 has been applied to the updated monitoring report.				
Documentation provided by project participant				
The updated monitoring report, version 02.				
DOE assessment				Date: 30-Oct-2024
The monitoring report template version 4.3 was used, and the relevant description has been added into the updated monitoring report, by check the descriptions and relevant evidence, the monitoring report template version 4.3 was Correctly applied in updated monitoring report, and the descriptions was reasonable, the CAR was closed .				
CAR ID	CAR-2	Section no.	4.2, 5.1	Date: 18-Sept-2024
Description of CAR				

The data used in the calculation of ED _y does not consist with the receipt from Grid company.				
Project participant response				Date: 25-Oct-2024
The data used in the calculation of ED _y does not consist with the receipt from Grid company.				
Documentation provided by project participant				
The updated monitoring report with version 02.				
DOE assessment				Date: 30-Oct-2024
By checking the Electricity Sales Receipts and billing receipts from Gansu Province Electric Power Company, the correct value has been used in the updated monitoring report and calculation spreadsheet, CCSC confirmed that value are correctly applied, the CAR was closed.				
CAR ID	CAR-3	Section no.	4.2, 5.2	Date: 18-Sept-2024
Description of CAR				
The value of operational hours of emergency back-up diesel generator in 4.2 does not consist with the value in 5.2.				
Project participant response				Date: 25-Octo2024
The value of operation hours in 4.2 is a typo, the one in 5.2 is correct. The typo is corrected in the updated monitoring report.				
Documentation provided by project participant				
The updated monitoring report with version 02.				
DOE assessment				Date: 30-Oct-2024
By checking the running records of the diesel generator the typo has been revised in the updated monitoring report, the CAR was closed.				

Table 3. FAR from this verification

FAR ID	N/A	Section no.	N/A	Date: N/A
Description of FAR				
N/A				
Project participant response				Date: N/A
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date: N/A

N/A
