



Driving Climate Actions

Project Verification Report

V3.1 - 2020

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COVER PAGE	
Project Verification Report Form (PVR)	
BASIC INFORMATION	
Name of approved GCC Project Verifier / Reference No. (also provide weblink of approved GCC Certificate)	Carbon Check (India) Private Limited. /GCCV004/01 http://globalcarboncouncil.com/wp-content/uploads/2021/10/carbon-check-india-private-limited-ccipl.pdf
Type of Accreditation	<input type="checkbox"/> Individual Track ¹ <input checked="" type="checkbox"/> CDM Accreditation E-0052 Valid from 28/03/2019 until 01/06/2024 https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0052 <input checked="" type="checkbox"/> ISO 14065 Accreditation https://nabcb.qci.org.in/wp-content/uploads/2023/06/004.html Valid from 28/06/2021 until 27/06/2024
Approved GCC Scopes and GHG Sectoral scopes for Project Verification	GCC Scope <ul style="list-style-type: none"> • Green House Gas (GHG# - ACC) • Environmental No-harm (E+) • Social No-harm (S+) • Sustainable Development Goals (SDG+) GHG Sectoral Scope <ul style="list-style-type: none"> • Energy (renewable/non-renewable sources)
Validity of GCC approval of Verifier	08/03/2023 to 31/05/2024
Title, completion date, and Version number of the PSF to which this report applies	Title: Sichuan Qianwei Hydropower Project Completion date: 20/09/2023 Version: 03
Title of the project activity	Sichuan Qianwei Hydropower Project
Project submission reference no. (as provided by GCC Program during GSC)	S00432
Eligible GCC Project Type² as per the Project Standard	<input checked="" type="checkbox"/> Type A: <input type="checkbox"/> Type A1


¹ **Note:** GCC Verifier under Individual tack is not eligible to conduct verifications for the GCC project that intends to supply carbon credits (ACCs) for CORSIA requirements.

² Project Types defined in Project Standard and Program Definitions on GCC website.

(Tick applicable project type)	<input checked="" type="checkbox"/> Type A2 <input checked="" type="checkbox"/> Sub-Type 1 <input type="checkbox"/> Sub-Type 2 <input type="checkbox"/> Sub-Type 3 <input type="checkbox"/> Sub-Type 4 <input type="checkbox"/> Type B – De-registered CDM Projects: <input type="checkbox"/> Type B1 <input type="checkbox"/> Type ³ B2					
Date of completion of Local stakeholder consultation	Local stakeholder consultation was conducted on 27/01/2013.					
Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.	27/09/2022 – 11/10/2022 https://www.globalcarboncouncil.com/global-stakeholders-consultation/					
Name of Entity requesting verification service <small>(can be Project Owners themselves or any Entity having authorization of Project Owners)</small>	Guizhou Search CO2 Environmental Technology Service Co., Ltd					
Contact details of the representative of the Entity, requesting verification service <small>(Focal Point assigned for all communications)</small>	WANG Can Guizhou Search CO2 Environmental Technology Service Co., Ltd Telephone: - +86-13984899994 Email: - business@quantacarbon.com					
Country where project is located	People’s Republic of China					
GPS coordinates of the Project site(s)	<table border="1"> <thead> <tr> <th data-bbox="678 1509 1070 1554">Latitude (N)</th> <th data-bbox="1070 1509 1453 1554">Longitude (E)</th> </tr> </thead> <tbody> <tr> <td data-bbox="678 1554 1070 1666">29°14'14.4" N (29.237333° N)</td> <td data-bbox="1070 1554 1453 1666">103°55'34.4" E (103.926222 °E)</td> </tr> </tbody> </table>	Latitude (N)	Longitude (E)	29°14'14.4" N (29.237333° N)	103°55'34.4" E (103.926222 °E)	
Latitude (N)	Longitude (E)					
29°14'14.4" N (29.237333° N)	103°55'34.4" E (103.926222 °E)					
Applied methodologies <small>(approved methodologies of GCC or CDM can be used)</small>	ACM0002. Grid connected electricity generation from renewable sources; Version 21.0					
GHG Sectoral scopes linked to the applied methodologies	Scope 1 - energy industries (renewable / non-renewable sources)					
Project Verification Criteria:	<input checked="" type="checkbox"/> ISO 14064-2, ISO 14064-3					

³ GCC Project Verifier shall conduct Project Verification for all project types except B₂.

<p>Mandatory requirements to be assessed</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> GCC Rules and Requirements <input checked="" type="checkbox"/> Applicable Approved Methodology <input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> National Sustainable Development Criteria (if any) <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Baseline <input checked="" type="checkbox"/> Additionality <input checked="" type="checkbox"/> Emission Reduction calculations <input checked="" type="checkbox"/> Monitoring Plan <input checked="" type="checkbox"/> No GHG Double Counting <input checked="" type="checkbox"/> Local Stakeholder Consultation Process <input checked="" type="checkbox"/> Global Stakeholder Consultation Process <input checked="" type="checkbox"/> United Nations Sustainable Development Goals (Goal No 13- Climate Change)
<p>Project Verification Criteria: Optional requirements to be assessed</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Environmental Safeguards Standard and do-no-harm criteria <input checked="" type="checkbox"/> Social Safeguards Standard do-no-harm criteria <input checked="" type="checkbox"/> United Nations Sustainable Development Goals (in additional to SDG 13) <input checked="" type="checkbox"/> CORSIA requirements
<p>Project Verifier's Confirmation: The <i>GCC Project Verifier</i> has verified the GCC project activity and therefore confirms the following:</p>	<p>The GCC Project Verifier Carbon Check (India) Private Limited certifies the following with respect to the GCC Project Sichuan Qianwei Hydropower Project.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The Project Owner has correctly described the Project Activity in the Project Submission Form (version 03, dated 20/09/2023) including the applicability of the approved CDM methodology ACM0002, version 21.0 and meets the methodology applicability conditions and is expected to achieve the forecasted real and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reductions estimates correctly and conservatively. <input checked="" type="checkbox"/> The Project Activity is likely to generate GHG emission reductions amounting to the estimated 1,116,837 tCO_{2e} per year, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3. <input checked="" type="checkbox"/> The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental

	<p>and Social Safeguards Standard, and is likely to achieve the following labels:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Environmental No-net-harm Label (E⁺) <input checked="" type="checkbox"/> Social No-net-harm Label (S⁺) <p><input checked="" type="checkbox"/> The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard, and contributes to achieving a total of 3 SDGs, with the following⁴ SDG certification label (SDG⁺):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bronze SDG Label <input checked="" type="checkbox"/> Silver SDG Label <input type="checkbox"/> Gold SDG Label <input type="checkbox"/> Platinum SDG Label <input type="checkbox"/> Diamond SDG Label <p><input checked="" type="checkbox"/> The Project Activity complies with all the applicable GCC rules⁵ and therefore recommends GCC Program to register the Project activity with above mentioned labels.</p>
<p>Project Verification Report, reference number and date of approval</p>	<p>Reference number: - CCIPL1420/GCC/VAL/SQHP/20220629</p> <p>Version: - 03</p> <p>Date of Approval: - 25/09/2023</p>
<p>Name of the authorised personnel of GCC Project Verifier and his/her signature with date</p>	 <p>Vikash Kumar Singh, Compliance Officer</p> <p>Date: - 25/09/2023</p>

⁴ SDG Certification labels: Bronze label (1 star): by achieving 2 out of 17 SDGs; Silver label (2 star): by achieving 3 out of 17 SDGs; Gold label (3 star): by achieving 4 out of 17 SDGs; Platinum label (4 star): by achieving 5 out of 17 SDGs; and Diamond label (5 star): by achieving more than 5 out of 17 SDGs.

⁵ “GCC Rules” are defined in Project Definitions and refers to the rules and requirements set out by the GCC program related to GHG emission reductions and its voluntary certification labels and are available on the GCC Program’s public website: <https://www.globalcarboncouncil.com/resource-centre.html>

1. PROJECT VERIFICATION REPORT

Section A. Executive summary

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Guizhou Search CO2 Environmental Technology Service Co., Ltd has appointed the Verification Body, Carbon Check (India) Private Ltd., to perform an independent project verification of the Project “Sichuan Qianwei Hydropower Project” in China (hereafter referred to as “project activity”). This report summarizes the findings of verification of the project, performed on the basis of GCC rules and requirements as well as criteria given to provide for consistent project operations, monitoring and reporting. This report contains the findings and resolutions from the project verification and a verification opinion.

The project is invested in and operated by Sichuan Minjiang Port and Channel Development Co., Ltd. /11/ and involves installation of 9 units of generators with unit capacity of 55.56 MW each (aggregating to 500.04 MW). It is located downstream of Sichuan Province, Qianwei County of Leshan City /7/. The expected operational lifespan of the project activity is 30 years which is based on the Preliminary Design Document /4/. The project activity will generate emission reductions by generating the clean electricity from hydro energy and feed the generated electricity to the Central China Power Grid (CCPG), which is mainly dominated by thermal / fossil fuel-based power plants.

The expected average annual electricity supplied to grid will be of 1,952,342 MWh. The project is expected to achieve an annual average emission reduction of 1,116,837 tCO₂e. The total emission reductions during the fixed 10-year crediting period will be 11,168,370 tCO₂e.

The project also contributes to Environmental No-net-harm Label (E+), Social No-net-harm Label (S+), CORSIA requirements (C+) and 3 United Nations Sustainable Development Goals (SDG+) i.e., SDG 7, 8 and 13.

The Project Activity complies with all the applicable requirement of the GCC Program and ICAO’s requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 23-25 /B02-6/, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project

The purpose of the project verification is to have a thorough and independent assessment of the proposed project activity against the applicable GCC rules and requirements, including those specified in the Project Standard applied methodology / methodological tools and any other requirements, in particular, the project's baseline, monitoring plan and the host Party criteria. These are verified to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Verification requirement for all GCC projects activity is necessary to provide assurance to stakeholders of the quality of the Project Activity and its intended

generation of Approved Carbon Credits (ACCs).

Location

The Project Activity is implemented in Qianwei County, Leshan City, Sichuan Province, P.R. China with GPS co-ordinates 29°14'14.4" N / 29.237333° N Latitude and 103°55'34.4" E / 103.926222° E Longitude. /7/

Scope of the GCC project verification

The project verification scope is defined as the independent and objective review of the project submission form, version 01, dated 20/02/2023 /01-a/ and final project submission form, version 03, dated 20/09/2023 /01-b/ and also listed for global stakeholder consultation on GCC website with reference no S00432⁶. The PSF is reviewed against the relevant criteria (see above) and decisions by the GCC, including the CDM approved baseline and monitoring methodology ACM0002, version 21.0 /B01/. The verification team has, based on the recommendations in the GCC Project Standard, Version 3.1 /B02-1/ and Project Verification Standard Version 3.1 /B02-2/ employed a rule-based approach, focusing on the identification of significant risks for project implementation and the generation of ACCs.

The verification is not meant to provide any consulting towards the project (owner)s. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the program design.

While carrying out the verification, CCIPL determines if the PSF complies with the requirements of the applicability conditions of the selected methodology ACM0002, version 21.0 /B01/, guidance issued by the GCC and assess the claims and assumptions made in the PSF, version 1.0 /01-a/ without limitation on the information provided by the project participant.

Verification Process

Strategic risk Analysis and delineation of the GCC project verification and sampling plan: -

CC IPL employed the following GCC project verification (termed as "Project Verification" as per GCC) process:

1. Conflict of interest review at the time of contract review,
2. Selection of Audit Team at the time of contract review,
3. Kick-off meeting with the client,
4. Review of the draft PSF listed on GCC website for public consultation,
5. Development of the GCC project verification plan and sampling plan
6. Desktop review and evaluation of emission reduction calculations,
7. Follow-up interaction with the client and final statement and report development.

⁶ <https://projects.globalcarboncouncil.com/project/337>

The GCC project verification process has utilized to gain an understanding of the: -

- Project's design, GHG emission sources and reductions,
- Baseline determination and additionality,
- GHG monitoring plan,
- Environmental & Social impacts,
- Stakeholder's consultation,
- SD indicators integrated with the project and
- Verify the collection and handling of data, the calculations that lead to the results, and the means for reporting the associated data and results

Development of the GCC project verification Plan: -

The Audit Team formally documented its GCC project verification plan. The GCC project verification plan was developed based on discussion of key elements of the GCC project verification process during the kick-off meeting and as per the criteria of engagement. Client had the opportunity to comment on key elements of this plan for GCC project verification. Based on items discussed above and agreed upon with the client in the signed contract, the plan identified the CCIPL audit team members based on following:

- Project level of assurance (which is reasonable as per GCC requirements),
- Materiality threshold and
- Standards of evaluation and reporting for the GCC project verification.

It also provides an outline of the GCC project verification process and established project deliverables.

The project verification consists of the following four phases: -

- I. A desk review of the project submission form
 - a. A review of the data and information
 - b. Cross checks between information provided in the PSF, version 1.2 /01-b/ and information from sources with all necessary means without limitations to the information provided by the project participant.
- II. Follow-up interviews with project stakeholders
 - a. Interviews with relevant stakeholders in host country with personnel having knowledge with the project development.
 - b. Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project owner.
- III. Reference to available information relating to projects or technologies similar projects under verification and review based on the approved methodology ACM0002, version 21.0/B01/ being applied of the appropriateness of formulae and accuracy of calculations.
- IV. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The Verification team confirms the contractual relationship signed between the Verification Body, CCIPL and the project owner. The team assigned to the GCC project verification meets the CCIPL's internal procedures including the GCC requirements for the team composition and competence. The GCC project verification team has conducted a thorough contract review as per GCC and CCIPL's procedures and requirements.

The report is based on the assessment of the PSF /01/ undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews and stakeholder interviews, review of the applicable / applied methodology /B01/ and their underlying formulae and calculations.

This report contains the details of the resolution of findings, and from the verification and a verification opinion on the proposed Project Activity is provided in the report as all the raised findings are successfully resolved by the project owner. Hereby confirm that the program design in the documents is sound and reasonable and meets the stated requirements and identified criteria.

Conclusion

The review of the PSF, supporting documentation and subsequent follow-up actions (on-site audit and interviews) have provided CCIPL with sufficient evidence to determine the fulfilment of stated criteria. CCIPL is of the opinion that the project activity "Sichuan Qianwei Hydropower Project" in P.R. China as described in the final PSF (Version 03, dated 20/09/2023) /01-b/ meets all relevant requirements of GCC and has correctly applied the GCC baseline and monitoring methodology ACM0002 "Grid connected electricity generation from renewable sources; Version 21.0" /B01/.

The review of the PSF, version 1.0 /01-a/, supporting documentation and subsequent follow-up actions (on-site audit and interviews) have provided CCIPL with sufficient evidence to determine the fulfilment of the voluntary labels E+ /B02-4/, S+ /B02-4/ and SDG+ /B02-5/ with silver rating. Therefore, the project is being recommended to GCC Steering Committee for request for registration.

"The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.3 paragraph 22-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project".

Carbon Check (India) Private Ltd. therefore is able to recommend the project to the GCC for registration.

Section B. Project Verification team, technical reviewer and approver

>>

B.1. Project Verification team

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Project Verification findings
1.	Team Leader / Technical Expert / Financial Expert	IR	Agarwalla	Sanjay Kumar	CC IPL	X	-	X	X
2.	Trainee Assessor	IR	Nadkarni	Tanvi	CC IPL	X	-	X	X
3.	Local Expert	ER	Shen	Nara	CC IPL	X	X	X	X

B.2. Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)
1.	Technical reviewer	IR	Seshan	Ranganathan	CC IPL
2.	Approver	IR	Singh	Vikash Kumar	CC IPL

Section C. Means of Project Verification

C.1. Desk/document review

>>

The report is based on the assessment of both the initial PSF/1-a/ and final PSF/01-b/ undertaken through verification of information using the source provided by the project owner, stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., site visit, interviews), the review of the applicable approved methodological and relevant tools, guidance and GCC decisions. Additionally, the cross checks were performed for information provided in the PSF using information from sources other than the verification sources, the verification team's sectoral or local expertise and, if necessary, independent background investigations.

List of all documents reviewed or referenced during the project verification is provided in Appendix-3.

C.2. On-site inspection

Duration of on-site inspection: 19/12/2022				
No.	Activity performed on-site	Site location	Date	Team member
1.	Discussions and review of: <ul style="list-style-type: none"> • Project Design • Project Technology • Project boundary • Applicability of CDM methodology • Environmental Management Plan/ EIA • Local stakeholders meeting process • Management structure with Roles and Responsibilities • Project implementation schedule • Pre project (existing) scenario to meet the energy (heat and electricity) demand • Monitoring Plan • Socio-economic Impacts of the project activity • Sustainability aspects of the project (SDGs) • Baseline Scenarios and alternatives • Project additionality Emission reduction calculations 	Qianwei County, Leshan City, China	19/12/2022	Sanjay Kumar Agarwalla, Tanvi Nadkarni (Remotely) Nara Shen (On-site)

An on-site visit was conducted on 19/12/2022 with the help of a local expert for verification of the project activity as per the conditions in lined under section 28 (a) of clause 3.2.5 of the GCC Verification Standard version 3.1 /B02-2/. The remaining members of the verification team conducted their evaluations remotely while in continuous audio and video contact with the local expert and project owner representatives.

In line with verification standard v3.1 /B02-2/, the verification team conducted the verification for this project using standard auditing techniques defined in clause 3.2.4 of the GCC Verification Standard version 3.1 /B02-2/, which is discussed below:

1. Cross checks between information provided in the PSF, version 1.0 dated 10/05/2022 /01-a/ and information from third-party or publicly available sources other than those used; if necessary, independent background investigations.
2. Telephone / Video interviews with relevant stakeholders in the host country, such as personnel with knowledge of the Project design and implementation.
3. Cross checks between the information provided by interviewed personnel (i.e., by checking sources or other interviews) to ensure that no relevant information has been omitted.
4. Reference to available information relating project verification techniques to assess project technologies similar to the proposed Project under project verification.
5. Review, based on the selected methodologies, the selected standardized baselines, and other applied methodological regulatory documents, of the appropriateness of formulae and accuracy of calculations.

C.3. Interviews

Project Verification Report

No.	Interview			Date	Subject	Team member	
	Last name	First name	Affiliation				
1.	Xingming	Luo	Sichuan Minjiang Port and Channel Development Co., Ltd – Operation & Maintenance Manager	19/12/2022	Project Description, Baseline identification, Project Boundary. project financing, Additionality, Baseline Calculation, Regulatory requirements, project status, Monitoring procedures & Calibration of meters, Operation and Maintenance, Data recording, Emergency procedures, etc. Mode of Invitation for stakeholders meeting, Stakeholders meeting consultation, advantages and disadvantages of the project, employment generation, SDG status, Environment and social net harm, etc.	Sanjay Kumar Agarwalla, Tanvi Nadkarni (Remotely) Nara Shen (On-site)	
2.	Wen	Zou	Sichuan Minjiang Port and Channel Development Co., Ltd – Safety and Environmental Protection Department	19/12/2022			
3.	Xuehui	Wang	Sichuan Minjiang Port and Channel Development Co., Ltd – Human Resource Department	19/12/2022			
4.	Ge	Liu	Guizhou Quanta Carbon Environmental Technology Co., Ltd - Manager	19/12/2022			
5.	Bin	Wei	Guangxi Tainan Engineering Consulting Co., Ltd – General Manger	19/12/2022			Feasibility Study Report (FSR)
6.	Aizhen	Wang	Guangxi Electric Power Industry Survey and Design Institute – Engineer	19/12/2022			Environmental Impact Assessment (EIA)

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7.	Kan	Peng	Electricity generation administration (Control Headquarter)	19/12/2022	Mode of Invitation for stakeholders, advantages and disadvantages of the project, employment generation, SDG status, Environment, and social net harm, etc.	
8.	Bangxu	Yuan	Local Stakeholder – Villager, Qianwei County of Leshan Municipal Ecology and Environment Bureau	19/12/2022		
9.	Jianjun	Gan	Local Stakeholder – Villager, Xiangba Group 2, Tangba Township, Qianwei County	19/12/2022		
10.	Chunmei	Peng	Local Stakeholder – Villager, Xiangba Group 2, Tangba Township, Qianwei County	19/12/2022		
11.	Yan	Hu	Local Stakeholder – Villager, Hulu Village, Mindong Township, Qianwei County	19/12/2022		
12.	Yuanrong	Wang	Local Stakeholder – Villager, Tangba Community Group 2, Qianwei County	19/12/2022		

C.4. Sampling approach

>>

No sampling approach is used for this project verification process.

C.5. Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	Applicable to Project Types	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)				
Identification and Eligibility of project type	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
General description of project activity	A ₁ , A ₂ , B ₁ , B ₂		01	-
Application and selection of methodologies and standardized baselines	A ₁ , A ₂ , B ₁ , B ₂			
- Application of methodologies and standardized baselines	A ₁ , A ₂ , B ₁ , B ₂	-	01	-
- Deviation from methodology and/or methodological tool	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
- Project boundary, sources and GHGs	A ₁ , A ₂ , B ₁ , B ₂	01	01	-
- Baseline scenario	A ₁ , A ₂ , B ₁ , B ₂	-	01	-
- Demonstration of additionality including the Legal Requirements test	A ₁ , A ₂ , B ₁ , B ₂	02	-	-
- Estimation of emission reductions or net anthropogenic removals	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
- Monitoring plan	A ₁ , A ₂ , B ₁ , B ₂	-	01	-
Start date, crediting period and duration	A ₁ , A ₂ , B ₁ , B ₂	01	-	-
Environmental impacts	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
Local stakeholder consultation	A ₁ , A ₂ , B ₁	01	01	-
Approval & Authorization- Host Country Clearance	A ₁ , A ₂ , B ₁ , B ₂	-	-	-
Project Owner- Identification and communication	A ₁ , A ₂ , B ₁ , B ₂	01	-	-
Global stakeholder consultation	A ₁ , A ₂ , B ₁	-	-	-
Others (PSF Template)	A ₁ , A ₂ , B ₁ , B ₂		03	
Others (Supporting Documents)		01	-	-
VOLUNTARY CERTIFICATION LABELS				
Environmental Safeguards (E ⁺)	A ₁ , A ₂ , B ₁	01	-	-
Social Safeguards (S ⁺)	A ₁ , A ₂ , B ₁			-
Sustainable development Goals (SDG ⁺)	A ₁ , A ₂ , B ₁			-
Authorization on Double Counting from Host Country (only for CORSIA)	A ₁ , A ₂ , B ₁	-	-	-
CORSIA Eligibility (C ⁺)		-	01	01
Total		08	10	01

Section D. Project Verification findings

D.1. Identification and eligibility of project type

Means of Project Verification	Desk Review and Interviews
Findings	CL 06 was raised and closed successfully. Please refer to appendix 4 for further details
Conclusion	The Verification team reviewed the PSF /01-b/ and confirms that the Project Owner determines the type of proposed GCC project activity as Type A2. The paragraph 11 of GCC Project Standard (version 03.1) /B02-1/ says "These types of projects are prompt-start and had already started their operations as of 5 July 2020. Their start date of operations shall be after 1 January 2016 but before 5 July 2022. These types of projects shall submit complete registration requests to the GCC Program no later

	<p><i>than 5 July 2022. The start date of the Crediting Period for such GCC Project Activities shall be on or after 1 Jan 2016 but not more than one year after the start date of the operations of the GCC Project Activity.”</i></p> <p>Furthermore, as per §03 (c), (iv) of GCC Clarification No. 01, V. 1.3, “<i>The deadline for the submission of A2 projects has been extended. As per the clarification, A2 type project are required to make initial submission to GCC Program, for uploading for global stakeholder consultation, prior to 5 July 2022 (new requirement)”</i>. /B01-6/</p> <p>The proposed project activity is started its operations on 30/05/2020 /05/, its start date of crediting period is 30/05/2020 and submitted for listing on the GCC website on 20/05/2022⁷. This complies with the requirement of paragraph 11 of the GCC Project Standard (version 03.1) /B02-1/ including Clarification N0. 01 /B02-6/ and paragraph 25 (b) of GCC Project Verification Standard (version 03.1) /B02-2/.</p> <p>Furthermore, the project verification team along with the help of local expert checked the other GHG programmes like, Clean Development Mechanism (CDM) Registry /B05/, VERRA Registry /B06/, and Gold Standard Registry /B07/, for the information regarding the consistency of the title of the project activity, GPS coordinates, Legal Ownership of the Project activity to determine if the project was part of any other GHG Program prior to commencement of this verification. It was confirmed that the project owner has not submitted the said project activity under any other GHG program apart from GCC.</p>
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D.2. General description of project activity

Means of Project Verification	Desk Review and Interviews										
Findings	CL 02, CAR 04, and CAR 05 were raised and closed successfully. Please refer to Appendix 4 for further details.										
Conclusion	<p>The description of the project activity contained in the PSF version 02 /01-b/ can be considered transparent, detailed, and provides a clear overview of the project. The same was confirmed by means of document review and interviews with PO representatives to verify the accuracy and completeness of the project description.</p> <p>During the on-site audit, Project verification team has confirmed that the project includes installation of total 9 units of generators, each having capacity of 55.56 MW, by means of interview and cross checking the total capacity with the Electricity sale agreement /10/ and project test-run certificate /6-a/. The expected operational lifetime is 30 years as per the manufacturer’s technical specifications for the generators /8/ and Preliminary Design Document /4/. The purpose of this project activity is to generate and feed GHG free electricity, to the Central China Power Grid (CCPG), aiming at reduction of GHG emissions. Project Verifier has confirmed the same through equipment purchase contracts made with suppliers namely Zhefu Group Co., Ltd., and Toshiba Hydropower Hangzhou Co., Ltd. on 15 July 2016 /5b/ /5c/. The connection point is located at 220 kV Jinzhou first line of Jiazhou substation 220 kV Jinzhou second line of Jiazhou substation.</p> <p>The project activity includes 9 hydraulic turbines each connected to 1 generator (total 9 generators) from 3 manufacturers, the details of which are given below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0e0e0;">Manufacturer</th> <th style="background-color: #e0e0e0;">Turbine Model number</th> <th style="background-color: #e0e0e0;">Generator Model number</th> <th style="background-color: #e0e0e0;">Corresponding turbine and generator unit number</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Manufacturer	Turbine Model number	Generator Model number	Corresponding turbine and generator unit number				
Manufacturer	Turbine Model number	Generator Model number	Corresponding turbine and generator unit number								

⁷ <https://projects.globalcarboncouncil.com/project/337>

	Dongfang Electric Machinery Co., Ltd	GZD909C-WP-750	SFWG55.6-72/8800	1, 2
	Toshiba Hydro Power (Hangzhou) Co., Ltd.	GZ(TB5013)-WP-750		3, 4, 7, 8
	Hangzhou Fuchunjiang Hydropower Equipment Co., Ltd.	GZ-WP-740		5, 6, 9
<p>The number, manufacturer and model of the installed turbines and generators can be confirmed from the turbine units purchase contracts /5b/ /5c/ and technical specifications /8/.</p> <p>The legal ownership of the project activity facilities is with Sichuan Minjiang Port and Channel Development Co., Ltd. This has been checked with the electricity sale contract/10/ and equipment purchase contract/5b//5c/, where legal ownership of the project activity establishment and equipment is confirmed. Sichuan Minjiang Port and Channel Development Co., Ltd. has identified Guizhou Search CO2 Environmental Technology Service Co., Ltd as the GCC project owner through letter of authorization/29/. The names of project owner and legal owner are also found to be consistent with the details provided as project owner in PSF/01-b/ and letter of authorization/29/ and is found appropriate.</p> <p>The project activity is located in Qianwei County, Leshan City, in China. The coordinates of the physical site of the project activity are:</p> <ul style="list-style-type: none"> • Latitude: 29°14'14.4" N / 29.237333°N • Longitude: 103°55'34.4" E / 103.926222°E <p>The geographic coordinate of the project activity is mentioned correctly in the PSF and the same is validated and verified through google maps and on-site audit by the project verification team.</p> <p>The project boundary includes the project site where the plant has been installed, power evacuation infrastructure including the other power stations feeding to the connected electricity grid, energy metering points, switch yards and other civil constructs.</p> <p>The project is expected to generate and feed to the connected Central China Power Grid, GHG free electricity with GHG emission reduction of 11,168,370 tCO₂e over 10-year period of project activity with an average of 1,116,837 tCO₂e GHG emission reduction per year.</p> <p>As stated in the PSF /01-b/, the project activity also voluntarily contributes to Environmental No-net-harm Label (E+), Social No-net-harm Label (S+) and 3 United Nations Sustainable Development Goals (SDG+).</p> <p>As per the PSF /01-b/, start date of the Project Activity is 30/05/2020 (Start date of operation of the Project). The same is in accordance with requirements of §38 of Project Standard (version 03.1) /B02-1/.</p> <p>Crediting period is a fixed crediting period for the Project Activity, from 30/05/2020 to 29/05/2030 i.e., of 10 years. This is cross checked by PSF /01-b/ and conforms the requirement of §39 and §40 of Project Standard Version 03.1 /B02-1/.</p> <p>CC IPL verification team is therefore able to confirm that the description of the proposed Project Activity in the PSF is accurate and complete and it provides a clear understanding of the Project Activity. The same is found to be acceptable.</p>				

D.3. Application and selection of methodologies and standardized baselines

D.3.1 Application of methodology and standardized baselines

Means of Project Verification	Desk Review and Interviews		
Findings	CAR 07 was raised and closed successfully. Please refer to Appendix 4 for further details.		
Conclusion	<p>The CDM methodology applied is ACM0002, version 21.0/B01/. It is applicable to grid-connected electricity generation from renewable sources. Applicability of the methodology is confirmed by means of interviews with the PO representatives and document review.</p> <p>The applied methodology version of the baseline and monitoring methodology /B01/ is valid at the time of submission of the PSF for global stakeholder consultation. All applicability criteria in the methodology are assessed in the below table:</p>		
	Applicability criteria of the methodology (ACM0002, version 21.0)	Justification in the PSF	DOE assessment
	<p>Paragraph 4 of the applied methodology: This methodology is applicable to grid-connected renewable energy power generation project activities that:</p> <ul style="list-style-type: none"> (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s) 	<p>The project activity involves construction and operation of grid-connected Hydropower (renewable energy) project at a site where no renewable energy power plant was operated prior to the implementation of the project activity and therefore a “green field power plant” as per the definition of the methodology and hence complies to the applicability condition 4 (a). Hence the project activity meets the applicability condition of the methodology.</p>	<p>The project activity involves installation of a new grid connected renewable hydro power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield power plant). This can be confirmed from the preliminary design document /4/ and construction approval /15/. Hence point (a) is applicable. Project is supplying electricity to Central China Power Grid (CCPG) which has been confirmed by the project verification team during site visit and by reviewing the electricity sale contract /10/.</p> <p>Hence the project is in compliance with latest version of the methodology ACM0002 Version 21.0 /B01/.</p>
<p>Paragraph 5 of the applied methodology: In case the project activity involves the integration of a</p>	<p>The project activity does not involve the integration of a BESS.</p>	<p>The project does not involve integration of BESS which was confirmed by reviewing preliminary design</p>	

	<p>BESS, the methodology is applicable to grid-connected renewable energy power generation project activities that:</p> <p>(a) Integrate BESS with a Greenfield power plant;</p> <p>(b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic¹ or wind power plant(s)/unit(s);</p> <p>(c) Integrate a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s);</p> <p>(d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s).</p>		<p>document /4/and during site-visit.</p>
	<p>Paragraph 6(a) of the applied methodology:</p> <p>The methodology is applicable under the following conditions:</p> <ul style="list-style-type: none"> • Hydro power plant/unit with or without reservoir, • Wind power plant/unit, • Geothermal power plant/unit, • Solar power plant/unit, • Wave power plant/unit or • Tidal power plant/unit. 	<p>The project activity involves construction and operation of greenfield grid-connected hydropower project and hence complies to the applicability condition 6 (a) of the methodology.</p> <p>Since the project activity does not include capacity additions, retrofits, rehabilitations, or replacements of existing plant/unit the applicability condition (b) is not applicable/relevant for the project activity.</p>	<p>The project activity is a hydro power plant with a single reservoir. The information provided follows the Methodology requirements and was confirmed by Sichuan Provincial People's Government Approval of the site for construction /15/ for the project activity, electricity sale contract /10/ and during on-site inspection.</p>
	<p>Paragraph 6(b) of the applied methodology:</p> <p>In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal</p>		<p>As the Project activity is a Greenfield hydro power installation project and does not involve any rehabilitations, retrofit, replacements or capacity additions, this criterion is not applicable.</p>

	<p>power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.</p>	<p>The project activity is not applicable to paragraph 5 (a); therefore, it is not applicable to condition 6(c).</p> <p>The project activity does not involve the integration of a BESS. So, condition (d) is not applicable.</p>	<p>This was confirmed by document reviews and site inspection.</p>
	<p>Paragraph 6 (c) of the applied methodology:</p> <p>In case of Greenfield project activities applicable under paragraph 5 (a) above, the project participants shall demonstrate that the BESS was an integral part of the design of the renewable energy project activity (e.g. by referring to feasibility studies or investment decision documents);</p>		<p>The project does not involve integration of BESS which was confirmed during site-visit.</p>
	<p>Paragraph 6 (d) of the applied methodology:</p> <p>The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies 2 may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section 5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the</p>		<p>The project does not involve integration of BESS which was confirmed by reviewing the preliminary design document /4/ and during site-visit.</p>

	<p>project renewable energy plant during a monitoring period. During the time periods (e.g. week(s), months(s)) when the BESS consumes more than 2 per cent of the electricity for charging, the project participant shall not be entitled to issuance of the certified emission reductions for the concerned periods of the monitoring period.</p>		
	<p>Paragraph 7 of the applied methodology: In case of hydro power plants, one of the following conditions shall apply: a. The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or b. The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (7), is greater than 4 W/m²; or c. The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m²; or d. The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m², all of the following conditions shall apply: i. The power density calculated using the total installed capacity of the integrated project, as per</p>	<p>The project activity involves construction and operation of greenfield grid-connected hydropower project using renewable energy for generation of electricity hence the applicability condition “c” is applicable/relevant to the project activity as the applicability conditions is related to hydropower projects.</p> <p>The project activity is a hydropower project. Hence, the power density has been calculated by using formula in Section 5.4.3. of ACM0002 methodology, stated as Equation (7).</p> $PD = \frac{500,040,000 - 0}{159,900,000 - 0} = 31.27 \text{ W/m}^2$ <p>The power density of the proposed project is 31.27 W/m², which is greater than 4 W/m².</p>	<p>The project activity results in a new single reservoir which corresponds to condition (c) and was confirmed during site visit by the project verification team.</p> <p>The power density has been calculated in accordance with equation (7) of ACM0002 version 21.0 and is greater than 4 W/m². The area of the reservoir was checked by the project verification team by reviewing the project design document /4/ and is found to be consistent. The installed capacity of the project activity is confirmed from the technical specifications of the generators /8/ and commissioning document /6a/.</p> <p>Therefore, the information provided follows the Methodology requirements</p>

	<p>equation (8), is greater than 4 W/m²;</p> <p>ii. Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity;</p> <p>iii. Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m² shall be:</p> <p>a. Lower than or equal to 15 MW; and</p> <p>b. Less than 10 per cent of the total installed capacity of integrated hydro power project.</p>		
	<p>Paragraph 8 of the applied methodology: In the case of integrated hydro power projects, project participants shall:</p> <p>(a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or</p> <p>(b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the</p>	<p>The project activity does not involve integrated hydropower projects.</p>	<p>The project activity is an installation of single greenfield grid connected hydro power plant with a single new reservoir. This was confirmed by reviewing the project design document /4/ and electricity sale agreement /10/. This criterion is not applicable to the project activity as it is not an integrated hydro power plant and was confirmed by the project verification team during site visit.</p>

	<p>water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the CDM project activity.</p>		
	<p>Paragraph 9 of the applied methodology: The methodology is not applicable to the following:</p> <ul style="list-style-type: none"> • Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; • Biomass fired power plants/units; 	<p>The project activity involves construction and operation of greenfield grid-connected hydropower project using renewable energy for generation of electricity hence the applicability condition “9” is not relevant as the same pertains to switching from fossil fuels to renewable energy sources or biomass fired power plants/units.</p>	<p>The project activity is an installation of single greenfield grid connected hydro power plant with a single new reservoir. This was confirmed by reviewing the project design document /4/ and electricity sale agreement /10/. Since the Project activity is neither a fossil fuel switch power project nor a biomass fired power project, this criterion is not applicable. This was confirmed during site inspection as well.</p>
	<p>Paragraph 10 of the applied methodology: In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is “the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance”.</p>	<p>The project activity involves construction and operation of greenfield grid-connected hydropower project using renewable energy for generation of electricity hence the applicability condition 10 is not relevant as the same pertains to retrofits, rehabilitations, replacements, or capacity additions.</p>	<p>The project activity is an installation of single greenfield grid connected hydro power plant with a single new reservoir. This was confirmed by reviewing the project design document /4/ and electricity sale agreement /10/. As the Project activity is a Greenfield hydro power installation project and does not involve any rehabilitations, retrofit, replacements or capacity additions, this criterion is not applicable. This was confirmed during site inspection as well.</p>

	<p>Paragraph 4 of the applied TOOL07: Tool to calculate the emission factor for an electricity system; Version 7.0</p> <p>Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project participants, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in “Appendix 1: Procedures related to off-grid power generation” should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.</p>	<p>The emission factor for this project electricity system was calculated for grid power plants. So, this is not applicable.</p>	<p>This criterion is not applicable because this project involves the generation of electricity using a hydro power plant where the generated electricity is delivered to the grid and does not include off-grid power plants. Therefore, the emission factor is calculated for grid power plants only.</p>
	<p>Paragraph 5 of the applied TOOL07: Tool to calculate the emission factor for an electricity system; Version 7.0</p> <p>In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.</p>	<p>This condition is not relevant, there is no part of the power system of this project located in Annex I countries.</p>	<p>Project electricity system is not located partially or totally in an Annex I country. Hence, the tool is applicable</p>
	<p>Paragraph 6 of the applied TOOL07: Tool to calculate the emission factor for an electricity system; Version 7.0</p>	<p>This condition is not relevant, this project is a hydropower project, and there is no biofuels used in this project.</p>	<p>The project is a green field hydro power project which was confirmed by Sichuan Provincial People's Government</p>

	<p>Under this tool, the value applied to the CO₂ emission factor of biofuels is zero.</p>		<p>Approval of the site for construction /15/ for the project activity, electricity sale contract /10/ and during on-site inspection. Therefore, it does not involve any biofuels. The tool is applicable</p>
	<p>Paragraph 3 of the applied TOOL24. Common practice; Version 3.1</p> <p>This methodological tool is applicable to project activities that apply the methodological tool “Tool for the demonstration and assessment of additionality”, the methodological tool “Combined tool to identify the baseline scenario and demonstrate additionality”, or baseline and monitoring methodologies that use the common practice test for the demonstration of additionality.</p>	<p>The project applies the methodological TOOL01, therefore, this tool is applicable to the proposed project.</p>	<p>The applicability criterion is met as the project activity applies the methodological tool “Tool for the demonstration and assessment of additionality.”</p>
	<p>The applied baseline and monitoring methodology and relevant tools are valid and applicable to the project activity. The project fulfils all relevant criteria of the applied methodology ‘ACM0002: Grid-connected electricity generation from renewable sources’ – Version 21.0 /B01/ and Tool to calculate the emission factor for an electricity system; (Version 7.0) /B04-3/. Hence, use of the selected methodology is appropriate for this project activity.</p>		

D.3.2 Clarification on applicability of methodology, tool and/or standardized baseline

Means of Project Verification	Not applicable since the applicability of methodology was found to be fulfilled, further clarification to the methodology was not required
Findings	Not Applicable
Conclusion	The verification team confirms that it has critically assessed each applicability condition listed in the selected methodology/tool and the relevant information contained in the PSF against these criteria.

D.3.3 Project boundary, sources and GHGs

Means of Project Verification	Document Review, Interviews
Findings	CL 03 and CAR 08 were raised and closed successfully. Please refer to appendix 4 for further details.
Conclusion	As per paragraph 22 of the applied methodology ACM0002 version 21.0 /B01/, “ <i>The spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the project power plant is connected to</i> ”.

	<p>The components of the project boundary mentioned in section B.3 of the PSF were found to be following paragraphs 22 and 23 of the applied methodology /B01/. The verification team conducted a desk review of the implemented project to confirm the appropriateness of the project boundary identified. The verification team confirmed that all GHG sources required by the methodology have been included within the project boundary. It was assessed that no emission sources related to project activity will cause any deviation from the applicability of the methodology or accuracy of the emission reductions. The project boundary is clearly depicted with the help of a line diagram in section B.3 of the PSF and duly verified by the verification team and was found appropriate.</p> <p>Hence, the project boundary includes the project site where the power plant has been installed, associated power evacuation infrastructure, energy metering points, switch yards and other civil constructs and the connected Central China Power Grid. This is in line with the applied methodology, ACM0002, version 21 /B01/.</p>
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D.3.4 Baseline scenario

Means of Project Verification	Document Review and Interviews
Findings	CAR 04 was raised and closed successfully. Please refer to Appendix 4 for further details.
Conclusion	<p>PO has appropriately identified baseline scenario in section B.4. of the PSF, applying the simplified approach of section 5.2.1 of the applied methodology ACM0002, version 21.0 /B01/.</p> <p>In accordance with paragraph 24 of ACM0002 /B01/, if the project activity is the installation of a Greenfield power plant with or without a BESS as described under paragraph 4(a) or paragraph 5(a), the baseline scenario is electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in TOOL07.</p> <p>The project activity hydropower plant involves the installation and operation of a Greenfield hydro power plant to generate and supply electricity to the CCPG which has been verified from the electricity sale contract /10/. Therefore, the baseline scenario of the project is to provide an equal amount of electricity provided by the CCPG where the proposed project is also connected.</p> <p>The combined margin emission factor of the national grid ($EF_{grid,CM,y}$) is calculated according to Tool 07 - "Tool to calculate the emission factor for an electricity system", version 07.0 /B04-3/, and will be used to calculate baseline emissions from the project activity. Data to calculate $EF_{grid,CM,y}$ is published by calculation for the combined margin is based on data from an official source publicly available. The combined margin of the electricity grid is sourced from "2019 baseline emission factor for regional power grids in China" published by Ministry of Ecology and Environment of the China /17/, which follows "Tool to calculate the emission factor for an electricity system". It is the latest available data at the time of PSF submission to GCC portal i.e., 20/05/2022, for Global Stakeholder Consultation process, hence same is considered for emission factor calculations.</p> <p>The baseline scenario applied in the PSF was compared with the requirements of the baseline described in the applied methodology and found to be consistent. Therefore, the verification team also concludes that the identified baseline scenario reasonably represents what would occur in the absence of the project activity and is found to be acceptable.</p>

D.3.5 Demonstration of additionality

Means of Project Verification	Document Review and Interviews
Findings	CL 04 and CL 05 were raised and closed successfully. Please refer to Appendix 4 for further details.
Conclusion	<p>Project Owner has described the Demonstration of additionality according to the GCC Project Standard Version 03.1 /B02-1/ and the applied methodology ACM0002, version 21 /B01/ and relevant methodological tools.</p> <p>In section B.5 of the PSF /01-b/, two components are applied for the demonstration of additionality:</p> <ul style="list-style-type: none"> - A Legal Requirement Test - Additionality Test <p><u>Legal Requirement:</u></p> <p>The project activity is a Type A project and requires undergoing a Legal Requirement Test. However, the projects as in the project activity are not mandated by law or regulations and are entirely a voluntary action. The project is additional as per paragraph 46 of GCC Project Standard V3.1 /B02-1/. Therefore, the proposed project passes the legal requirement test.</p> <p>The Legal requirement test has been confirmed in section B.5 of the PSF and verified by the assessment. It is confirmed that there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions or other legally binding mandates requiring its implementation, or requiring the implementation of a similar technology/measure that would achieve equivalent levels of GHG emission reductions.</p> <p>The verification team assessed following approvals for the project activity to confirm that the project meets the legal requirement test:</p> <ul style="list-style-type: none"> • EIA Approval as issued to the project activity /19/ • Preliminary design document, dated 12/02/2015 and approved by Ministry of Housing and Urban-Rural Development of the People’s Republic of China /4/ • Sichuan Provincial People's Government Approval of the site for construction /15/ • Preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People’s Republic of China. • Renewable energy law of the people's Republic of China /32/ <p>These approvals for the project or laws do not mention any legal binding for the implementation of the project.</p> <p>Also, local expert in the team, having as vast experience of climate change auditing and relevant guidelines for renewable projects in the host country is part of the assessment team.</p> <p>It is confirmed from local expert that the hydro power projects are not required to be implemented to meet any legal requirement in the host country /Sichuan province or CCPG grid. Thus, it is confirmed from above assessment that there are no mandatory legal requirements for project owner to establish the project activity.</p>

	<p>The verification team has also interviewed the project owner representative and it is declared/confirmed by them that they do not have any legal mandate to implement the project activity.</p> <p><u>Additionality Test:</u></p> <p>To cover this requirement from the GCC Project Standard 3.1 /B02-1/, section 6.4.8, paragraph 45 and as per the applied methodology ACM0002 Version 21.0 /B01/.</p> <p>The project activity does not fulfill the criteria of positive list as provided in CDM Tool 32: “Methodological Tool – Positive List of Technologies” /B04-6/ and hence additionality of the project activity is demonstrated through a project specific additionality test.</p> <p>For the demonstration and assessment of additionality TOOL01: “Tool for the demonstration and assessment of additionality”, Version 7.0.0 /B05/ has been applied. As per the tool, investment barrier may be used to demonstrate that a financially more viable alternative to the project activity would have led to higher emissions.</p> <p>The PO has adopted the stepwise approach for demonstrating and assessing the additionality of the project activity as follows:</p> <p><i>Step 0: Demonstration whether the proposed project activity is the first-of-its-kind</i></p> <p>The project activity is a large-scale hydro power project undertaken in China. This is not the first such project to be installed in the country and therefore project activity does not meet this criterion.</p> <p><i>Step 1: Identification of alternatives to the project activity consistent with current laws and regulations</i></p> <p><i>Sub-step 1a: Define alternatives to the project activity</i></p> <p>Alternative 1: The proposed project activity undertaken without being registered as a GCC project activity. Alternative 2: Continuation of the current situation (no project activity or other alternatives undertaken).</p> <p><i>Sub-step 1b: Consistency with mandatory laws and regulations</i></p> <p>Both the alternatives are consistent with the laws and regulations of China.</p> <p><i>Step 2: Investment analysis:</i></p> <p>In this section it is demonstrated that the project activity is not financially feasible without the revenue from the sale of ACCs. This is demonstrated in following sections as per “Investment analysis” (Version 11.0) /B06/.</p> <p>PO has considered the investment decision date of the project as 19/09/2015 which is the date when the board decided to go forward with the project /13/. The input parameters for the calculation of financial indicator have been taken from the sources available prior to investment decision date. Project owner has considered the input values from the Preliminary Design Documents /4/.</p> <p><i>Sub-step 2a: Determine appropriate analysis method</i></p> <p>As the project is selling the generated electricity, it will generate financial benefits other than carbon revenue related income. Hence, Option I is not applicable. Option</p>
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	<p>It is applicable when the alternatives have the same kind of investment, but for this project activity alternative is the supply of electricity through national grid. Hence, Option II is also not applicable.</p> <p>The PO has chosen to demonstrate investment analysis using Option III: Benchmark Analysis.</p> <p>Sub-step 2b: Option III: Apply benchmark analysis: The project activity is a renewable energy based commercial investment. The project owner has referred the host country government guidance for determination of the benchmark. It was also checked and confirmed by the local expert in the team that this reference is widely being referred and standard practice in China for renewable energy projects benchmark. According to the “Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects”/33/ issued in 2002 by State Power Corporation of China, the financial benchmark as project IRR of the electrical industry in China is regulated as 8% (post-tax) of the total investment and 10% (post-tax) in case equity IRR is chosen.</p> <p>The project owner has selected Project IRR as financial indicator for demonstration of additionality and hence, 8% benchmark chosen by the project owner which is set by the central government of China that regulates the electric power industry nationally. The benchmark is specifically applicable to the electric power industry in P.R. China, and therefore is suitable for the proposed project. The benchmark was issued in September 2002 and is valid till up to date and there is no more recent guidance to replace it. Hence, the 8% benchmark chosen for the project activity is set by the national authority of China that regulates the electric power industry nationwide. Based on assessment team’s sectoral and financial expertise, it is confirmed that this benchmark is widely applied in China and is considered conservative for renewable energy investments.</p> <p>Also, the benchmark is determined by the government taking into consideration of all the sectoral aspects and condition in the host country and thus it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark. It is also noted that these are the latest available guidelines on benchmarks in China and are widely adopted by project developers in assessing the financial feasibility of their investments in the power sector.</p> <p>Also, the assessment team has checked with the local expert in the team and have searched widely across the registered CDM hydro projects in China. It is confirmed that it is a common practice and standard to consider the benchmark set by Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects in China. The same benchmark was applied in several registered CDM and VCS renewable energy projects whose investment decisions were made in 2005, 2012, 2017 and 2018. /37/</p> <p><i>Chronology of Events:</i></p> <p>The EIA was complete on 10/01/2014 by Guangxi Taineng Engineering Consulting Co., Ltd. and approved on 11/03/2014 by the Ministry of Environmental Protection of the People’s Republic of China /19/. The preliminary design documents were completed on 08/09/2015 by China Energy Construction Group Guangxi Electric Power Design and Research Institute Co., Ltd /4/. The investment decision was made on 19/09/2015 /13/. The first civil construction contract was signed on 12/01/2016 /5a/ and the operation started on 30/05/2020 when the project started supplying to CCPG /6a/.</p> <p>Sub-step 2c: Calculation and comparison of financial indicators:</p>
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	<p>For calculation of financial indicator, all relevant costs and revenues were found to be included in the IRR sheet /03/ provided by PO. All assumptions and estimates used for input values were checked against the relevant sources. The project activity has a less favourable post tax project IRR than the benchmark, and hence the GCC project activity cannot be considered as financially attractive.</p> <p>The key data parameters used to calculate Equity IRR are tabulated below:</p>		
	Parameter	Value	Means of Verification
	Installed capacity	500.04 MW	<p>The value is sourced from preliminary design document /4/ Details on the installed capacity and number of turbines (9 turbines with 55.56 MW capacity each) were verified from Turbine purchase contracts /5b/ /5c/ The value was also cross-checked from Grid connection agreement /6a/.</p>
	Annual net supplied electricity	2,180,300 MWh	<p>The value is sourced from preliminary design document /4/ The source of the amount of energy generated is in accordance with EB48 Annex 11 /B08/ option 3 (a). The guidance allows the use of plant load factor provided while applying the project activity for project financing, or to the government while applying the project activity for implementation approval, as of preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China.</p>
	Construction Period	65 Months	<p>It is considered based on the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China, which is used for the project approval.</p>
	Operation period	30 Years	<p>It is considered based on the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China, which is used for the project approval.</p>
	Static investment	9,687,378,200 CNY	<p>The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China. The total static investment is the resultant of all the values available at the time of investment decision date of 19/05/2015</p>
Loan	60%	<p>The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and</p>	

			Urban-Rural Development of the People's Republic of China.
	Tariff	0.3762 CNY/kWh	The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China.
	VAT	17 %	VAT and additional taxes are considered based on the preliminary design document /4/ which is used for the project approval. The rates and application of the VAT and add-on taxes are checked with the local expert in the team pertaining to regulation in the host country province and it is confirmed to be correctly applied and considered in accordance with both investment decision and actual scenario.
	Education tax	4 %	The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China.
	Urban construction tax rate	7 %	The city construction surtax of 7% (of the VAT) has been verified to be in line with the preliminary design document /4/ In accordance with the Provisional Regulations of the People's Republic of China on Urban Maintenance and Construction Tax, the rate of city construction surtax shall be determined by the taxpayer's location: 7% for urban areas, 5% for county and town, and 1% for others. The project is located Qianwei County, Leshan City, Sichuan Province, China.
	Income tax rate	17 %	The income tax rates are considered in the preliminary design document /4/ and cross-checked with applicable regulation /4/ and found to be correctly considered and applied
	Depreciation period	30 Years	The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China.
	Depreciation rate	3.30 %	
	Long-term loan interest	5.15 %	The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China. Further the loan contract /13/ for the project activity is also provided by the PO. The actual loan contract also mentions the same rates as applied in the FSR and the investment analysis.

	O & M Cost	98,176,514 CNY	<p>The value is sourced from the preliminary design document /4/ which is issued by Ministry of Housing and Urban-Rural Development of the People’s Republic of China.</p> <p>The O&M cost is also verified with the actual O&M cost for the project activity. The actual O&M cost based for 2021 /44/ is CNY 81,943,015, which is lower than the input value.</p> <p>Therefore, it is concluded that the value applied for annual operating cost in the investment analysis and its underlying assumptions are considered conservative at the time of investment decision.</p>																										
<p>The input values of the parameters involved in the investment analysis have been crosschecked against each of the evidence provided by the project owner and all the values were found to be applicable/relevant at the time of the investment decision and or project activity scenario.</p> <p>The calculation of the Project Cash-flow and IRR is appropriate and in accordance with the Tool 27 /B04-5/ guidelines and the project verification team confirms that the scrap value is added back as income</p> <p>For calculation of financial indicator, all relevant costs and revenues were found to be included in the IRR sheet /03/. All assumptions and estimates used for input values were checked against the relevant sources.</p> <p>The applied post tax benchmark of 8% has been sourced from Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects and is found appropriate, which is above the post-tax project IRR of 4.82% calculated for the project. The IRR value for this project is calculated as 4.82%, which was found to be well below applicable benchmark of 8%. Since the IRR is lower than the benchmark, the Project Activity cannot be considered as financially attractive.</p> <p>Sub-step 2d: Sensitivity analysis</p> <p>As per Tool 27, version 11 /B07/, variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues should be subjected to reasonable variation. Accordingly, the PO has appropriately taken the following financial parameters for sensitive analysis:</p> <ul style="list-style-type: none"> • Total Investment • Annual O&M costs • Electricity tariff • Net electricity generation 																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Parameters</th> <th style="text-align: center;">-10% Change</th> <th style="text-align: center;">-5% Change</th> <th style="text-align: center;">+5 Change</th> <th style="text-align: center;">+10 Change</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Total static investment</td> <td style="text-align: center;">5.67%</td> <td style="text-align: center;">5.23%</td> <td style="text-align: center;">4.44%</td> <td style="text-align: center;">4.08%</td> </tr> <tr> <td style="text-align: center;">Annual O & M cost</td> <td style="text-align: center;">4.93%</td> <td style="text-align: center;">4.87%</td> <td style="text-align: center;">4.77%</td> <td style="text-align: center;">4.71%</td> </tr> <tr> <td style="text-align: center;">Annual electricity supply</td> <td style="text-align: center;">3.99%</td> <td style="text-align: center;">4.41%</td> <td style="text-align: center;">5.21%</td> <td style="text-align: center;">5.59%</td> </tr> <tr> <td style="text-align: center;">Tariff</td> <td style="text-align: center;">3.96%</td> <td style="text-align: center;">4.40%</td> <td style="text-align: center;">5.22%</td> <td style="text-align: center;">5.61%</td> </tr> </tbody> </table>					Parameters	-10% Change	-5% Change	+5 Change	+10 Change	Total static investment	5.67%	5.23%	4.44%	4.08%	Annual O & M cost	4.93%	4.87%	4.77%	4.71%	Annual electricity supply	3.99%	4.41%	5.21%	5.59%	Tariff	3.96%	4.40%	5.22%	5.61%
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	<p>In conclusion, the project IRR (after tax) will not reach the benchmark of 8% within the reasonable fluctuation range of +/-10% of the key financial parameters. The project verification team has cross-checked all the input values and calculations which are found to be correct and in accordance with Tool 27, version 11 /B06/.</p> <p>Moreover, the threshold values of the parameters for which the IRR shall cross the benchmark is given below:</p>																
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	<p>Step 3: Barrier analysis PO has not applied barrier analysis.</p> <p>Step 4: Common practice analysis Common practice analysis for the project was conducted using CDM Tool 24, version 3.1) /B04-4/</p>																

	<p>Sub-step 4a: The proposed project activity(ies) applies measure(s) that are listed in the definitions section above</p> <p>The project is a hydro power generation project and adopts type (b) measure listed in the Methodological tool am-tool-24-v03.1 Common practice /B04-4/. The applicable geographical area is Sichuan Province of China.</p> <p>Sub-step 4a-1: calculate applicable capacity or output range as +/-50% of the total design capacity or output of the proposed project activity.</p> <p>The applicable capacity calculated as +/-50% of total design capacity of proposed project activity was 250 to 750 MW, which was found to be in line with Tool:24 and acceptable to the project verification team.</p> <p>Sub-step 4a-2: identify similar projects (both CDM and non-CDM) which fulfil all of the following conditions:</p> <ul style="list-style-type: none"> (a) The projects are located in the applicable geographical area These fall in the applicable geographical location i.e., Sichuan Province in China. It has been demonstrated by the project owner and verified by the assessment team that the Provinces in China are very large in terms of geographical area, population size and natural resource availability. The Investment and regulatory environment vary significantly between provinces in China. Further, the Chinese grid is also divided into 6 different regional grids having different grid regulation. Also, each province does have a separate regulatory policy as well as project approval/EIA approval process. This fact is evident from the current project activity, where EIA and project approval are processed through regional approval bodies of the Sichuan Province. Since it is substantiated that all provinces, grids and zones have different investment climate, the geographical area of Sichuan province is accepted by the assessment team for common practice analysis. (b) The projects apply the same measure as the proposed project activity These apply the same measure i.e., renewable energy. (c) The projects use the same energy source/fuel and feedstock as the proposed project activity, if a technology switch measure is implemented by the proposed project activity These use the same source of input energy i.e., hydropower. (d) The plants in which the projects are implemented produce goods or services with comparable quality, properties and applications areas (e.g. clinker) as the proposed project plant These produce the same goods/services i.e., electricity supplied to the connected grid. (e) The capacity or output of the projects is within the applicable capacity or output range calculated in Step 1 The capacity of these projects is in the range as defined in Step 1 i.e., 250 MW – 750 MW. (f) The projects started commercial operation before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of proposed project activity, whichever is earlier for the proposed project activity.
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	<p>The project started commercial operations before the start date of proposed project activity i.e., 12/01/2016 when the civil construction contract was signed /5a/. It was the first major financial commitment towards implementation of the project activity by the PO and is appropriately considered.</p> <p>There are no projects which satisfy all of the above criteria. The selection of projects is based on publicly available information from on hydropower projects in Sichuan province /14/. It has been concluded that the project owner has appropriately considered all the available projects as per the applicable selection criteria defined for the common practice analysis of current project.</p> <p>Sub-step 4a-3: within the projects identified in Step 2, identify those that are neither registered CDM project activities, project activities submitted for registration, nor project activities undergoing validation. Note their number N_{all}.</p> <p>There are no projects which are implemented or under operation at time of the start date considered.</p> <p>Therefore, $N_{all} = 0$.</p> <p>Sub-step 4a-4: within similar projects identified in Step 3, identify those that apply technologies that are different to the technology applied in the proposed project activity. Note their number N_{diff}.</p> <p>None of the projects identified above apply a different technology than the proposed project activity. Hence, $N_{diff} = 0$.</p> <p>Sub-step 4a-5: calculate factor $F=1-N_{diff}/N_{all}$ representing the share of similar projects (penetration rate of the measure/technology) using a measure/technology similar to the measure/technology used in the proposed project activity that deliver the same output or capacity as the proposed project activity.</p> <p>The factor of the proposed project activity is calculated as follows:</p> $F = 1 - \frac{N_{diff}}{N_{all}} = 1 - \frac{0}{0} = 1$ $N_{all} - N_{diff} = 0$ <p>As per am-tool-24-v03.1, the proposed project activity is a “common practice” within a sector in the applicable geographical area if the factor F is greater than 0.2 and $N_{all} - N_{diff}$ is greater than 3. For the proposed project, F is not greater than 0.2 and $N_{all} - N_{diff}$ is not greater than 3, therefore, the project is not a common practice in Sichuan Province of China.</p> <p>The project verification team thus concludes that the project activity is not financially feasible without ACC revenue. Hence, the project is additional.</p>
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D.3.6 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	Document Review and Interviews
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Findings	CL 03 was raised and closed successfully. Please refer to Appendix 4 for further details										
Conclusion	<p>The equations and choices provided in the applied methodology, ACM0002, version 21.0/B01/ are correctly quoted in the PSF /01-b/.</p> <p><u>Baseline emissions</u> Baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows:</p> $BE_y = EG_{PJ, y} \times EF_{grid, CM, y} \quad \text{Equation (11) of ACM0002}$ <p>Where:</p> <p>BE_y = Baseline emissions in year y (tCO₂e/yr). EG_{PJ, y} = Electricity supplied by the project activity to the grid (MWh/yr). EF_{grid, C}_{M, y} = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the Tool to calculate the emission factor for an electricity system (tCO₂e/MWh).</p> <p>As per methodology, the combined margin CO₂ emission factor of the grid is calculated by using 2019 Baseline Emission Factors for Regional Power Grids in China, published by China DNA /17/ which is in accordance with the Tool 7 version 07.0 /B04-3/. According to the Ministry of Ecology and Environment of the People's Republic of China website, this is the latest data available and was published on 29/12/2020. This complies with the requirement stated in paragraph 9 of GCC Clarification no. 3 (version 1.0) /B02-7/, which states that "if the project owner applies options 8(c) to 8(e) above, the latest available emission factor shall not be older than 3 years, at the time of submission of the project documentation for starting Global Stakeholder Consultation (GSC)".</p> <p>As per the 2019 Baseline Emission Factors for Regional Power Grids in China the values for Operating Margin (OM), Build Margin (BM) and Combined Margin (CM) emission factors are stated as follows:</p> <table border="1" data-bbox="504 1541 1495 1897"> <thead> <tr> <th>Parameter</th> <th>Description</th> <th>Verified Value</th> <th>Approach</th> <th>Verified Source</th> </tr> </thead> <tbody> <tr> <td>EF_{grid, OM, y}</td> <td>Operating margin CO₂ emission factor in year y (tCO₂e/MWh)</td> <td>0.8587</td> <td>Paragraph 42(a) of Tool 07 and Option A of Simple Operating Margin of Section 6.4.1 of Tool 07 version 07.0 /B04/.</td> <td>2019 Baseline Emission Factors for Regional Power Grids in China, published by China DNA /B04-3/</td> </tr> </tbody> </table>	Parameter	Description	Verified Value	Approach	Verified Source	EF _{grid, OM, y}	Operating margin CO ₂ emission factor in year y (tCO ₂ e/MWh)	0.8587	Paragraph 42(a) of Tool 07 and Option A of Simple Operating Margin of Section 6.4.1 of Tool 07 version 07.0 /B04/.	2019 Baseline Emission Factors for Regional Power Grids in China, published by China DNA /B04-3/
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EF _{grid, OM, y}	Operating margin CO ₂ emission factor in year y (tCO ₂ e/MWh)	0.8587	Paragraph 42(a) of Tool 07 and Option A of Simple Operating Margin of Section 6.4.1 of Tool 07 version 07.0 /B04/.	2019 Baseline Emission Factors for Regional Power Grids in China, published by China DNA /B04-3/							

	$EF_{grid,BM,y}$	Build margin CO ₂ emission factor in year y	0.2854	Paragraph 75(a) of Tool 07 version 07.0 /B04/.	2019 Baseline Emission Factors for Regional Power Grids in China, published by China DNA /B04-3/
	$EF_{grid,CM,y}$	Combined margin CO ₂ emission factor for the project electricity system in year y (tCO ₂ e/MWh)	0.57205	As per paragraph 81(a) and paragraph 85 and 86 under Section 6.6.1 of Tool 07 version 07.0 /B04/.	This value is calculated using the published values for OM and BM, following approach in paragraph 81(a) and paragraph 85 and 86 (b) under Section 6.6.1 of Tool 07 version 07.0 /B04-3/

The parameters stated above are fixed ex-ante and are provided under section B.6.2 of the PSF.

If the project activity is the installation of a Greenfield power plant, the according to paragraph 49 of ACM0002,

$$EG_{PJ,y} = EG_{facility,y} \quad \text{Equation (12) of ACM0002}$$

Where:

$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr).

Project Emissions

As per the applied methodology /B01/, project emissions shall be accounted by using the following equation:

$$PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y} + PE_{BESS,y} \quad \text{Equation (1) of ACM0002}$$

Where:

PE_y = Project emissions in year y (tCO₂e/yr).
 $PE_{FF,y}$ = Project emissions from fossil fuel consumption in year y (tCO₂e/yr).
 $PE_{GP,y}$ = Project emissions from the operation of dry, flash steam or binary geothermal power plants in year y (tCO₂e/yr).
 $PE_{HP,y}$ = Project emissions from water reservoirs of hydropower plants in year y (tCO₂e/yr).
 $PE_{BESS,y}$ = Project emissions from charging of a BESS using electricity from the grid or from fossil fuel electricity generators (t CO₂e/yr)

	<p>Since the project activity is renewable hydro power project, emissions due to the use of fossil fuels for the backup generator ($PE_{FF,y}$) can be neglected in accordance with paragraph 37 of the applied methodology /B01/ and Project emissions from the operation of dry, flash steam or binary geothermal power plants ($PE_{GP,y}$) are not applicable.</p> <p>The project activity does not involve BESS and therefore, Project emissions from charging of a BESS using electricity from the grid or from fossil fuel electricity generators ($PE_{BESS,y}$) is not applicable.</p> <p>Project emissions from water reservoirs of hydropower plants is calculated in accordance with section 5.4.3 of the applied methodology /B01/.</p> <p>The power density (PD) of the project activity is calculated as follows:</p> $PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}} \quad \text{Equation (7) of ACM0002}$ <p>Where:</p> <p>PD = Power density of the project activity (W/m²).</p> <p>Cap_{PJ} = Installed capacity of the hydropower plant after the implementation of the project activity (W).</p> <p>Cap_L = Installed capacity of the hydropower plant before the implementation of the project activity (W). For new hydropower plants, this value is zero.</p> <p>A_{PJ} = Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m²).</p> <p>A_{BL} = Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). For new reservoirs, this value is zero.</p> <p>As the project built a new reservoir, Cap_{BL} and A_{BL} are zero. The area of the reservoir built for the project activity is sourced from project design document /4/</p> $PD = \frac{500,040,000 - 0}{159,900,000 - 0} = 31.27 \text{ W/m}^2$ <p>The power density of the proposed project is 31.27 W/m². According to paragraph 42 (c) of ACM0002 (version 21.0) /B01/, If the power density of the project activity is greater than 10 W/m², then $PE_{HP,y} = 0$</p> <p><u>Leakage</u></p> <p>As per section 5.6 paragraph 61 of the of the applied methodology /B01/ no other leakage emissions are considered. Since, the project activity is a hydro power project, the, on-site consumption of fossil fuel is negligible, hence, there is no leakage emission from the project activity.</p> <p><u>Emission Reductions</u></p> <p>The emission reductions of the Project Activity are calculated using the equation (17) of the applied methodology ACM0002 (Version 21.0) /B01/.</p>
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	$ER_y = BE_y - PE_y$ <p style="text-align: right;">Equation (17) of ACM0002</p>												
	<p>Where:</p> <p> ER_y = Emission reductions in year y (tCO₂e/yr). BE_y = Baseline emission in year y (tCO₂e/yr). PE_y = Project emission in year y (tCO₂e/yr). </p> <p>Since $PE_y = 0$, $ER_y = BE_y$.</p> <p>Data and parameters fixed ex-ante:</p> <p>In addition to the OM, BM, and CM values stated above, other ex-ante parameters provided under section B.6.2 of the PSF /01-b/ are found to be appropriate and in line with the applied methodology ACM0002 (version 21.0) /B02/. Ex-ante parameters of the project activity would be as follows:</p>												
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Description</th> <th>Verified Value</th> <th>Verified Source</th> </tr> </thead> <tbody> <tr> <td>A_{BL}</td> <td>Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²).</td> <td style="text-align: center;">0</td> <td>According to ACM0002 (version 21.0) /B01/, this value will be 0 when the project activity results in the formation of new reservoir.</td> </tr> <tr> <td>Cap_{BL}</td> <td>Installed capacity of the hydro power plant before the implementation of the project activity. For new hydro power plants, this value is zero.</td> <td style="text-align: center;">0</td> <td> <ul style="list-style-type: none"> - ACM0002 (version 21.0) /B01/ - There was no power plant in the baseline and therefore this value is 0. </td> </tr> </tbody> </table>	Parameter	Description	Verified Value	Verified Source	A_{BL}	Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m ²).	0	According to ACM0002 (version 21.0) /B01/, this value will be 0 when the project activity results in the formation of new reservoir.	Cap_{BL}	Installed capacity of the hydro power plant before the implementation of the project activity. For new hydro power plants, this value is zero.	0	<ul style="list-style-type: none"> - ACM0002 (version 21.0) /B01/ - There was no power plant in the baseline and therefore this value is 0.
Parameter	Description	Verified Value	Verified Source										
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	<p>The parameters and equations presented in the PSF /01-b/ and ER spreadsheet /02-b/ have been compared with the information and requirements presented in the methodology /B01/. Project verification team based on the review of PSF /01-b/ and the ER spread sheet /02-b/ and other supporting documents, confirms that the formula are correctly presented for the determination of emission reductions and the values of the input parameters used are accurate, appropriate, and consistent.</p>												

D.3.7 Monitoring plan

Means of Project Verification	Document Review and Interviews
Findings	CAR 09 was raised and closed successfully. Please refer to Appendix 4 for further details.

<p>Conclusion</p>	<p>The monitoring plan presented in the PSF /01-b/ complies with the requirements of the applied monitoring methodology /B01/. The verification team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.</p> <p>The verification team through a document review and interviews with the relevant stakeholders has reviewed the procedures. The information provided has allowed the verification team to confirm that the proposed monitoring plan is feasible within the project design.</p> <p>The parameters that are to be monitored ex-post are:</p>							
	<table border="1"> <thead> <tr> <th data-bbox="504 645 794 703">Parameter</th> <th data-bbox="794 645 948 703">Unit</th> <th data-bbox="948 645 1118 703">Frequency</th> <th data-bbox="1118 645 1489 703">Assessment</th> </tr> </thead> <tbody> <tr> <td data-bbox="504 703 794 2018"> <p>$EG_{\text{facility},y}$</p> <p>(Quantity of electricity generated and supplied by the project power plant to the grid in year y.)</p> </td> <td data-bbox="794 703 948 2018"> <p>MWh</p> </td> <td data-bbox="948 703 1118 2018"> <p>Monthly</p> </td> <td data-bbox="1118 703 1489 2018"> <p>The parameter is monitored continuously and recorded monthly through meter reading taken by representative of PO.</p> <p>The meters are bi-directional tri-vector energy meters of 0.2s accuracy class. Net Electricity generated and delivered to the grid by the power plant in year y Calculated based on the electricity delivered to the grid by the project ($EG_{\text{out},y}$) and the electricity consumed by the project which is imported from the grid ($EG_{\text{in},y}$). $EG_{\text{facility},y} = EG_{\text{out},y} - EG_{\text{in},y}$.</p> <p>Two energy meters (one main and one backup) are installed to measure the amount of electricity supplied and consumed by the proposed project on each line (269 and 272). In case of the failure of the main meter, backup meter readings will be used for emission reductions calculations.</p> <p>The values of meter readings can be crosschecked with monthly sales receipt provided by the grid company. The project verification team has checked sample receipts /34/ to confirm the same.</p> <p>Technical details and serial numbers for meters were checked during site visit and found consistent with the</p> </td> </tr> </tbody> </table>	Parameter	Unit	Frequency	Assessment	<p>$EG_{\text{facility},y}$</p> <p>(Quantity of electricity generated and supplied by the project power plant to the grid in year y.)</p>	<p>MWh</p>	<p>Monthly</p>
Parameter	Unit	Frequency	Assessment					
<p>$EG_{\text{facility},y}$</p> <p>(Quantity of electricity generated and supplied by the project power plant to the grid in year y.)</p>	<p>MWh</p>	<p>Monthly</p>	<p>The parameter is monitored continuously and recorded monthly through meter reading taken by representative of PO.</p> <p>The meters are bi-directional tri-vector energy meters of 0.2s accuracy class. Net Electricity generated and delivered to the grid by the power plant in year y Calculated based on the electricity delivered to the grid by the project ($EG_{\text{out},y}$) and the electricity consumed by the project which is imported from the grid ($EG_{\text{in},y}$). $EG_{\text{facility},y} = EG_{\text{out},y} - EG_{\text{in},y}$.</p> <p>Two energy meters (one main and one backup) are installed to measure the amount of electricity supplied and consumed by the proposed project on each line (269 and 272). In case of the failure of the main meter, backup meter readings will be used for emission reductions calculations.</p> <p>The values of meter readings can be crosschecked with monthly sales receipt provided by the grid company. The project verification team has checked sample receipts /34/ to confirm the same.</p> <p>Technical details and serial numbers for meters were checked during site visit and found consistent with the</p>					

				<p>information provided in the PSF.</p> <p>The calibration of meters, including the frequency of calibration will be done in accordance with national standards. The calibration frequency is once in six years, based on para 6.6 of “Electrical Meters for Measuring Alternating-current Electrical Energy” (JJG 596-2012) /35/ for 0.2S and 0.5S class active energy meters.</p> <p>Electronic data will be archived within the crediting period and 2 years after the end of the crediting period or till the last issuance of ACCs for the project activity whichever occurs later.</p>
	<p>A_{PJ} (Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full.)</p>	<p>m^2</p>	<p>Yearly</p>	<p>The value is monitored for the calculation of project emissions from water reservoir. The water level will be monitored continuously, and the maximum value of an operational year will be selected and applied in the water level-surface curve to determine the corresponding water surface area which is used for the calculation of the power density of the project.</p>
	<p>Cap_{PJ} (Installed capacity of the hydropower plant after the implementation of the project activity.)</p>	<p>W</p>	<p>Once at the beginning of each crediting period.</p>	<p>The value is determined once at the beginning of crediting period for the calculation of project emissions from water reservoir.</p> <p>The installed capacity of the project was verified from the technical specifications of the installed generators /8/ and during on-site visit.</p>
	<p>The following parameters will be monitored for environmental/social impacts that are identified to be positive in nature</p>			
	<p>CO₂ emission</p>	<p>tCO_{2e}</p>	<p>Continuously measured and</p>	<p>This parameter will have a positive impact on the environment by means of reduction in the CO₂ emissions. Reduction of CO₂</p>

			monthly recorded	emissions due to implementation of project activity that would otherwise be emitted by the grid connected power plants will be monitored. The monitoring of this parameter will be done in each verification based on calculation from the continuously monitored electricity generation. The calculation procedures for the reduction in CO ₂ emissions are correctly defined in the PSF. The parameter is being monitored to assess to contribution SDG goal -13 Climate Change and also the positive environmental impact. Adequate details for monitoring/reporting/recording are defined in the PSF. The CO ₂ emission reduction is validated from the ER calculation sheet /02/ and found appropriate.
	Employment	-	Monthly	The project activity has claimed creation of on-site long-term jobs. At the time of project verification project activity is expected to provide 125 numbers of long-term jobs at site. The number of locals employed by the project will be monitored through checking payroll records or signed contracts between the project owner and the employees. According to the Labor Law of the People's Republic of China /38/, employers must pay social pension insurance for their employees. Therefore, the number of employees employed by the enterprise can be determined by the number of insured persons. This information is publicly on https://www.tianyancha.com/company/950523305
	Job related Training	-	Monthly	The project owner has claimed under S+ section that regular job-related training

				<p>will be provided to the employees for their skill development and safety. It is confirmed that the project activity does regular training to its employees for skill development and there is a system in place to monitor the same. This parameter will be continuously monitored by means of training records and adequate details for monitoring/reporting/recording are defined in the PSF.</p>
	<p>The following parameters will be monitored for environmental/social impacts that are identified to be negative in nature (regardless of being harmful or harmless)</p>			
	Noise pollution (EA09)	dB	Yearly	<p>The operation of turbines and transformers can result in noise pollution. The levels of noise will be monitored constantly to demonstrate regulatory compliance to emission standard of environment noise for boundary of construction site (GB12523-2011) /39/ and Emission standard for industrial enterprises noise at boundary (GB12348-2008) /40/.</p> <p>PO will assign a local environmental monitoring agency to carry out noise detection once a year.</p> <p>The project owner shall keep records for the monitoring parameter and can be checked at the time of ER verification stage to ensure the compliance.</p>
Solid waste Pollution from Hazardous wastes (EL02)	Tonnes	Constantly	<p>Hazardous waste will be properly collected, temporarily stored in the specific storage facility at the project site and then transferred to a qualified entity for treatment at periodic intervals.</p> <p>PO has provided waste oil storage and delivery records for the year 2021 /41/ which are checked by the verification team.</p>	

				The project owner shall keep records for the monitoring parameter and can be checked at the time of ER verification stage to ensure the compliance to Regulation of Industry Solid waste Reposition and Disposal site Pollution Control (GB18599-2001) /42/.
	Solid waste Pollution from end-of-life products/ equipment (EL06)	Tonnes	Constantly	Any solid waste generated by End-of-life equipment collected and stored at designated locations, and regularly transported to qualified waste treatment plants for treatment. Project owner shall maintain regulatory compliance with respect to the same. The project owner shall keep records for the monitoring parameter and can be checked at the time of ER verification stage to ensure the compliance.
	Generation of wastewater (EW03)	-	Monthly	The wastewater during the operation period mainly from domestic sewage from the working staff. Domestic sewage generated by the project activity is sent to the sewage treatment plant for treatment through integrated sewage facilities. The sewage treatment plant is a common facility. The project owner shall keep records for the monitoring parameter (Quantity of wastewater) and can be checked at the time of ER verification stage to ensure the compliance to Discharge standard of pollutants for municipal wastewater treatment plant (GB 18918-2002) /43/.
	Accidents at site	-	Constantly	The PO has claimed that the staff will be provided with regular Health and safety training about accident hazards and risk related.

				<p>Training material /28/ along with training pictures /24/ have been provided by the project owner and is deemed acceptable to the project verification team</p> <p>The monitoring parameter will be continuously monitored through accident records maintained by the PO. The project owner shall keep records for the monitoring parameter and can be checked at the time of ER verification stage to ensure the compliance.</p>
	Protecting/enhancing species diversity (ENR03)	-	<p>Fish population dynamics monitoring is carried out from April to July and October to November every year, for about 20 days per month.</p>	<p>Dams may stop fish from moving along their natural paths between feeding grounds and spawning grounds, interrupting their life cycle and reproduction. PO has incorporated fish breeding stations at the project site which was confirmed during the on-site visit.</p> <p>The project owner shall keep records for the monitoring parameter (Fish Population dynamics) and can be checked at the time of ER verification stage to ensure the compliance.</p>
<p>In summary, the parameters to be monitored have been presented correctly according to requirements and are considered in accordance with the applied methodology /B01/ and the applicable GCC requirements /B02/. This is in conformance with the requirements of GCC Verification Standard (version 3.1) /B02-2/.</p>				

D.4. Start date, crediting period and duration

Means of Project Verification	Document Review and Interviews
Findings	CL 06 was raised and closed successfully. Please refer to Appendix 4 for further details.
Conclusion	<p>The start date of the project is 30/05/2020, which is the commissioning of the project activity and the date when the project started transmitting electricity to the grid. The same has been duly verified against the grid connected trial operation report /6a/ which and found to be acceptable by the verification team.</p> <p>Crediting period has been chosen as fixed 10 years from 30/05/2020 to 29/05/2030. The start date of the crediting period is stated as 30/05/2020, which is appropriate as per §40(b) of the Project Standard version 03.1 /B01-1/.</p>

	<p>The expected operational lifetime of the project activity is 30 years which is based on the project design document /4/.</p> <p>The project verification team therefore concludes that the duration of the proposed project activity is in conformance with the requirements of §38, §39 and §40 of GCC Project Standard, version 03.1 /B01-1/.</p>
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D.5. Environmental impacts

Means of Project Verification	Document Review and Interviews
Findings	-
Conclusion	<p>The EIA was conducted by Guangxi Taineng Engineering Consulting Co., Ltd. in 2017 /19/. The EIA report dated January 2014 has been evaluated and approved by Ministry of Ecological Environment of the People's Republic of China and the approval was issued on 11/03/2014 /19/.</p> <p>The EIA report identifies all possible environmental impacts by the project activity and their proper mitigation measures. The EIA report identifies and analyses the following impacts:</p> <ol style="list-style-type: none"> 1. Air pollution: 2. Water pollution 3. Noise pollution 4. Solid waste pollution including hazardous waste. 5. Impacts on ecological environment (mainly fishes). <p>These impacts are adequately described in section D.1 of the PSF /01-b/ along with the mitigation measures in line with the EIA report /19/, which is acceptable to the project verification team.</p> <p>The report /19/ does not identify any impacts on the surrounding environment of habitation as project location is not under any such identified forest or protected sanctuary The report /19/ also summarises the mitigation measures for the identified impacts which have been incorporated by the PO. Assessment team feels the EIA analysis covers all possible impacts from the project and the same has been appropriately considered by the project owner in PSF analysis.</p>

D.6. Local stakeholder consultation

Means of Project Verification	Document Review and Interviews
Findings	CL 08 and CAR 10 were raised and closed successfully. Please refer to appendix 4 for further details.
Conclusion	<p>Local stakeholder consultation (LSC) was performed by Guangxi Taineng Engineering Consulting Co., Ltd. on 27/01/2013, during the EIA process according to national regulation, which was published by The Ministry of Environmental Protection of P.R. China., "Interim Measures for Public Participation in Environmental Impact Assessment" (Huanfa [2006] No.28) /44/. The verification team confirms that the local stakeholder consultation was performed by the project owner before the submission of the project for global stakeholder consultation.</p> <p>The objective of the stakeholder consultation was to identify the concerns, comments raised and the impacts of project activity on local communities. The analysis has been done to identify the impact/influences of different stakeholders due to the</p>

	<p>project activity. The stakeholder consultation report as part of EIA were submitted to the assessment team including comments received during the Local stakeholder consultation.</p> <p>The LSC process was carried out in a combination of a questionnaire survey and media information disclosure. The 1st announcement was published on the website of Leshan City Government on 22/07/2010 and the subsequent announcements were made on Leshan News Network on 10/01/2013, and on Leshan Daily on 11/01/2013.</p> <p>From January 28th to January 30th, 2013, the project owner distributed public participation questionnaires in the affected areas, conducted surveys and interviews with government agencies and social groups within the scope of influence, and conducted oral random interviews with some members.</p> <p>PO has submitted the copy of the public announcements, Minutes of Meeting (MoM) and copy of questionnaires /16/ to VVB for project verification. It is found that no adverse comment was received for the project activity.</p> <p>Gist of feedback received from the local stakeholders are also provided in the PSF and EIA report. All the comments have been taken care by the project owner and apprehensions were appropriately answered and justified in the PSF. Since, the consultation is done through the EIA process, which is a legal requirement, all the feedback received, and response and mitigation measures are part of the EIA approval process. Based on the satisfaction of the consultation and mitigation, the project activity EIA was successfully approved by the local regulatory authority.</p> <p>Thus, verification team concludes that appropriate local stakeholder consultation was conducted by the project owner.</p> <p>VVB further verified the same through interviews with the stakeholders during on-site audit and confirmed that there was no adverse comment about the project and this project will lead to employment generation and better environmental conditions. Project verification team considers the local stakeholder consultation carried out adequately and can confirm that the process is in-line with the requirements of GCC.</p>
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D.7. Approval and Authorization- Host Country Clearance

Means of Project Verification	Document Review and Interviews
Findings	CAR 06 was raised and closed successfully. FAR 01 has been raised in this respect. Please refer to Appendix 4 for further details.
Conclusion	As per the GCC requirements as well the email thread with GCC provided by the PO, there is no need for the PO to provide Host Country Attestation during the project verification. However, since the crediting period falls between 30/05/2020 to 29/05/2030 (as per the PSF, Section C.3.2.), this will have to be checked during the first or subsequent ER Verification of the project (for the period beyond 2020). FAR 01 has been raised in this reference.

D.8. Project Owner- Identification and communication

Means of Project Verification	Document Review and Interviews
Findings	CL 02 was raised and closed successfully. Please refer to appendix 4 for further details.
Conclusion	

	Organisation name	Guizhou Search CO2 Environmental Technology Service Co., Ltd.
	Country	P.R. China
	Address	Room B414, Auxiliary Romm of Standard Factory Building, Jinyang Science and Technology Industrial Park, National Hi-Tech Industrial Development Zone, Guiyang City, Guizhou Province, P.R. China.
	Telephone	+86-13984899994
	Fax	/
	E-mail	business@quantacarbon.com
	Website	/
	Contact person	WANG Can
	<p>This is in compliance with the § 10-i of the Project Standard Version 3.1 /B02-1/. The information and contact details of the representation of the project owner and project owners themselves has been appropriately incorporated in Appendix 1 of the PSF which was checked and verified by the verification team from Authorization letter /29/ signed by the project owners. All information was consistent between these documents.</p> <p>The project verification team has reviewed the Business License /11/ of Sichuan Minjiang Port and Channel Development Co., Ltd. having date of incorporation as 02/04/2011 and validated the legal ownership of the project.</p> <p>The project verification team thus confirms the legal ownership of the project activity. The project verification team has checked the LOA /29/ submitted by the client and confirms Guizhou Search CO2 Environmental Technology Service Co., Ltd.is the authorized representative of proposed project activity developed by Sichuan Minjiang Port and Channel Development Co., Ltd.</p>	

D.9. Global stakeholder consultation

Means of Project Verification	Document Review and Interviews
Findings	-
Conclusion	<p>The PSF was published for global stakeholder consultation from 27/09/2022 to 11/10/2022 (https://www.globalcarboncouncil.com/global-stakeholders-consultation/). During the above period no Global stakeholders' comments were received.</p> <p>The verification team therefore concludes that the process for global stakeholder consultation was conducted in accordance with the requirements of paragraphs 25 and 26 of the GCC Project Standard (version 3.1) /B02-1/.</p>

D.10. Environmental Safeguards (E+)

Means of Project Verification	Document Review and Interviews			
Findings	CL 07 was raised and closed successfully. Please refer to Appendix 4 for further details.			
Conclusion	Impact of Project Activity on Environmental Safeguards	Project Owner's Conclusion	Score	Assessment

	CO ₂ emissions (EA03)	The electricity generation monitoring will be conducted by using electricity meters and the emission reduction can be calculated based on that.	+1	<p>The project activity being renewable power generation that avoids CO₂ emissions that would have occurred in baseline scenario due to the electricity generation in thermal power plants. The impact is being monitored through parameter 'CO₂ emission' and is verified under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.</p>
	Noise Pollution (EA09)	The noise produced by the turbine under normal working conditions is very small, and it is hardly audible outside the factory building.	+1	<p>This is covered to monitor impacts from noise generated by the project activity. The impacts are being monitored through parameters 'Noise Pollution' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.</p>
	Solid waste Pollution from Hazardous wastes (EL02)	The local environmental protection authority is responsible for supervising the collection and transfer of waste oil. The transformer oil is highly corrosive and needs to be replaced regularly to ensure that the insulation is up to standard, so it is	+1	<p>This is covered to monitor impacts from waste mineral oil generated by the project activity. The impacts are being monitored through parameters 'Hazardous waste' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the</p>

		regarded as solid waste from hazardous wastes.		scoring has found acceptable by the team.
	Solid waste Pollution from end-of-life products/ equipment (EL06)	The local environmental protection authority is responsible for supervising the collection and transfer of solid waste.	+1	<p>This is covered to monitor impacts from end-of-life equipment generated by the project activity. The impacts are being monitored through parameter 'Solid waste pollution from end-of-life equipment' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.</p>
	Generation of wastewater (EW03)	Thanks to the installation of wastewater treatment systems and the good practice, the wastewater did not do harm to the environment.	+1	<p>This is covered to monitor impacts from condensed water generated by the project activity. The impacts are being monitored through parameters 'Generation of wastewater' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.</p>
	Protecting/ enhancing species diversity (ENR03)	The impact on fish features temporary and the impact will disappear after the project is completed. In addition, measures will be adopted to protect fish life. During the operation period, 1) fish population dynamics and changes in	+1	<p>This is covered to monitor impacts on various fish species due to the project activity. The impacts are being monitored through parameters 'Protecting/ enhancing species diversity' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the</p>

		community composition2) fish spawning grounds. 3) effectiveness of stock enhancement and 4) fish passage will be closely monitored.		scoring has found acceptable by the team.
	Replacing fossil fuels with renewable sources of energy (ENR07)	The project is expected to supply an average of 1,952,342 MWh renewable electricity to CCPG annually.	+1	<p>The impact is self-evidentiary as project being a renewable energy power plant and baseline is fossil fuel dominated grid.</p> <p>The impact is being monitored through parameter 'EG_{facility,y}' and discussed under section D.3.7 of this report.</p> <p>An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.</p>
<p>Verification team confirms that the project at a minimum, has conducted assessment and reporting of the potential aspects which are identified for each project type as per appendix 1 of the GCC Environment and Social Safeguards Standard (version 3.0) /B01-4/ and the Project activity will not cause any net harm to the environment and net score for project activity comes out to be +7, hence, is eligible to achieve additional E+ certifications. The detailed matrix has been included in appendix 5 of the report.</p> <p>The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to environment.</p>				

D.11. Social Safeguards (S+)

Means of Project Verification	Document Review and Interviews			
Findings	CL 07 was raised and closed successfully. Please refer to Appendix 4 for further details.			
Conclusion	Impact of Project Activity on Social Safeguards	Project Owner's Conclusion	Score	Assessment
	Long- term jobs (> 1 year) created/ lost (SJ01)	Employment has been recorded. Labor law protects the employees. In	+1	The impacts being monitored throughout crediting period by parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' and is verified under

		addition, there are signed contracts between the project owner and the employees.		section D.3.7 of this report. The employment was verified during the audit and by interviews and it was accepted by the Project verification team that appropriate monitoring plan has been implemented.
	Reducing / increasing accidents/incidents/fatality (SHS03)	Conduct safety knowledge training for all employees every month to reduce the occurrence of safety accidents.	+1	The impact is being monitored throughout the crediting period by parameter 'Accidents occurred at project site' and is verified under section D.3.7 of the report. The project owner shall provide the job-related Health and safety trainings to its employees on regular interval, and the number of accidents occurred can be verified at the time on emission reduction verification
	Job related training (SE04)	Technicians would equip themselves with relevant domain knowledge and by attending training sessions, technicians can keep current on industry developments such as safety and quality requirements	+1	The impact is being monitored throughout the crediting period by parameter 'Job-related Training' and is verified under section D.3.7 of the report. The project owner shall provide the job-related Health and safety trainings to its employees on regular interval, and the number of trainings can be verified at the time on emission reduction verification.
	Women's empowerment (SW06) (Human rights)	Anyone can report gender discrimination or illegal employment to the labor inspection authority	0	The employment situation of personnel will be reported to the local labor and social security authority every month to ensure that there is no gender discrimination. However, PO will not score this parameter.
	Exploitation of Child labour (Human rights) (SW08)	By checking the date of birth of the ID card, it is confirmed that all employees are over the legal	0	According to Promulgation of the State Council of the China Prohibiting the Use of Child Labor, employment of children under the age of 16 is prohibited in China.

	working age, which is 18 years old.		<p>The employment /25/ was verified during the audit and by interviews and it was confirmed by checking the age of these employees that no child has been hired for the project activity. It was accepted by the verification team that an appropriate monitoring plan is going to be implemented.</p> <p>However, PO has considered zero score for this parameter and, it is verified as harmless.</p>
<p>Verification team confirms that the project at a minimum, has conducted assessment and reporting of the potential aspects which are identified for each project type as per appendix 1 of the GCC Environment and Social Safeguards Standard (version 3.0) /B01-4/ and the Project activity will not cause any net harm to the society and net score for project activity comes out to be +3, hence, is eligible to achieve additional S+ certifications. The detailed matrix has been included in appendix 6 of the report.</p> <p>The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to society.</p>			

D.12. Sustainable development Goals (SDG+)

Means of Project Verification	Document Review and Interviews			
Findings	CL 07 was raised and closed successfully. Please refer to Appendix 4 for further details.			
Conclusion	UN-level SDGs	Contribution of Project-level Actions to SDG Targets	Monitoring Procedure	Assessment
	Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	The project increases the renewable energy share in China's energy production mix. It provides clean energy to the grid.	Calculate the share of installed capacity from renewable energy.	The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by power generation through hydro power plant. The contribution towards SDG goal is being monitored by the parameter 'EG _{facility,y} '.

				<p>quantity of net electricity generation</p> <p>supplied by the project plant / unit to the grid in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p>
	<p>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<p>The project created job opportunity for both construction and operation period. It created long term employment for people who work during the operation period and short-term job opportunities for people who work during the construction period. The average number of people working on this project is 3,500, and the peak number is 4,200. The number of people working during the operation period is 125.</p>	<p>Check the number of persons employed</p>	<p>The contribution towards SDG goal is by providing employment by creating 125 long term jobs for the project activity and 3,500 – 4,200 jobs during construction period (not monitored and claimed).</p> <p>The employment is being monitored by the parameter 'Long-term jobs (> 10 year) created/lost (SJ01)' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p>
	<p>Goal 13. Take urgent action to combat climate change and its impacts</p>	<p>Since the project uses hydropower, there is no GHG emissions related to the project.</p>	<p>Calculate avoided GHG emissions on a yearly basis.</p>	<p>The contribution towards SDG goal is being monitored by the parameter 'CO₂ emission' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p>
<p>The Project Owner has provided complete information in the PSF to demonstrate</p>				

	<p>that the chosen SDG goals positively contribute to the UN SDGs as required by paragraph 19, 20 and 21 of Project Sustainability Standard /B01-5/.</p> <p>Based on the documentation review, the verification team can confirm that Project Activity is likely to contribute to the 3 United Nations Sustainable Development Goals (7, 8 and 13) and would have a positive impact, hence, is eligible to achieve additional SDG+ (silver) certifications. The detailed matrix has been included in appendix 7 of the report.</p>
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D.13. Authorization on Double Counting from Host Country (for CORSIA)

Means of Project Verification	Document Review and Interviews
Findings	CAR 06 was raised and closed successfully. FAR 01 has been raised in this respect. Please refer to Appendix 4 for further details.
Conclusion	Referring to Section 5.1, GCC Project Standard, Submission of Host Country Attestation on Double Counting is mandatory requirement for projects that intend to use ACCs for CORSIA. As per GCC PSF, Project Owner intends to use ACCs issued from the proposed project for CORSIA. However, in Section H of PSF, it is stated “As per the guideline available in this regard, submission of Host Country Attestation (HCA) on Double Counting as and when required by CORSIA. For carbon credits generated during 01/01/2016 to 31/12/2020, HCA is not required for CORSIA labeled credits.”

D.14. CORSIA Eligibility (C+)

Means of Project Verification	Document Review and Interviews
Findings	CAR 06 was raised and closed successfully. FAR 01 has been raised in this respect. Please refer to Appendix 4 for further details.
Conclusion	<p>The project activity meets the CORSIA Eligibility as the crediting period is after 01/01/2016 and the project is applying for registration under GCC, which is one of the approved programmes for eligibility. It was also confirmed that the project activity does not fall under the excluded unit types, methodologies, programme elements, and/or procedural classes.</p> <p>Furthermore, the Project Activity does not cause any net harm to the environment and/or society and therefore achieves Environmental No-net-harm Label (E+) as well as Social No-net-harm Label (S+) in accordance with the Environmental and Social Safeguards Standard, version 3.0 /B02-4/. The project activity also contributes towards achieving United Nations Sustainable Development Goals (SDGs) by achieving 03 SDGs as per Project Sustainability Standard, version 3.0 to achieve SDG+ Label.</p> <p>The verification team therefore concludes that “The Project Activity complies with all the applicable requirement of the GCC Program and ICAO’s requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v 1.3 paragraph 23-25 /B01-6/, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project”.</p> <p>As per Clarification No.1 version 1.3 /B01-6/, for carbon credits generated during 01/01/2016 to 31/12/2020, Host Country Attestation is not required for CORSIA labeled credits. For carbon credits generated since 01/01/2021, HCA will be</p>

	submitted by PO prior to submission of requesting issuance for emission reductions to the GCC Program. Therefore, a FAR has been raised in this respect.
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Section E. Internal quality control

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The Verification report has undergone a technical review and quality review before being submitted for registration. A technical reviewer qualified in accordance with CCIPL's qualification scheme for GCC verification performed the technical review.

Section F. Project Verification opinion

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CC IPL was contracted by Guizhou Search CO2 Environmental Technology Service Co., Ltd for project verification of the project activity "Sichuan Qianwei Hydropower Project" in P.R. China The project verification was performed based on rules and requirements defined by GCC for the project activity.

The proposed project activity is a hydro power project, which results in reductions of CO₂e emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario and the emission reductions attributable to the project are, hence, additional to any that would occur in the absence of the project activity. The project correctly applies the approved baseline and monitoring ACM0002. Grid connected electricity generation from renewable sources; Version 21.0 /B01/ and is assessed against latest valid Project Standard /B02-1/, Verification Standard /B02-2/, Environment and Social Safeguards Standard /B02-4/, Project-Sustainability-Standard /B02-5/ and/or other applicable GCC/CDM Decisions/Tools/Guidance/Forms.

The project activity is likely to achieve the anticipated emission reductions stated in the PSF provided the underlying assumptions do not change. The expected emission reductions (annual average) from the project activity are estimated to be 1,116,837 tCO₂e/year over the 10 years crediting period starting from 30/05/2020.

CC IPL has informed the project owners of the project verification outcome through the draft project verification report and final project verification report. The final project verification report contains the information with regard to fulfilment of the requirements for project verification, as appropriate.

CC IPL applied the following verification process and methodology using a competent verification team:

- The desk review of documents and evidence submitted by the project owner in context of the reference GCC rules and guidelines issued,

- Undertaking/conducting site visit, interview, or interactions with the representative of the project owner
- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate
- Preparing a draft verification opinion based on the auditing findings and conclusions.
- Technical review of the draft project verification opinion along with other documents as appropriate by an independent competent technical review team.
- Finalization of the project verification opinion (this report)

The GCC Project Verifier, Carbon Check (India) Private Ltd, has verified and certifies that the GCC Project Activity “Sichuan Qianwei Hydropower Project” in P.R. China.

(a) Has correctly described the Project Activities in the Project Submission Form (Version 03, dated 20/09/2023) /01-b/ including the applicability of the approved methodology, ACM0002 Grid connected electricity generation from renewable sources; Version 21.0 /B01/ and meets the methodology applicability conditions, is additional and is expected to achieve the forecasted real and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reduction estimates correctly and conservatively;

(b) Is likely to generate 1,952,342 MWh / year of electricity (for the fixed 10 years crediting period), as indicated in the PSF version 02 /01-b/, which are generated from existing baseline scenario of the Central China Power Grid (CCPG) in the absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3, and therefore requests the GCC Program to register the Project Activity.

(c) Is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard (version 3.0) /B02-4/, and therefore requests the GCC Program to register the Project Activity, which is likely to achieve the requirements of the Environmental No-net-harm Label (E+) and the Social No-net harm Label (S+); and

(d) Is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), comply with the Project Sustainability Standard (version 3.1) /B02-5/, and contribute to achieving a total of 3 SDGs, which is likely to achieve the silver SDG certification label (SDG+).

(e) Complies with all the applicable requirement of the GCC Program and ICAO’s requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v 1.3 paragraph 23-25, /B01-6/ and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project.

The GCC project verification report describes a total of 19 findings, which include:

- 10 Corrective Action Requests (CARs);
- 08 Clarification Requests (CLs);

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- 01 Further Action Required (FARs);

All findings have been resolved by the project owner (except the FAR which needs to be resolved during emission reduction verification).

Appendix 1. Abbreviations

Abbreviations	Full texts
ACC	Approved Carbon Credits
ACC+	Approved Carbo Credit Label
CAR	Corrective Action Required
CC IPL	Carbon Check (India) Private Limited
CDM	Clean Development Mechanism
CL	Clarification Request
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CCPG	Central China Power Grid
DR	Document Review
E+	Environmental No net harm Label
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GCC	Global Carbon Council
GHG	Greenhouse Gas
GPS	Global Positioning System
GV	GCC Verifier
GWP	Global Warming Potential
HCA	Host Country Attestation
I	Interview
ICAO	International Civil Aviation Organization
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
LOA	Letter of Authorization
MENA	Middle East & North Africa
PO	Project Owner
PPA	Power Purchase Agreement
PSF	Project Submission Form
PVR	Project Verification Report Form
RFR	Request for registration
S+	Social No- net harm Label
SDG	Sustainable development goals
SDG+	United Nation Sustainable Development Goal Label
SQHP	Sichuan Qianwei Hydropower Project
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
VB	Verification Body

Appendix 2. Competence of team members and technical reviewers



Carbon Check (India) Private Limited

Certificate of Competency

Mr. Sanjay Agarwalla

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC 14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

<input checked="" type="checkbox"/> Validator	<input checked="" type="checkbox"/> Verifier	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Technical Expert
<input checked="" type="checkbox"/> Technical Reviewer	<input type="checkbox"/> Health Expert	<input type="checkbox"/> Gender Expert	<input type="checkbox"/> Plastic Waste Expert
<input checked="" type="checkbox"/> SDG+	<input checked="" type="checkbox"/> Social no-harm(S+)	<input checked="" type="checkbox"/> Environment no-harm(E+)	<input type="checkbox"/> CCB Expert
<input checked="" type="checkbox"/> Financial Expert	<input checked="" type="checkbox"/> Local Expert for India and Bangladesh		


in the following Technical Areas:

<input checked="" type="checkbox"/> TA 1.1	<input checked="" type="checkbox"/> TA 1.2	<input checked="" type="checkbox"/> TA 2.1	<input checked="" type="checkbox"/> TA 3.1	<input checked="" type="checkbox"/> TA 4.1
<input type="checkbox"/> TA 4. n	<input checked="" type="checkbox"/> TA 5.1	<input checked="" type="checkbox"/> TA 5.2	<input checked="" type="checkbox"/> TA 7.1	<input type="checkbox"/> TA 8.1
<input checked="" type="checkbox"/> TA 9.1	<input checked="" type="checkbox"/> TA 9.2	<input checked="" type="checkbox"/> TA 10.1	<input checked="" type="checkbox"/> TA 13.1	<input checked="" type="checkbox"/> TA 13.2
<input type="checkbox"/> TA 14.1	<input type="checkbox"/> TA 15.1			

Issue Date 1 st January 2023	Expiry Date 31 st December 2023
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Mr. Vikash Kumar Singh
Compliance Officer



Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023



Carbon Check (India) Private Limited

Certificate of Competency

Ms. Nara Shen Yan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input type="checkbox"/> SDG+ | <input type="checkbox"/> Social no-harm(S+) | <input type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for China | | |

in the following Technical Areas:

- | | | | | |
|----------------------------------|--|----------------------------------|----------------------------------|----------------------------------|
| <input type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input type="checkbox"/> TA 13.1 | <input type="checkbox"/> TA 13.2 |
| <input type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO



Carbon Check (India) Private Limited

Certificate of Competency

Mr. S. Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

- | | | | |
|--|--|---|--|
| <input checked="" type="checkbox"/> Validator | <input checked="" type="checkbox"/> Verifier | <input checked="" type="checkbox"/> Team Leader | <input checked="" type="checkbox"/> Technical Expert |
| <input checked="" type="checkbox"/> Technical Reviewer | <input type="checkbox"/> Health Expert | <input type="checkbox"/> Gender Expert | <input type="checkbox"/> Plastic Waste Expert |
| <input checked="" type="checkbox"/> SDG+ | <input checked="" type="checkbox"/> Social no-harm(S+) | <input checked="" type="checkbox"/> Environment no-harm(E+) | <input type="checkbox"/> CCB Expert |
| <input checked="" type="checkbox"/> Financial Expert | <input checked="" type="checkbox"/> Local Expert for India | | |

in the following Technical Areas:

- | | | | | |
|--|--|----------------------------------|---|---|
| <input checked="" type="checkbox"/> TA 1.1 | <input checked="" type="checkbox"/> TA 1.2 | <input type="checkbox"/> TA 2.1 | <input checked="" type="checkbox"/> TA 3.1 | <input type="checkbox"/> TA 4.1 |
| <input type="checkbox"/> TA 4. n | <input checked="" type="checkbox"/> TA 5.1 | <input type="checkbox"/> TA 5.2 | <input type="checkbox"/> TA 7.1 | <input type="checkbox"/> TA 8.1 |
| <input type="checkbox"/> TA 9.1 | <input type="checkbox"/> TA 9.2 | <input type="checkbox"/> TA 10.1 | <input checked="" type="checkbox"/> TA 13.1 | <input checked="" type="checkbox"/> TA 13.2 |
| <input type="checkbox"/> TA 14.1 | <input type="checkbox"/> TA 15.1 | | | |

Issue Date
1st January 2023

Expiry Date
31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PO	Initial PSF webhosted for GSC	version 01, dated, 10/05/2022	PO
		Final PSF being submitted for Rfr	version 03, dated, 20/09/2023	
2	PO	Emission reduction calculation spread sheet corresponding to /1-a/	version 01, dated, 10/5/2022	PO
		Emission reduction calculation spread sheet corresponding to /1-b/	version 03, dated, 10/05/2022	
3.	PO	IRR Spreadsheet corresponding to /1-a/	version 02, dated, 11/10/2022	PO
		IRR Spreadsheet corresponding to /1-b/	version 03, dated, 20/09/2023	
4	China Energy Construction Group Guangxi Electric Power Design and Research Institute Co., Ltd	Preliminary Design documents (volumes 1-11)	Date of Issue: 12/02/2015 Approved by Ministry of Housing and Urban-Rural Development of the People's Republic of China	PO
5.	PO	a. Civil Construction Contract	Dated 12/01/2016	PO
		b. Water Turbine Unit Purchase Contract 1	Dated 15/07/2016 Signed between Sichuan Minjiang Port and Channel Development Co., Ltd and Zhefu Holding Group Co. Ltd.	
		c. Water Turbine Unit Purchase Contract 2	Dated 15/07/2016 Signed between Sichuan Minjiang Port and Channel Development Co., Ltd and TOSHIBA Hydropower (Hangzhou) Co., Ltd.	
6.	PO	a. Commencement Application form stating electricity supply test run was completed on 30/05/2020	Stamped on 09/06/2020	PO
	Sichuan Province Port and Shipping Development Limited Responsibility Company	b. Commencement of construction form	Dated 16/12/2015 Construction start date 25/12/2015	
7.	Guangxi Electric Power Engineering Survey and Research Institute	Evidence for the project location: Comprehensive description of feasibility study report	Dated February 2012	PO

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8.	PO	Technical specifications of all the installed equipment used for the project activity (installed capacity, lifetime, efficiency, load factor etc)	-	PO
9.	Minjiang Port Avionics Development Co., Ltd	Monitoring Manual	Dated 10/05/2019	PO
10.	Yujin Power Station	Electricity Purchase and Sale Contract signed between Sihuan Electric Power Co., Ltd. and Sihuan Minjiang Hydropower Co., Ltd.	Dated 18/05/2020	PO
11.	PO	Company registration certificate for the Sichuan Minjiang Port and Channel Development Co., Ltd.	Date of Establishment: 02/04/2011	PO
12.	PO	Consulting service contract between Sichuan Minjiang Port and Channel Development Co., Ltd., and Guizhou Search CO2 Environmental Technology Service Co., Ltd	-	PO
13.	PO	<ul style="list-style-type: none"> - Board meeting minutes for investment decision date on 19/09/2015 - Equipment procurement contract for the 1st bid - Equipment procurement contract for the 2nd bid - Loan Contract - Mechanical and electrical equipment installation contract signed between Sihuan Minjiang Hydropower Co., Ltd. and Sinohydro Bureau 7 Co., Ltd. (dated 06/06/2017) - The 1st bid section of the civil construction contract - The 2nd bid section of the civil construction contract - The 3rd bid section of the civil construction contract - The 4th bid section of the civil construction contract 	-	PO
14.	Editorial Department of Sichuan Hydropower Journal Network	Sichuan Hydropower-Industry News - http://www.scsifd.com/	-	PO
15.	Sichuan Provincial People's Government	Reply on the construction land of Minjiang Qianwei Navigation Power Project	Approved by Sichuan Provincial People's Government on	

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			06/03/2020	
16.	Guangxi Taineng Engineering Consulting Co., Ltd.	Evidence related to the Local stakeholders meeting conducted during EIA: <ul style="list-style-type: none"> - Announcements made on 22/07/2010, 10/01/2013, and 11/01/2013. - Questionnaires circulated to the stakeholders - Minutes of Meeting dated 27/01/2013 - EIA report dated 10/01/ 2014 	-	PO
17.	Ministry of Ecology and Environment	2019 Baseline Emission Factors for Regional Power Grids in China, published by Chinese DNA http://www.mee.gov.cn/ywgz/ydgh/bh/wsqtkz/202012/t20201229_815386.shtml	Dated 29/12/2020	PO
18.	PO	Organization structure	-	PO
19.	Guangxi Taineng Engineering Consulting Co., Ltd.	Evidence related to environmental impact assessment (EIA): <ul style="list-style-type: none"> - EIA Report - EIA Approval by Ministry of Environmental Protection of the People's Republic of China 	EIA report dated 10/01/2014 and approval dated 11/03/2014	PO
20.	PO	Single line diagram from electricity generation to the electricity feed point at grid interconnection	-	PO
21.	Sichuan Minjiang Port and Channel Development Co., Ltd.,	Environmental Protection Acceptance Report	Dated 23/08/2022	PO
22.	Sichuan Minjiang Port and Channel Development Co., Ltd.,	Fish Breeding Station Pictures	Date taken – 15/02/2022 and 09/03/2023	PO
23.	Sichuan Minjiang Port and Channel Development Co., Ltd.,	Emergency Plan	Dated 10/06/2022	PO
24.	Sichuan Minjiang Port and Channel Development Co., Ltd.,	Training Pictures	Dated 17/05/2021, 22/09/2022, and 26/09/2022.	PO
25.	Sichuan Minjiang Port and Channel Development Co., Ltd.,	Sample Labour Contracts for Employment	Dated 06/09/2022, 12/08/2022, and 08/08/2022	PO
26.	Sichuan Provincial Department of	Resettlement Acceptance Committee Report	Dated 27/08/2021	PO

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	Water Resources			
27.	Ministry of Foreign Affairs of the People's Republic of China	China's Progress Report on Implementation of the 2030 Agenda for Sustainable Development	Dated August 2017	PO
28.	Sichuan Provincial Department of Water Resources	Training material on: - CPR - Safety Instructions for Working in Confined Spaces - Cause Analysis of Special Equipment Accidents dated 15/06/2022	-	PO
29.	PO	Letter of Authorization issued by Sichuan Minjiang Port and Channel Development Co., Ltd	Dated 20/05/2022	PO
30.	China Energy Construction Group Guangxi Electric Power Design Research Institute Limited	Evidence for the calculation of reservoir area according to the preliminary design document	Issued September 2015	PO
31.	Sichuan Province Electric Power Co., Ltd.	Test run certificates for 9 generators installed for the project activity: G9 connected on 30/12/2020 G8 connected on 16/04/2021 G7 connected on 01/11/2020 G6 connected on 30/10/2020 G5 connected on 30/08/2020 G4 connected on 01/09/2020 G3 connected on 23/04/2021 G2 connected on 30/12/2020 G1 connected on 26/05/2020	Issued on: 11/01/2021 29/04/2021 09/11/2020 09/11/2020 21/09/2020 21/09/2020 29/04/2021 11/01/2021 09/06/2020	PO
32.	Standing Committee of the tenth National People's Congress	Law of the People's Republic of China on Renewable Energies, http://www.gov.cn/ziliao/flfg/2005-06/21/content_8275.htm	Dated 01/01/2006	Publicly available
33.	State Power Corporation of China	Interim Rules on Economic Assessment of Electric Engineering Retrofit Projects	China Electric Power Press, 2002.	Publicly available
34.	PO	Sample Electricity sale receipts	January 2021 – December 2021	PO
35.	National Technical Committee of Electromagnetic metering	Electrical Meters for Measuring Alternating-current Electrical Energy (JJG 596-2012) https://www.chinesestandard.net/PDF/English.aspx/JJG596-2012	Issued on. 08/10/2012	Publicly available
36.	Government of P.R. China	DL/T448-2016 Technical administrative Code of Electric Energy Metering	2016	Publicly available
37.	CDM and VCS Registry	Investment analysis, Benchmark input parameters and subsequent validation reports issued by DOEs for various CDM and VCS registered renewable power	-	Publicly available

		projects located in P.R. China with their registration numbers CDM - 9294, 8341, 9286 and VCS2895, 2913.		
38	Standing Committee of the National People's Congress	Law of Labour of P.R. China - http://www.lawinfochina.com/Display.aspx?LookType=3&Lib=law&Cgid=9587&Id=705&SearchKeyword=&SearchCKeyword=&paycode=	Effective from 01/01/1995	Publicly available
39	Ministry of Environment Protection	Emission standard of environment noise for boundary of construction site (GB12523-2011) - https://english.mee.gov.cn/Resources/standards/Noise/Emission_Standard2/201207/W020120705646138906832.pdf	Date of Implementation 01/07/2012	Publicly available
40	Ministry of Environment Protection	Emission standard for industrial enterprises noise at boundary (GB 12348-2008) - https://english.mee.gov.cn/Resources/standards/Noise/Emission_Standard2/200907/W020081017398126509058.pdf	Date of Implementation 01/10/2008	Publicly available
41	PO	Waste Oil storage and delivery records	January 2021 – December 2021	PO
42	State Environmental Protection Bureau General Administration of Quality Supervision, Inspection and Quarantine	Regulation of Industry Solid waste Reposition and Disposal site Pollution Control (GB18599-2001) - https://www.mee.gov.cn/image20010518/1712.pdf	Implemented on 01/07/2002	Publicly available
43	State Environmental Protection Bureau General Administration of Quality Supervision, Inspection and Quarantine	Discharge standard of pollutants for municipal wastewater treatment plant (GB 18918-2002): https://english.mee.gov.cn/Resources/standards/water_environment/Discharge_standard/200710/W020061027518964575034.pdf	Implemented on 01/07/2003	Publicly available
44	Ministry of Environmental Protection	Interim Measures for Public Participation in Environmental Impact Assessment” (Huanfa [2006] No.28)	-	Publicly available
45	Sichuan Minjiang Port and Channel Development Co., Ltd.,	O&M Cost details (2021)	2021	PO
/B01/	CDM	CDM Methodology: ACM0002.: Grid connected electricity generation from renewable sources	-	Publicly available

		(version 21.0)		
/B02/	GCC	<ol style="list-style-type: none"> 1. GCC Project Standard, version 3.1 2. GCC Verification Standard, version 3.1 3. GCC Program Manual, version 3.1 4. Environment-and-Social-Safeguards-Standard, version 3 5. Project-Sustainability-Standard, version 3.1 6. Clarification no. 1, version 1.3 7. Clarification no. 3, version 1.0 8. Standard on double accounting, version 1.0 	-	Publicly available
/B03/	GCC	PSF Template	Version 4.0	Publicly available
/B04/	CDM	<ol style="list-style-type: none"> 1. TOOL01: Tool for the demonstration and assessment of additionality, version 07.0.0 2. TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 3.0 3. TOOL07: Tool to calculate the emission factor for an electricity system, version 7.0 4. TOOL24: Common Practice, version 03.1 5. TOOL27: Investment analysis, version 11.0 6. TOOL32: Positive lists of technologies, version 4.0 	-	Publicly available
/B05/	UNFCCC	Clean Development Mechanism (CDM) Registry: https://cdm.unfccc.int/Projects/projectsearch.html	-	Publicly available
/B06/	VERRA	VERRA Registry: https://registry.verra.org/app/search/VCS/All%20Projects	-	Publicly available
/B07/	Gold Standard	Gold Standard Impact Registry: https://www.goldstandard.org/resources/impact-registry	-	Publicly available
/B08/	UNFCCC	EB 48 Annex 11 Guidelines for The Reporting and Validation of Plant Load Factors	Version 01 17/07/2009	Publicly available

Appendix 4. Clarification request, corrective action request and forward action request

Table 1. CLs from this Validation

CL ID	01	Section no.	-	Date: 09/05/2023
Description of CL				
Project owner is requested to provide credible evidence/supporting documents for the following:				
<ul style="list-style-type: none"> a. Letter of Authorization (LOA) b. Evidence for legal ownership (eg: company registration certificate) c. Proof of Investment decision made on 16th September 2015. d. Input values for Investment analysis available at the time of investment decision making date. e. Common practice analysis sheet along with credible evidence. f. Meter reading records g. Sample invoices raised for electricity sale. h. Generation records (since the commissioning of the project) i. On-site electricity consumption records j. Meter calibration records since the commissioning of the project and National standard for meter calibration. k. Local stakeholder meeting photographs, filled questionnaires, and attendance sheet. l. Monitoring records for Noise levels, Wastewater generation, Solid waste generation, Soil erosion, TSP, NO2 and SO2 levels. m. Worker's Contracts for employment and employment records (distinct for long term and short term jobs) n. Worker payroll records (social insurance payment certificates) o. Training records p. Environmental Protection Completion Acceptance (EPCA) q. Environmental Acceptance and Completion report along with its approval 				
Project Owner's response				Date: 12/08/2023
<i>The credible evidence/supporting documents listed above have been provided.</i>				
Documentation provided by Project Owner				
<p>LON Business license Investment decision meeting minutes Preliminary design document vol 1-11 Electricity sale receipts 2021 Calibration records Stakeholder Meeting Minutes Notification of stakeholder meeting Qianwei Questionnaires Fish breeding station Pics Labour Contract Training pictures and material Emergency plan Environmental Protection Acceptance</p>				
Project verifier assessment				Date: 14/09/2023
Supporting documents have been provided. Therefore, this CL is closed.				
CL ID	02	Section no.	D.2, D.8	Date: 09/05/2023
Description of CL				

In the PSF, Sichuan Minjiang Port and Channel Development Co., Ltd. is mentioned as the project owner. However, on the GCC project portal, Guizhou Search CO2 Environmental Technology Service Co., Ltd. is listed as the project owner. Also, the Letter of Authorization (LOA) has not been provided to the verifier. Therefore, PO is requested to provide LOA and authenticate the identity of the legal owner and authorized project owner for the proposed project activity and update Appendix 1 accordingly.	
Project Owner's response	Date: 12/08/2023
<i>The contents have been revised. The Project Owner is Guizhou Search CO2 Environmental Technology Service Co., Ltd.</i>	
Documentation provided by Project Owner	
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023 LON	
Project verifier assessment	Date: 14/09/2023
PSF has been revised to indicate the PO as Guizhou Search CO2 Environmental Technology Service Co., Ltd. which is consistent with the LOA and the GCC project portal. Therefore, this CL is closed.	

CL ID	03	Section no.	D.3.3, D.3.6	Date: 09/05/2023
Description of CL				
In section B.3 of the PSF, PO is requested to provide clarification on the applicability of the project emissions listed below that are believed to be relevant to the proposed hydro project activity:				
<ul style="list-style-type: none"> a. For dry or flash steam geothermal power plants, emissions of CH4 and CO2 from non-condensable gases contained in geothermal steam. b. For binary geothermal power plants, fugitive emissions of CH4 and CO2 from non-condensable gases contained in geothermal steam. c. For binary geothermal power plants, fugitive emissions of hydrocarbons such as n-butane and isopentane (working fluid) contained in the heat exchangers. d. CO2 emissions from combustion of fossil fuels for electricity generation in solar thermal power plants and geothermal power plants. 				
Project Owner's response				Date: 12/08/2023
<i>The content of Section B.3 has been revised. Clarification on the applicability of the project emissions listed above has been provided.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made in the PSF are acceptable to the project verifier. Therefore, this CL is closed.				

CL ID	04	Section no.	D.3.5	Date: 09/05/2023
Description of CL				

Following findings are raised with respect to demonstration of additionality:	
<ul style="list-style-type: none"> a. In section B.5 of the PSF, PO needs to demonstrate the legal requirement test in accordance with paragraph 16 (b) of the GCC Project Standard (v 3.1) and the relevant footnotes therein. b. In section B.5 of the PSF, Step 0, referring to section 4.1 of the applied TOOL 01 has not been discussed. c. PO is requested to provide chronology of events in section B.5 of the PSF along with evidence, leading to investment decision and project implementation. d. PO needs to confirm (with credible evidence) on the compliance of paragraph 10 of CDM Tool 27, version 11 which states “<i>Input values used in all investment analysis shall be valid and applicable at the time of the investment decision taken by the project participant.</i>” PO further needs to check and confirm that the listed input values have been consistently applied in all calculations available at the time of decision-making date for the project. e. PO is requested to justify the suitability of applied benchmark in particular, appropriateness of a benchmark of 2002, when assessing the additionality of the project activity with investment decision made in September 2015 and further confirm on the selected financial indicator in section B.5 of the PSF i.e., either equity or project IRR. Additionally, in line with guidance provided in para 17 of Tool 27, PO needs to demonstrate that the benchmark applied is based on parameters that are standard in the market. f. With respect to salvage value, PO is requested to demonstrate compliance to paragraph 09 of TOOL 27 which states that “<i>Depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, shall be added back to net profits for the purpose of calculating the financial indicator.</i>” g. Under Sensitivity Analysis, PO shall include description of levels of variations and values at which the benchmark will be breached and also justify why such variations are not realistic or likely to happen. As the project is already commissioned, PO is requested to provide the actual project incurred, O&M cost being incurred, electricity tariff being earned, amount of electricity being supplied to grid, and loan interest rate for comparison purpose. h. In line with guidance provided in Clarification number 01, version 03 (Footnote 8 - C), PO is requested to confirm that the project is not generating any additional revenues stream from the sale of the environmental attributes/units and in case yes are those revenue streams are included in the Investment analysis. 	
Project Owner’s response	Date: 12/08/2023
<p><i>The contents have been revised.</i></p> <ul style="list-style-type: none"> a. <i>The proposed project is not enforced by law. The project passes the legal requirement test since there are no enforced laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring its implementation.</i> b. <i>Step 0 of the tool has been discussed.</i> c. <i>The chronology of events has been provided.</i> d. <i>The input parameters taken were available at the time of investment decision.</i> e. <i>The content of additionality has been revised. IRR has been provided as evidence.</i> f. <i>The annual operating cost is estimated based on the insurance expenditure, salaries & welfare, material costs and other costs etc, which do not include the depreciation costs and loan interest. Depreciation has not been deducted in estimating gross profits on which tax is calculated.</i> g. <i>The content of Sensitivity Analysis has been revised.</i> h. <i>The project is not generating any additional revenues stream from the sale of the environmental units.</i> 	
Documentation provided by Project Owner	
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023 IRR v2.0	
Project verifier assessment	Date: 14/09/2023

<p>a. The Legal requirement test has been confirmed in section B.5 of the PSF and verified by the assessment team in this report. It is confirmed that there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions or other legally binding mandates requiring its implementation, or requiring the implementation of a similar technology/measure that would achieve equivalent levels of GHG emission reductions.</p> <p>b. PO has revised the PSF to discuss Step 0 of TOOL 01.</p> <p>c. PO has revised section B.5 of the PSF to provide chronology of events along with relevant supporting documents.</p> <p>d. It is confirmed that all the input parameters for financial analysis are taken from preliminary design document available at the time of decision making of the project activity. Also, PO has satisfactorily defined key milestones of the project in section B.5. of the PSF. Therefore, this part of the CL is closed.</p> <p>e. PO has satisfactorily revised section B.5 of the PSF to justify the suitability of applied benchmark and the verification team has provided its assessment in this report.</p> <p>f. PO has revised section B.5 of the PSF to include description of levels of variations at which the benchmark will be breached and has justified satisfactorily why such variations are not likely to happen and confirmed the actual values for parameters to cross check the input values in investment analysis.</p> <p>g. The project verifier by interview with PO representative and searching on google search engine, confirms that the project does not generate additional revenue from the sale of the environmental attributes/units and there are no incentives and subsidies offered by the government.</p> <p>Therefore, this CL is closed.</p>
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CL ID	05	Section no.	D.3.5	Date: 09/05/2023
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Description of CL				
Following findings are raised with respect to common practice analysis:				
<p>a. Consideration of the geographical location to only Sichuan province is not explained sufficiently. The project owner is requested to clarify the project specific conditions/parameters affecting the project implementation in Sichuan Province only.</p> <p>b. The start date for common practice analysis is considered as 16th September 2015, which is the investment decision date. In line with this, PO is requested to provide chronology of events in the PSF for project implementation and demonstrate that the start date selected for common practice analysis is in line with the definition for the same stated in glossary: CDM terms (Version 11.0).</p> <p>c. The source for selection of existing power plants is not mentioned in the PSF.</p> <p>d. PO is requested to provide an excel sheet demonstrating all the steps of common practice analysis.</p>				

Project Owner's response				Date: 12/08/2023
<p>a. <i>The contents have been revised.</i></p> <p>b. <i>The start date of the for common practice analysis has been change.</i></p> <p>c. <i>The source for the selection of existing power plants has been added in PSF.</i></p> <p>d. <i>There are no plants identified with the criteria mentioned in TOOL 24.</i></p>				

Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				

Project verifier assessment				Date: 14/09/2023
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<p>a. It has been demonstrated by the project owner and verified by the assessment team that the Provinces in China are very large in terms of geographical area, population size and natural resource availability. The Investment and regulatory environment vary significantly between provinces in China. Further, the Chinese grid is also divided into 6 different regional grids having different grid regulation. Also, each province does have a separate regulatory policy as well as project approval/EIA approval process. This fact is evident from the current project activity, where EIA and project approval are processed through regional approval bodies of the Sichuan Province. Since it is substantiated that all provinces, grids and zones have different investment climate, the geographical area of Sichuan province is accepted by the assessment team for common practice analysis.</p> <p>b. The chronology of events has been added in the PSF and the date considered for common practice</p>
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<p>analysis is 12/01/2016 when the civil construction contract which aligns with CDM start date.</p> <p>c. The source for selection of existing power plants is mentioned in the PSF.</p> <p>d. Since there are no plants identified with the criteria mentioned in TOOL 24, CPA analysis sheet is not being provided which is deemed acceptable.</p> <p>This CL is closed.</p>

CL ID	06	Section no.	D.1, D.4	Date: 09/05/2023
Description of CL				
<p>According to section C of the PSF, the start date of the project activity is 25th December 2015, and the start date of the crediting period is 30th May 2020 and PO has identified the project type as Type A2. However, paragraph 11 (a) (ii) of the GCC Project Standard (v 3.1) states that, <i>“These types of projects are prompt-start and had already started their operations as of 5 July 2020. Their start date of operations shall be after 1 January 2016 but before 5 July 2022. These types of projects shall submit complete registration requests to the GCC Program no later than 5 July 2022. The start date of the Crediting Period for such GCC Project Activities shall be on or after 1 Jan 2016 but not more than one year after the start date of the operations of the GCC Project Activity”</i>.</p> <p>In line with the stated requirement above and GCC Program Definitions (v 3.1), PO is requested to clarify the start date of the project activity and further explain why there is a gap of 5 years between the start date of the project activity and the start date of crediting period.</p>				
Project Owner’s response				Date: 12/08/2023
<p><i>The contents of the project start date have been revised. The content that caused the misunderstanding has been deleted.</i></p>				
Documentation provided by Project Owner				
<p>2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023</p>				
Project verifier assessment				Date: 14/09/2023
<p>PO has clarified that the GCC start date of the project activity is 30th May 2020 when the electricity was first transmitted to the grid. The changes made in the PSF are acceptable to the project verifier. Therefore, this CL is closed.</p>				

CL ID	07	Section no.	D.10, D.11, D.12	Date: 09/05/2023
Description of CL				
<p>Following findings are raised with respect to E+, S+, and SDG+ labels:</p> <p>a. In Section E.1 of the PSF, for environmental impacts such as Noise Pollution, Solid waste, Generation of wastewater, etc, project owner is requested to identify compliance obligation under relevant regulations and to incorporate monitoring information with respect to compliance obligation under monitoring column of the table, PO is also requested to incorporate Risk Mitigation plan for Harmless parameters and update section B.7.2 of the PSF accordingly.</p> <p>b. In section E.1 of the PSF, PO needs to clarify how the parameters <i>“Solid waste Pollution from Plastics”, “Solid waste Pollution from Hazardous wastes”, “Solid waste Pollution from E-wastes”, and “Solid waste Pollution from end of life products/ equipment”</i> is not applicable to the project activity.</p> <p>c. In section E.2 of the PSF, the monitoring approach for parameters <i>“Long-term jobs (> 1 year) created/ lost”, “Sources of income generation increased/reduced”, and “Improving / deteriorating wealth distribution/ generation of income and assets”</i> is the same. PO is requested to clarify how 3 parameters with same monitoring approach are subject to +1 scoring.</p> <p>d. PO is requested to clarify why not all monitoring parameters, for each impact scored +1 in sections E.1 and E.2, are not defined in section B.7.1 / B.7.2 of the PSF.</p> <p>e. The selected UN target for SDG 13 is 13.3 i.e., <i>“Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning”</i>. PO is requested to clarify how the project level target i.e., <i>“Commissioning of renewable energy power plant”</i></p>				

Project Verification Report

aligns with the selected UN level target. PO is also requested to check the same for the corresponding indicator.	
Project Owner's response	Date: 12/08/2023
<p>a. <i>The contents of Section E.1 have been revised. The relevant monitoring information has been filled in the table.</i></p> <p>b. <i>The contents of Section E.1 have been revised. Only Solid waste Pollution from E-waste is not applicable to the project activity.</i></p> <p>c. <i>Sources of income generation increased/reduced”, and “Improving / deteriorating wealth distribution/ generation of income and assets are not scored now.</i></p> <p>d. <i>The contents of E.1 and E.2 have been revised.</i></p> <p>e. <i>The UN target and the project level target have been revised to align with each other.</i></p>	
Documentation provided by Project Owner	
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023	
Project verifier assessment	Date: 14/09/2023
The changes made in the PSF are acceptable to the project verifier. Therefore, this CL is closed.	

CL ID	08	Section no.	D.6	Date: 09/05/2023
Description of CL				
PO is requested to provide clarification regarding local stakeholder's consultation dated prior to the mentioned date of investment decision and project start date in the PSF. Furthermore, PO also needs to justify how the LSC carried in December 2014 complies with GCC requirements (stated in PSF filling guidelines – para 71 (d)) for the same considering that the UN SDGs were adopted in 2015 during GA of United Nations only which is after the date of LSC conducted for the project activity.				
Project Owner's response				Date: 12/08/2023
The local stakeholder consultation carried out during EIA process fulfils the requirement of GCC. During the LSC, project specific information has been made publicly available to the local stakeholders. Additional to environmental impact, other aspects, such as economy, social community, ecology, cultural relics protection, forest and agriculture, work and daily life, carbon credits, etc. were also included during the LSC process.				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
PO has explained that during local stakeholder consultation, the advantages of the project including economic development (job opportunities), clean energy (electricity generation through landfill gas capture), and emission reductions were discussed with the stakeholders which covers No net Harm to Environment/Society and SDG impacts. All the requirements for LSC were taken care of during EIA and are deemed acceptable to the project verification team. Therefore, this CL is closed.				

Table 2. CARs from this Project Verification

CAR ID	01	Section no.	--	Date: 09/05/2023
Description of CAR				
According to clarification published by GCC with respect to adoption of latest version of PSF, “all projects which were published for GSC after 06 September 2022, when the new Environment and Social Safeguard Standard and Sustainability Standard (version 3.0) came into force, till date, shall adopt the new PSF template (version 4.0) before the Request for Registration (RfR) is submitted”. In line with this requirement, PO is requested to use the latest version of the PSF available on the GCC portal and apply the latest versions of Environment and Social Safeguard Standard and Sustainability Standard.				
Project Owner's response				Date: 12/08/2023
<i>The PSF has been updated to the latest version.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023

Project Verification Report

PO has adopted the latest version of the PSF. Hence this CAR is closed.

CAR ID	02	Section no.	-	Date: 09/05/2023
Description of CAR				
In the table of contents of the PSF, formatting error is observed in the title for section B.7.2. PO is therefore requested to rectify the error.				
Project Owner's response				Date: 12/08/2023
<i>The table format has been rectified.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	03	Section no.	-	Date: 09/05/2023
Description of CAR				
On the cover page of the PSF:				
<p>a. Under “Choose optional and additional requirements”, “Do-no-net-harm Safeguards to address Environmental Impacts” and “Do-no-net-harm Safeguards to address Social Impacts” are not checked. However, as per Section E of the PSF and information provided on GCC portal, project Owner is claiming these labels.</p> <p>b. Under “Applicable Rules and Requirements for Project Owners”, reference for clarification no.1 and Standard for double accounting is not given.</p>				
Project Owner's response				Date: 12/08/2023
<i>The contents of cover page have been revised.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	04	Section no.	D.2, D.3.4	Date: 09/05/2023
Description of CAR				
In section A.1 of the PSF, PO is requested to provide a summary of the baseline scenario for the project activity to comply with the requirement of the PSF template.				
Project Owner's response				Date: 12/08/2023
<i>The summary of the baseline scenario for the project activity has been provided in Section A.1.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	05	Section no.	D.2	Date: 09/05/2023
Description of CAR				
In section A.3 of the PSF, details regarding the monitoring equipment and their location in the systems along with the installed capacities, load factors and efficiencies are not included.				
Project Owner's response				Date: 12/08/2023
<i>The contents have been added in Section A.3. The details regarding the monitoring equipment and their location in the systems along with the installed capacities, load factors, and efficiencies have been added.</i>				

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Documentation provided by Project Owner	
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023	
Project verifier assessment	Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.	

CAR ID	06	Section no.	D.13, D.14	Date: 09/05/2023
Description of CAR				
In section A.6 of the PSF, it is unclear if the project activity is targeting towards CORSIA or not. Also, the requirements for CORSIA credits as mentioned in the GCC Project Standard (version 3.1) has to be justified as per clause 14 (c).				
Project Owner's response				Date: 12/08/2023
<i>The contents of Section A.6 have been revised. The project activity is targeting CORSIA.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	07	Section no.	D.3.1	Date: 09/05/2023
Description of CAR				
In section B.2. of the PSF:				
a. The applicability condition stated in paragraph 6 of ACM0002 (v 20.0) is not included.				
b. The applicability conditions stated in paragraphs 9 and 10 of TOOL 1 (v 07.0.0) are not included.				
c. The applicability conditions stated in paragraphs 4, 5, and 6 of TOOL 7 (v 7.0) are not included.				
Project Owner's response				Date: 12/08/2023
<i>The contents of the applicability of methodology and tools applied in the project have been revised.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	08	Section no.	D.3.3	Date: 09/05/2023
Description of CAR				
According to paragraph 20 of ACM0002 (version 20.0), "the spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the CDM project power plant is connected to." However, the project boundary diagram in section B.3 of the PSF does not show all power plants/units connected to the grid.				
Project Owner's response				Date: 12/08/2023
<i>The project boundary diagram has been updated.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.				

CAR ID	09	Section no.	D.3.7	Date: 09/05/2023
Description of CAR				

Project Verification Report

Following findings are raised with respect to the monitoring plan of the proposed project activity:	
<p>a. PO needs to ensure that all parameters of aspects which have positive impacts on environment and society for e.g., CO₂ Emissions Reduction, Number of people employed by the project etc. to be included under section B.7.1 of the PSF and all aspects which have negative impacts (irrespective of being harmless or harmful) are listed under section B.7.2 of the PSF.</p> <p>b. In sections B.7.1 and B.7.4 of the PSF, for QA/QC procedures, PO has stated that all monitoring data and records will be archived electronically and be kept at least for 2 years after the end of the last crediting period. However, this should be kept 2 years after the end of crediting period or till the last issuance of ACCs for the project activity whichever occurs</p>	
Project Owner's response	Date: 12/08/2023
<p><i>The contents of the sections have been revised.</i></p> <p>a. <i>The parameters of aspects have been added.</i></p> <p>b. <i>The content has been revised. The data will be recorded and kept for 2 years after the end of the crediting period or till the last issuance of ACCs for the project activity whichever occurs.</i></p>	
Documentation provided by Project Owner	
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023	
Project verifier assessment	Date: 14/09/2023
The changes made by PO in PSF is accepted by verification team, hence this CAR is closed.	

CAR ID	10	Section no.	D.6	Date: 09/05/2023
Description of CAR				
In section G.1 of the PSF, the means for inviting stakeholders' participation is not mentioned. Additionally, summary report of comments received from local stakeholders has not been added in Appendix 6 of the PSF.				
Project Owner's response				Date: 12/08/2023
<i>The summary of comments received has been added in Section G.1.</i>				
Documentation provided by Project Owner				
2023-8-12 Qianwei Project-Submission-Form-V4.0-12082023				
Project verifier assessment				Date: 14/09/2023
PO has revised section G.1 of the PSF to include the means for inviting stakeholders' participation and revised appendix 6 to add summary report of comments received from local stakeholders. This is deemed acceptable to the verification team and therefore this CAR is closed.				

[Table 3. FARs from this Project Verification](#)

FAR ID	01	Section no.	D.13, D.14	Date: 09/05/2023
Description of FAR				
Project Owners shall demonstrate the compliance to CORSIA requirements for the credits claimed beyond 31 December 2020 with respect to double counting and HCLOA requirements and also future CORSIA requirements applicable time to time for the project activity.				
Project Owner's response				Date: DD/MM/YYYY
-				
Documentation provided by Project Owner				
-				
Project verifier assessment				Date: DD/MM/YYYY

Appendix 5. Environmental Safeguard assessment

Impact of Project Activity on		Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards								Project Owner's Conclusion		GCC Project Verifier's Conclusion (To be included in Project Verification Report only)
		Description of Impact (positive or negative)	Legal/voluntary corporate requirement / regulatory/voluntary corporate threshold Limits	Do-No-Harm Risk Assessment (choose which ever is applicable)			Risk Mitigation Action Plans for aspects marked as Harmful		Performance indicator for monitoring of impact	Ex-ante scoring of environmental impact	Explanation of the Conclusion	3 rd Party Audit
				Not Applicable	Harmless	Harmful	Operational Controls	Program of Risk Management Actions				
<p>Environmental Aspects on the identified categories⁸ indicated below.</p>	<p>Indicators for environmental impacts</p>	<p>Describe and identify anticipated and actual significant environmental impacts, both positive and negative from all sources (stationary and mobile) during normal and abnormal/emergency conditions, that may result from the construction and operations of the Project Activity, within and outside the project boundary, over which the Project Owner(s) has/have control.</p>	<p>Describe the applicable national regulatory requirements /legal limits / voluntary corporate limits related to the identified risks of environmental impacts.</p>	<p>If no environmental impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as Not Applicable</p>	<p>If environmental impacts exist but are expected to be in compliance with applicable national regulatory /stricter voluntary corporate requirements and will be within legal/voluntary corporate limits by way of plant design and operating principles, then the Project Activity is</p>	<p>If negative environmental impacts exist that will not be in compliance with the applicable national legal/regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm (may be un-safe) and shall be indicated</p>	<p>Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as 'Harmful' at least to a level that is in compliance with applicable legal/regulatory requirements or industry best practice or stricter voluntary corporate requirements</p>	<p>Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., installation of pollution control equipment) that will be adopted to reduce or eliminate the risk of impacts that have been identified as Harmful.</p>	<p>Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it is harmless or harmful. The frequency of monitoring to be specified as well including the data source.</p>	<p>-1 0 +1</p>	<p>Confirm the score of environmental impact of the project with respect to the aspect and its monitored value in relation to legal /regulatory limits (if any) including basis of conclusion.</p>	<p>Describe how the GCC Verifier has assessed that the impact of the Project Activity against the particular aspect and in case of "harmful impacts" how has the project adopted Risk Mitigation Action Plans to mitigate the risks of negative environmental impacts to levels that are unlikely to cause any harm as well as the net positive impacts of the project with respect to the most likely baseline alternative.</p>

⁸ sourced from the CDM SD Tool and the sample reports are available (<https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx>)

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					unlikely to cause any harm (is safe) and shall be indicated as Harmless /If the project has a positive impact on the environment mark it as "harmless" as well.	as Harmful						
Reference to paragraphs of Environmental and Social Safeguards Standard		Paragraph 12 (a)	Paragraph 13 (c)	Paragraph 13 (d) (i)	Paragraph 13 (d) (ii)	Paragraph 13 (d) (iii)	Paragraph 13 (e) (i)	Paragraph 13 (e) (ii)	Paragraph 12 (c) and Paragraph 13 (f)	Paragraph 22		Paragraph 24 and Paragraph 26 (a) (i)
Environment - Air	SO _x emissions (EA01)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	NO _x emissions (EA02)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	CO ₂ emissions (EA03)	The hydropower station project helps to reduce CO2 emissions since it reduced the amount of fossil fuels used for electricity generation.	None	N/A	Harmless The impact is positive with respect to the baseline alternative.	-	-	-	Electricity supply will be monitored to calculate GHG emission reduction.	+1	The electricity generation monitoring will be conducted by using electricity meters. And the emission reduction can be calculated based on that.	The project activity being renewable power generation that avoids CO2 emissions that would have occurred in baseline scenario due to the electricity generation in thermal power plants. The impact is being monitored through parameter 'CO2 emission' and is verified under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.

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	CO emissions (EA04)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Suspended particulate matter (SPM) emissions (EA05)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Fly ash generation (EA06)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Non-Methane Volatile Organic Compounds (NMVOCs) (EA07)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Odor (EA08)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Noise Pollution (EA09)	The main noise during the operation period is the noise generated by the turbine and transformer. After free attenuation, the noise will have little impact on the surrounding environment.	Emission standard of environment noise for boundary of construction site (GB12523-2011.) and Emission standard for industrial enterprises noise at boundary (GB12348-2008.)	-	Harmless	-	Based on Technical specifications for environmental noise monitoring (HJ 640-2012), Local environmental monitoring agency carries out noise detection once a year to ensure that the noise generated by all equipment during normal operation does not exceed 65 decibels outside a specific range.	Noise equipment and construction techniques were adopted during the construction period. In addition, equipment noise reduction measures including the set-up of sound dissipation facilities and sound barrier.	The noise meets the requirements of the national "Sound Environmental Quality Standard" Category 2 standard requirements at 350 meters from the turbine, while the nearest settlement is 2 km away. Therefore, the noise during the operation period has no impact on the surrounding environment.	+1	The noise produced by the turbine under normal working conditions is very small, and it is hardly audible outside the factory building.	This is covered to monitor impacts from noise generated by the project activity. The impacts are being monitored through parameters 'Noise Pollution' and discussed under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.
Environment - Land	Solid waste Pollution from	The solid waste during the operation period mainly includes domestic waste by onsite project staffs. Domestic waste is collected	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Plastics (EL-01)	and classified in the trash bins, and then transported to landfill site by the local environmental sanitation department.										
Solid waste Pollution from Hazardous wastes (EL02)	Turbine oil waste is temporarily stored in special storage containers and recycled by the supplier. Transformer oil waste is stored in a 100L accident oil pool.	The storage, transfer and treatment of waste oil shall strictly comply with the Regulation of Industry Solid waste Reposition and Disposal site Pollution Control (GB18599-2001)	N/A	Turbine oil waste and transformer oil waste will be well temporarily stored and entrusted to a qualified company for treatment in the end, which is deemed harmless.	N/A	N/A	The storage and transfer of waste oil will be recorded in the operation log.	The storage, transfer, and treatment of waste shall strictly comply with the requirements of relevant specifications and standards, which is deemed harmless.	+1	The local environmental protection authority is responsible for supervising the collection and transfer of waste oil.	This is covered to monitor impacts from waste mineral oil generated by the project activity. The impacts are being monitored through parameters 'Hazardous waste' and discussed under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.
Solid waste Pollution from Bio-medical wastes (EL03)	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Solid waste Pollution from E-wastes (EL04)	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Solid waste Pollution from Batteries (EL05)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
Solid waste Pollution from end-of-life products/ equipment (EL06)	There may the wasted turbine or wasted electric elements during the operation period.	Regulation of Industry Solid waste Reposition and Disposal site Pollution Control (GB18599-2001)	N/A	The wasted turbine or wasted electric elements will be sent to the producer to repair or recovered accordingly. Harmless.	N/A	N/A	The repair and recovery of the wasted turbine or wasted electric elements will be recorded in the operating log.	Solid waste generated from end-of-life equipment will be collected and stored at designated locations, and regularly transported to qualified waste treatment plants for treatment.	+1	The local environmental protection authority is responsible for supervising the collection and transfer of solid waste.	This is covered to monitor impacts from end-of-life equipment generated by the project activity. The impacts are being monitored through parameter 'Solid waste pollution from end-of-life equipment' and discussed under section D.3.7 of this report.

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												An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.
	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury) (EL07)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	land use change (change from cropland /forest land to project land) (EL08)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
Environment - Water	Reliability/ accessibility of water supply (EW01)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Water Consumption from ground and other sources (EW02)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A
	Generation of wastewater (EW03)	The wastewater during the operation period mainly from domestic sewage from the working staff.	Class III of <Environmental Quality Standard of Surface Water> (GB3838-2002)	-	Domestic sewage is sent to the sewage treatment plant for treatment through integrated sewage facilities. Harmless.	-	N/A	N/A	Integrated sewage facilities operating normally. It's devoid of sewage leak at the site.	+1	Thanks to the installation of wastewater treatment systems and the good practice, the wastewater did not do harm to the environment.	This is covered to monitor impacts from condensed water generated by the project activity. The impacts are being monitored through parameters 'Generation of wastewater' and discussed under section D.3.7 of this report. An appropriate monitoring plan has

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													been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.
	<i>Wastewater discharge without/with insufficient treatment (EW04)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Pollution of Surface, Ground and/or Bodies of water (EW05)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Discharge of harmful chemicals like marine pollutants / toxic waste (EW06)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environment – Natural Resources	<i>Conserving mineral resources (ENR01)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Protecting/enhancing plant life (ENR02)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Protecting/enhancing species diversity (ENR03)</i>	Dams may stop fish from moving along their natural paths between feeding grounds and spawning grounds, interrupting their life cycle and reproduction.	None	-	Fish-friendly measures are to be set up. Harmless	-	Measures adopted to protect fish life include: 1) stock enhancement; 2) fish passage facilities; 3) other fish-friendly measures to make the ideal habitat for fish reproduction.	-	Fish population dynamics monitoring is carried out from April to July and October to November, for about 20 days per month. Monitoring of fish spawning grounds is from May to September, with no less than 60 days of annual monitoring period. Fish passage is mainly monitored from April to July, with a monitoring time span of not less than 90 days.	+1	The impact on fish features temporary and the impact will disappear after the project is completed. In addition, measures will be adopted to protect fish life. During the operation period, 1) fish population dynamics and changes in community composition 2) fish spawning grounds. 3) effectiveness of stock	This is covered to monitor impacts on various fish species due to the project activity. The impacts are being monitored through parameters 'Protecting/enhancing species diversity' and discussed under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.	

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											enhancement and 4) fish passage will be closely monitored.	
<i>Protecting/enhancing forests (ENR04)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Protecting/enhancing other depletable natural resources (ENR05)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Conserving energy (ENR06)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Replacing fossil fuels with renewable sources of energy (ENR07)</i>	The project utilizes renewable water resource to generate electricity, which will replace the electricity generated by fossil fuel plants of CCPG	N/A	N/A	Harmless	N/A	N/A	N/A	Continuous measuring for electricity generation will be done by using electricity meters.	+1	The project is expected to supply an average of 1,952,342 MWh renewable electricity to CCPG annually.	The impact is self-evident as project being a renewable energy power plant and baseline is fossil fuel dominated grid. The impact is being monitored through parameter 'EGfacility.y' and discussed under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring has found acceptable by the team.	
<i>Replacing ODS with non-ODS refrigerants (ENR08)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Net Score:		7										
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Project Owner's Conclusion in PSF:		The Project Owner confirms that the Project Activity will not cause any net harm to Environment.										
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GCC Project Verifier's Opinion:		The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to the environment...
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Appendix 6. Social Safeguard assessment

Impact of Project Activity on		Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards						Project Owner's Conclusion		GCC project Verifier's Conclusion (To be included in Project Verification Report only)	
		Description of Impact <i>(positive or negative)</i>	Legal requirement /Limit, Corporate policies / Industry best practice	Do-No-Harm Risk Assessment (Choose which ever is applicable)			Risk Mitigation Action Plans (for aspects marked as Harmful)	Performance indicator for monitoring of impact.	Ex-ante scoring of environmental impact	Explanation of the Conclusion	3 rd Party Audit
				Not Applicable	Harmless	Harmful					
Social Aspects on the identified	Indicators for social impacts	Describe and identify actual and anticipated impacts on society and stakeholders, both positive or negative, from all sources during normal and abnormal/emergency conditions that may result from constructing and operating of the Project Activity within or outside the project boundary, over which the project Owner(s) has/have control	Describe the applicable national regulatory requirements / legal limits or organizational policies or industry best practices related to the identified risks of social impacts	If no social impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as Not Applicable	If social impacts exist but are expected to be in compliance with applicable national regulatory requirements/ stricter voluntary corporate limits by way of plant design and operating principles then the Project	If negative social impacts exist that will not be in compliance with the applicable national legal/regulatory requirements or are likely to exceed legal limits, then the Project Activity is	Describe the operational or management controls that can be implemented as well as best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as Harmful .	Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it is harmless or harmful. The frequency of monitoring to be specified as well. Monitoring parameters can be quantitative or qualitative in nature	-1 0 +1	Confirm the score of the social impacts of the project with respect to the aspect and its monitored value in relation to legal/regulatory limits (if any) including	Describe how the GCC Verifier has assessed that the impact of Project Activity on social aspects (based on monitored parameters, quantitative or qualitative) and in case of "harmful" aspects how has the project owner adopted Risk Mitigation Action /

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<i>categories⁹ indicated below.</i>					<i>Activity is unlikely to cause any harm (is safe) and shall be indicated as Harmless), project having positive impact on society. To the BAU / baseline scenario must also mark their aspect as "harmless"</i>	<i>likely to cause harm and shall be indicated as Harmful</i>		<i>along with the data source</i>		<i>basis of conclusion</i>	<i>management actions plans and policies to mitigate the risks of negative social impacts to levels that are unlikely to cause any harm.</i> <i>Also describe the positive impacts of the project on the society as compared to the baseline alternative or BAU scenario.</i>
<i>Reference to paragraphs of Environmental and Social Safeguards Standard</i>		<i>Paragraph 12 (a)</i>	<i>Paragraph 13 (c)</i>	<i>Paragraph 13 (d) (i)</i>	<i>Paragraph 13 (d) (ii)</i>	<i>Paragraph 13 (d) (iii)</i>	<i>Paragraph 13 (e) (i)</i>	<i>Paragraph 12 (c) and Paragraph 13 (f)</i>	<i>Paragraph 23</i>		<i>Paragraph 24 and Paragraph 26 (a) (ii)</i>
Social - Jobs	<i>Long-term jobs (> 10 year) created/ lost (SJ01)</i>	The project creates long-term job opportunities during operation. The number of people working during the operation period is 125.	There is no legal requirement from the local authority.	-	The impact is positive compared to the baseline alternative. Harmless	-	-	The number of people employed in the project will be monitored via payment details.	+1	Employment has been recorded. Labor law protects the employees. In addition, there are signed contracts between the project owner and the employees.	The impacts being monitored throughout crediting period by parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' and is verified under section D.3.7 of this report. The employment was verified during the audit and by interviews and it was accepted by the Project verification team that appropriate monitoring plan has been implemented.
	<i>New short-term jobs (< 1 year) created/ lost (SJ02)</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<i>Sources of income generation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

⁹ sourced from the CDM SD Tool and the sample reports are available (<https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx>)

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	<i>increase / reduced (SJ03)</i>										
	<i>Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04) (Human rights)</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social - Health & Safety	<i>Disease prevention (SHS01)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Occupational health hazards (SHS02)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Reducing / increasing accidents / incidents / fatalities (SHS03)</i>	There may be occupational accidents at the site	All trainings and precautions are completed according to the Law of the People's Republic of China on Work Safety	N/A	Harmless	N/A	N/A	Accident occurrence statistics have to be kept on site.	+1	Conduct safety knowledge training for all employees every month to reduce the occurrence of safety accidents.	The impact is being monitored throughout the crediting period by parameter 'Accidents occurred at project site' and is verified under section D.3.7 of the report. The project owner shall provide the job-related Health and safety trainings to its employees on regular interval, and the number of accidents occurred can be verified at the time on emission reduction verification

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	<i>Reducing / increasing crime (SHS04)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Reducing / increasing food wastage (SHS05)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Reducing / increasing indoor air pollution (SHS06)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Efficiency of health services (SHS07)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Sanitation and waste management (SHS08)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Other health and safety issues (SHS09)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
Social - Education	<i>specialized training / education to local personnel (SE01)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Educational services improved or not (SE02)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A

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	<i>Project-related knowledge dissemination effective or not (SE03)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Other educational issues (SE03)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	
	<i>Job related training (SE04)</i>	The project owner provides technicians with relevant training sessions. They are trained to maintain equipment in good condition and learn about operations in hydropower facility.	None	-	The impact is positive compared to the baseline alternative. Harmless	-	-	Job-related training sessions have been conducted before the construction and operation period. To ensure an effective and efficient training, it is essential to monitor the process and how well the technicians assimilate this training. For each training session, technicians are asked to sign their names on the registration form, and they are also allowed to comment on the effectiveness of training and provide relevant feedback.	+1	Technicians would equip themselves with relevant domain knowledge and by attending training sessions, technicians can keep current on industry developments such as safety and quality requirements.	The impact is being monitored throughout the crediting period by parameter 'Job-related Training' and is verified under section D.3.7 of the report. The project owner shall provide the job-related Health and safety trainings to its employees on regular interval, and the number of trainings can be verified at the time on emission reduction verification.
Social - Welfare	<i>Improving/deteriorating working conditions (SW01)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Community and rural welfare (indigenous)</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A

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	<i>people and communities</i> (SW02)										
	<i>Poverty alleviation (more people above poverty level)</i> (SW03)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	<i>Improving / deteriorating wealth distribution / generation of income and assets</i> (SW04)	This project generates income but is not on the scale of improving wealth distribution or generation of income and assets.	-	-	-	-	-	-	-	-	N/A
	<i>Increase or / deteriorating municipal revenues</i> (SW05)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	
	<i>Women's empowerment</i> (SW06) <i>(Human rights)</i>	Women and men have the same rights, and employment conditions do not differ on grounds of gender.	Law on the Protection of Women's Rights and Interests	N/A	Harmless	N/A	N/A	The employment situation of personnel will be reported to the local labor and social security authority every month to ensure that there is no gender discrimination.	0	Anyone can report gender discrimination or illegal employment to the labor inspection authority.	The employment situation of personnel will be reported to the local labor and social security authority every month to ensure that there is no gender discrimination. However, PO will not score this parameter.
	<i>Reduced / increased traffic</i>	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	

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<p><i>congestion</i> (SW07)</p>										
<p><i>Exploitation of Child labour</i> (Human rights) (SW08)</p>	<p>The applicants must be at least 18 years old, and there is no employment of children and teenagers in this project.</p>	<p>Law on the Protection of Minors</p>	<p>N/A</p>	<p>Harmless</p>	<p>N/A</p>	<p>N/A</p>	<p>The employment situation of personnel will be reported to the local labor and social security authority every month to ensure that there is no child is hired.</p>	<p>0</p>	<p>By checking the date of birth of the ID card, it is confirmed that all employees are over the legal working age, which is 18 years old.</p>	<p>According to Promulgation of the State Council of the China Prohibiting the Use of Child Labor, employment of children under the age of 16 is prohibited in China.</p> <p>The employment /25/ was verified during the audit and by interviews and it was confirmed by checking the age of these employees that no child has been hired for the project activity.</p> <p>It was accepted by the verification team that an appropriate monitoring plan is going to be implemented.</p> <p>However, PO has considered zero score for this parameter and, it is verified as harmless.</p>
<p><i>Minimum wage protection</i> (Human rights) (SW09)</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>-</p>	<p>-</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p><i>Abuse at workplace. (With specific reference to women and people</i></p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>-</p>	<p>-</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

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	with special disabilities / challenges) (Human rights) (SW10)										
	Other social welfare issues (SW11)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	Avoidance of human trafficking and forced labour (Human rights) (SW12)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	Avoidance of forced eviction and/or partial physical or economic displacement of IPLCs (Human rights) (CW13)	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A
	Provisions of resettlement and human settlement	N/A	N/A	N/A	-	-	N/A	N/A	N/A	N/A	N/A

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	displacement (Human rights) (CW14)									
Net Score:		+3								
Project Owner's Conclusion in PSF:		The Project Owner confirms that the Project Activity will not cause any net harm to society.								
GCC Project Verifier's Opinion:		The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to society.								

Appendix 7. United Nations Sustainable Development Goals (SDG) assessment

UN-level SDGs	UN-level Target	Declared Country-level SDG	Defining Project-level SDGs				GCC Project Verifier's Conclusion (To be included in Project Verification Report only)	
			Project-level SDGs	Project-level Targets/Actions	Contribution of Project-level Actions to SDG Targets	Monitoring	Verification Process	Are Goal/Targets Likely to be Achieved?
<p>Describe UN SDG targets and indicators</p> <p>See: https://unstats.un.org/sdgs/indicators/indicators-list/</p>	Describe the UN-level target(s) and corresponding indicator no(s)	Has the host country declared the SDG to be a national priority? Indicate Yes or No	Define project-level SDGs by suitably modifying and customizing UN/ Country-level SDGs to the project scope or creating a new indicator(s). Refer to previous column for guidance.	Define project-level targets/actions in line with nee project level indicators chosen. Define the target date by which the project Activity is expected to achieve the project-level SDG target(s).	Describe and justify how actions taken under the Project Activity are likely to result in a direct positive effect that contributes to achieving the defined	Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG indicator and its correspondi	Describe how the GCC Verifier has verified the claims that the project is likely to achieve the identified Project level SDGs target(s).	Describe whether the project-level SDG target(s) is likely to be achieved by the target date (Yes or no)

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						<i>project-level SDG targets</i>	<i>ing target, frequency of monitoring and data source</i>		
Goal 1: End poverty in all its forms everywhere	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 3. Ensure healthy lives and promote well-being for all at all ages	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 5. Achieve gender equality and empower all women and girls	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 6. Ensure availability and sustainable management of water and sanitation for all	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 7. Ensure access to affordable, reliable, sustainable, and	According to SDG Target 7.2 "By 2030, increase	Yes	This project generates clean energy annually.	Increase the share of renewable energy sources in the total electricity generation.	Indicator 7.2.1 Renewable energy share in the total final	The project increases the renewable energy share in China's energy production	Calculate the share of installed capacity from renewable energy.	The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by power generation through hydro power plant. The contribution towards SDG	Yes

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<p>modern energy for all</p>	<p>sustainability the share of renewable energy in the global energy mix" by the utilization of biomass as a renewable energy source." Indicator 7.2.1 Renewable energy share in the total final energy consumption.</p>				<p>energy consumption. It is expected to provide 1,952,342 MWh renewable energy per year.</p>	<p>mix. It provides clean energy to the grid.</p>		<p>goal is being monitored by the parameter 'EGacility,y', quantity of net electricity generation supplied by the project plant / unit to the grid in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p>	
<p>Goal 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all</p>	<p>SDG Target 8.5 "By 2030, achieve full and productivity, employment and decent work for all women and men, including for young people and persons with disabilities and equal pay for work of equal value". Indicator 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities.</p>	<p>Yes</p>	<p>The project generates job opportunities and income.</p>	<p>Providing employment opportunities during the operation and construction period.</p>	<p>Provide both long-term and short-term job opportunities. The average number of people working on this project is 3,500, and the peak number is 4,200.</p>	<p>The project created job opportunity for both construction and operation period. It created long term employment for people who work during the operation period and short-term job opportunities for people who work during the construction period. The average number of people working on this project is 3,500, and the peak number is 4,200. The number of people working during the operation period is 125.</p>	<p>Check the number of persons employed</p>	<p>The contribution towards SDG goal is by providing employment by creating 125 long term jobs for the project activity and 3,500 – 4,200 jobs during construction period (not monitored and claimed). The employment is being monitored by the parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.</p>	<p>Yes</p>
<p>Goal 9. Build resilient infrastructure, promote inclusive</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

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and sustainable industrialization and foster innovation									
Goal 10. Reduce inequality within and among countries	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 12. Ensure sustainable consumption and production patterns	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 13. Take urgent action to combat climate change and its impacts	SDG Target 13.2 Integrate climate change measures into national policies, strategies and planning	Yes	It is estimated to eliminate 1,116,837 tCO2e on a yearly basis.	Commissioning of renewable energy power plant.	13.2.2 The project provides 1,116,837 tCO2e per year.	Since the project uses hydropower, there is no GHG emissions related to the project.	Calculate avoided GHG emissions on a yearly basis.	The contribution towards SDG goal is being monitored by the parameter 'CO2 emission' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.	Yes
Goal 14. Conserve and sustainably use the oceans, seas, and marine resources for sustainable development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Goal 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
SUMMARY							Targeted	Likely to be Achieved		
Total Number of SDGs							3	3		
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF							Silver	Silver		

DOCUMENT HISTORY

Version	Date	Comment
V 3.1	31/12/2020	<ul style="list-style-type: none"> ▪ The name of GCC Program’s emission units has been changed from “Approved Carbon Reductions” or ACRs to “Approved Carbon Credits” or ACCs.
V 3.0	23/08/2020	<ul style="list-style-type: none"> ▪ Revised version released on approval by the Steering Committee as per the GCC Program Process; ▪ Revised version contains the following changes: <ul style="list-style-type: none"> ○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); ○ Considered and addressed comments raised by the Steering Committee: <ul style="list-style-type: none"> ➢ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and ➢ electronic consultations EC01-Round 04 (17.08.2020 – 22.08.2020). ▪ Feedback from the Technical Advisory Board (TAB) of ICAO on GCC submissions for approval under CORSIA¹⁰;
V 2.0	25/06/2019	<ul style="list-style-type: none"> ▪ Revised version released for approval by the GCC Steering Committee. ▪ This version contains details and information to be provided, consequent to the latest worldwide developments (e.g., CORSIA EUC).
v1.0	01/11/2016	<ul style="list-style-type: none"> ▪ Initial version released for approval by the GCC Steering Committee under GCC Program Version 1

¹⁰See ICAO recommendation for conditional approval of GCC at https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt_TAB_Report_Jan_2020_final.pdf



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