



**Verified Carbon
Standard**

VALIDATION REPORT OF AKOCAK HYDROELECTRIC POWER PLANT

Earthood

Report ID	VCS.VAL.25.046 (1)
Project title	Akocak Hydroelectric Power Plant
Project ID	535
Crediting period	01-July-2020 to 30-June-2030
Original date of issue	12-December-2025
Most recent date of issue	10-June-2026
Version	03
VCS Standard Version	4.7
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Summary:

Earthood Services Limited (hereafter referred to as Earthood) has been contracted to validate the project activity " **Akocak Hydroelectric Power Plant** " (VCS ID- 535). The project proponents are Çanakçı HES Elektrik Üretim A.Ş., the legal owner and GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş., as the project consultant, ensuring compliance with the applicable requirements outlined in the VCS program guidelines and standards (VCS Standard Version 4.7/06/ and VCS Program Guide Version 4.4/07/). The project uses the VCS methodology, ACM0002 (Version 22.0)/04/. The project corresponds to the generation of clean electricity from hydropower plant and supplying the electrical power to the grid of Türkiye.

The objective of the validation is to perform a complete and independent review of the proposed project activity against the applicable VCS requirements, including the baseline, monitoring plan, and compliance with the relevant VCS and host country criteria. These are validated to ensure that the project design, as documented, is sound and reasonable, and that it fits the established standards. Validation is a prerequisite for all the VCS projects, and it is viewed as vital to give stakeholders assurance about the project's quality and expected emission reductions. The VVB's aim is to perform a complete, independent evaluation of the project activity.

The scope is the validation of renewal of crediting period for the project activity and is described as an objective and independent review of the project description (PD). The VCS PD/02/ is compared to the relevant criteria and guidance documents provided by VCS, including the VCS Program Guide/07/, VCS Standard/06/, Program Definitions/15/, and Issuance Process/23/ in order to ensure that the project currently meets the applicability conditions of the chosen baseline and monitoring methodology, ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources /04/.

The scope of the revalidation is to establish that:

- The proposed project activity complies with the corresponding registered VCS-PD/01/ and the latest version of the renewed VCS-PD /02/.
- The Proposed project activity complies with all relevant VCS rules and requirements. The VCS renewal of crediting period was based on the updated VCS-PD, estimated emission reduction

calculation spreadsheet, information from current validated VCS-PD and supporting documents made available to the Earthood by the project participants.

- The proposed monitoring plan complies with all requirements of applied methodology.

The validation, which was conducted following Earthood's internal quality procedures, consisted of the following phases:

a) Document review, involving:

- A review of data and information.
- Cross checks between information provided in the VCS PD/02/ and information from sources other than those used, if available, and if necessary independent background investigations.

b) Follow-up actions (e.g., site visit and telephone or email interviews), including:

- Interviews with relevant stakeholders in the host country, personnel with knowledge of the project design and implementation.
- Cross checks between information provided by interviewed personnel (i.e., by checking sources or other interviews) to ensure that no relevant information has been omitted.

c) Reference to available information relating to projects or technologies similar to the proposed project activity under validation of renewal of crediting period (RCP).

d) Review, based on the approved methodology being applied, of the appropriateness of formulae and accuracy of calculations.

A risk-based approach has been followed to perform this validation of RCP. During the validation process, a total of 06 findings were raised, which includes 04 Corrective Action Requests (CARs), 04 Clarification Requests (CLs) and 00 Forward Action Requests (FARs). The project proponent has successfully closed all the issues raised.

The VCS PD/02/, emissions reduction calculations/03/, and accompanying documents provided are all in compliance with VCS criteria. The validation of the RCP was completed with a reasonable level of assurance and no uncertainties were found related to the project activity validation.

Earthood Services Limited (hereafter referred to as Earthood) certifies that the project meets the requirements of the VCS PD template, v4.4/42/, the VCS Standard, v4.7/06/, and the applied methodology: ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources v22.0/04/. The estimated annual average and total emission reductions from the project activity, for the crediting period 01-July-2020 to 30-June-2030 (both days inclusive) are expected to be 117,598 tCO₂e average annually and 1,175,979 tCO₂e over the crediting period and has been successfully validated under VCS. Earthood issues a positive validation opinion, certifying that the project meets the applicable VCS standards and thereby proposing that it be registered.

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1 INTRODUCTION

1.1 Objective

Earthood Services Limited has been contracted to carry out validation of the renewal of crediting period for the VCS project activity “Akocak Hydroelectric Power Plant” against the relevant requirements of VCS programme guidelines and standard (VCS Standard Version 4.7/06/ & VCS Program Guide Version 4.4/07/). The title of the project activity is “Akocak Hydroelectric Power Plant” and its VCS ID is 535. The project activity is located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey, with the Powerhouse located on Karadere River, at 570 meters riverbed elevation. The purpose of this validation of Renewal of Crediting period is to have an independent third-party assessment of whether the project activity conforms to the qualification criteria set out in the VCS Standard, version 4.7/06/ to attain real, measurable, additional, and permanent emission reductions. The validation statement opinion is a written assurance that:

- The project complies with all the applicable VCS requirements and can generate the emission reductions stated over the project’s second crediting period.
- The validation of RCP followed the requirements of the current version of the VCS Standard, version 4.7/06/ and VCS Program Guide, version 4.4/07/ to ensure the quality and consistency of the validation work and the report.
- The project shall result in emission reductions as declared by the organisation or GHG project’s GHG assertion.

In order to fulfil the above objectives, the VVB assigned the task of assessment to validation team that is collectively qualified as per Earthood’s QMS manual and other internal requirements. The data reported is accurate, complete, consistent, transparent, and free of material error or omission.

1.2 Scope and Criteria

The scope of the validation of the renewal of crediting period is to establish/verify that:

- The project activity is in accordance with rules and legislation of the host country (Türkiye).
- The project activity is in accordance with all relevant VCS rules and requirements, which includes the following: VCS Program Guide v.4.4/07/ and VCS Standard v.4.7/06/, Program Definitions v.4.5/15/, Registration and Issuance Process v.4.5/23/ and VCS Validation and Verification Manual v.3.2/08/, including additionality, proof of title and compliance with local laws.

- The project activity is in accordance with the conditions of the latest version of applied VCS Methodology: ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources v22.0/04/.

The validation of the renewal of crediting period is based on the registered VCS-PD, revised VCS-PD and estimated GHG emission reduction calculations. The validation of the renewal of crediting period is based on the data provided to Earthood as well as the contract terms. The validation of the renewal of crediting period is not intended to provide any consulting towards the Client. However, indicated requests for forward and/or corrective actions may provide information for improving project monitoring to reduce GHG emissions. The validation of Renewal of crediting period of the project activity process is divided into four stages:

1. Desk review of Project Description (PD)
 - Evaluation of data and information
 - Cross-checks between information provided in the VCS PD/02/ and the registered VCS PD /43 / alongside information obtained from other sources using all available resources without regard to the project proponent's information.
2. On-site visit and follow-up interviews with project stakeholders
 - Telephone, email, or direct on-site interviews with relevant stakeholders in the host country with professionals with expertise of the project development.
 - Cross-checking the information provided by interviewed people with the information provided by the project proponent using all available means.
3. Reference to publicly available information about projects or technologies that are similar to the project under validation and review, using the accepted methodology for formulae and calculation accuracy.
4. The final validation report and opinion, as well as the resolution of remaining concerns

1.3 Reasonableness of Assumptions

☐ Limited Level of Assurance

☒ Reasonable Level of Assurance

The approach used by Earthood for validation of the renewal of crediting period is built on a thorough understanding of the risks associated with reporting data on GHG emissions and the controls used to mitigate them. Earthood conducted the validation of RCP by reviewing substantiating evidence and other relevant information and explanations from sources to provide reasonable assurance that estimated GHG emission reductions are fairly reported.

In the draft validation report (prepared by validation team), the information provided is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable VCS and CDM (Clean Development Mechanism) requirements as appropriate. The technical review team is collectively required to possess technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of the technical review team are independent of the validation team. The report approved by the Technical Manager is endorsed by the Managing Director, who is overall responsible for ensuring quality, before final release.

In our opinion the estimated and actual GHG emissions reductions were calculated correctly based on the approved baseline and monitoring methodologies: ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources v22.0/04/. The assessment result has a reasonable level of assurance in validation that GHG assertions are free of material errors, omissions, and misrepresentations. The document reviewed are included under Appendix 3 of this report.

1.4 Summary Description of the Project

The summary description of the project activity has been illustrated in section 1.1 of VCS PD/02/ appropriately. As per the given details in VCS PD, information was assessed on-site and found to be consistent. The project activity “Akocak Hydroelectric Power Plant” involves generation of clean electricity from hydroelectric power plant. The project is an initiative undertaken voluntarily by its proponent. There are no regulatory constraints pertaining to the Hydro Power project in the host country's laws and regulations. The owner of the project has been changed from Akenerji Elektrik Üretim A.Ş. to Çanakçı HES Elektrik Üretim A.Ş. on 01/01/2016 for the period of 38 years 10 months 22 days as per the generation license of the project activity. This has been verified with updated generation license/27/. The project proponents are Çanakçı HES Elektrik Üretim A.Ş., the legal/project owner of the hydropower plant and GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş. as the project consultant.

The project features two weirs. The first structure, known as the Erikli weir, is situated on Alcak Brook, a tributary of Karadere, at a riverbed elevation of 1,339 meters /13/. At this location, a sediment pool measuring 41 meters in length and 2.3 meters in width has been constructed along the riverbed. The second structure, the Akocak weir, is positioned on another branch of the Karadere River at an elevation of 1,328 meters, and includes a 41-meter-long and 4.3-meter-wide sediment pool. The powerhouse is placed on the Karadere River at an elevation of 570 meters.

Water collected at the Erikli weir is conveyed through a circular-section derivation tunnel, 3 meters in diameter and 3,250 meters in length, to the upstream section of the Akocak weir. From the Akocak weir, the flow is directed to a surge tank by means of a 6,150-meter transmission tunnel with a 3-meter cross-section. The penstock, connecting the surge tank to the powerhouse, extends 1,842 meters and has an average diameter of 1.82 meters.

Within the powerhouse, there are two vertical Pelton-type turbines, each rated at 42.09 MWm / 41.25 Mwe which has been checked through generation license/27/and provisional acceptances

/9/. The system is designed for a flow rate of 12.30 m³/sec and operates under a net head of 744 meters. The facility includes two generators, each with a capacity of 48.75 MVA. The installed capacity of the Akocak HEPP totals 84.18 MWm / 82.5 MWe. which has been checked through the generation license/27/, Electricity generated at the plant is delivered to the Arsin TM and Araklı (Karadere Havza) grid substations via a double-circuit, 2 × 477 MCM, 32-km-long, 154-kV transmission line /32/.

The project activity is located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey. The purpose of the project is to generate energy from the running waters of Karadere River. /27/, /13/.

Clean energy produced from the project activity will be supplied to Türkiye grid which will reduce equivalent amount of anthropogenic emissions emitted from the grid connected fossil fuel-based power plants or by the addition of new plants. The project has been commissioned on 30/06/2010, which has been verified through the Provisional acceptance certificate/09/.

The project activity is going to reduce an estimated amount of 117,598 tCO₂e of emission reductions annually and 1,175,979tCO₂e of emission reduction over the entire crediting period i.e. 01/07/2020 to 30/06/2030 (both days inclusive). The annual estimated electrical energy generation is 257,440 MWh according to the generation license and 2,574,400 MWh for overall crediting period As per section 3.8 of VCS Standard v.4.7/06/, The project start date of a non-AFOLU project is the date on which the project began generating GHG emission reductions or carbon dioxide removals. The date of provisional acceptance/09/ of Akocak Hydroelectric Power Plant as described in VCS PD/02/ is 30/06/2010 which can therefore be termed as start date for the project activity.

2 VALIDATION PROCESS

2.1 Method and Criteria

Earthood has been contracted for the validation of the renewal of crediting period of the project activity “Akocak Hydroelectric Power Plant” (VCS ID- 535), the PP of the project is Çanakçı HES Elektrik Üretim A.Ş. who is also the legal/project owner, and the project consultant is GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş. The project activity adheres with relevant requirements of VCS Standard, Version 4.7/06/. The project activity uses the ACM0002: Consolidated baseline methodology for grid-connected electricity generation from renewable sources v22.0/04/, which is classified as sectoral scope 1 “Energy industries (renewable - / non-renewable sources)”. The following were included in the validation of renewal of Crediting period:

- Contract with PP for the scope and appointment of validation team and technical review team.
- Completeness check of VCS PD/01/.

- Desk review of VCS PD/01/ and estimated GHG emission reduction calculation sheet/03/.
- Site inspection by validation team.
- Follow up interviews with representatives of Project Proponent and relevant stakeholders
- Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft validation report
- Independent technical review of the draft validation report and final/ revised documentation (e.g. VCS PD, corresponding estimated ER calculation sheet and evidence)
- Issuance of the final validation report.

In accordance with the VCS Validation and verification manual/08/, VVBs must confirm that the validation can be completed within the relevant validation deadline, relative to the project start date (i.e, the date the project starts generating emission reductions and removals).

The on-site visit/13/ for the project activity was conducted by the validation team on 05/11/2025 where the key responsibility of the team was to assess the project status which is to be in accordance with the VCS Requirements/06/07/08/. Key stakeholders were identified independently and interviewed in an unbiased manner (free from the influence of the PP).

Table 1: Validation of RCP Schedule

Key Milestones	Date
Kick-off meeting	03/11/2025
Desk Review	03/11/2025- 17/11/2025
Site Visit	05/11/2025
Draft Validation Report	27/11/2025

2.2 Document Review

A desk review was conducted by the validation team that included:

- a) A review of the data and information presented to assess its completeness.
- b) A review of the VCS PD/02/ and registered VCS PD /43/, estimated GHG emission reduction calculation sheet/03/, the applied methodology/04/ including applicable tool(s) and relevant laws regulations for the host country.

c) Supporting documents as provided by the Project proponent.

In addition, the validation team consulted third-party documents such as technical reports pertaining to the project design or design or basic condition, and technical data. A complete list of documents/evidence reviewed is included as Appendix 3.

2.3 Interviews

In accordance with para 4.1.11 of the VCS standard v4.7/06/, “A site visit that includes a visit to facilities and/or project areas shall be conducted at validation and project crediting period renewal validation”. The VVB has conducted an onsite visit on 05/11/2025 /13/ to check the implementation status of the project activity. The visit was conducted as a part of validating the project to check the technology employed in the hydropower plant, its location (Physical address), Monitoring plan (feasibility of monitoring arrangements described in PDD, QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures). During the Site visit, the representatives of the project proponent were interviewed on various aspects related to the implementation of the project activity. The questionnaires asked during the on-site audit has been discussed below:

- Introduction, scope and objective of work, roles and responsibilities, resources required, and timetable of the on-site audit including venue for closing meeting and any concerns from PP.
- Approval of project activity from Host Party and approval of participation of Project Proponent(s).
- Project boundary and emission sources included in the project boundary.
- All the details about the project activity which are mentioned in the VCS PD were cross-checked by discussion with the PP.

The table below describes the physical interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the project description and any supporting document.

S.No.	Name	Organization	Date	Topic	Team
1.	Deniz Yurtoğlu	Project Expert, GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş		Project implementations, start date as per the VCS requirements Available documentation	
2.	Muhammed Hilal Yıldırım	Plant Manager Çanakçı HES Elektrik Üretim A.Ş.			

3.	Hamdi Gürsoy	Electrical Engineer Çanakçı HES Elektrik Üretim A.Ş.	05/11/2025	Emission Reduction Ex-ante estimation Reliability, accuracy and assurance of monitoring plan and practices in operation Calibration procedure Monitoring and measuring system Data collection process Local stakeholder consultation Technical specifications QA/QC procedures, maintenance Practices. Sustainable Development Goals	Selen Cilasun Menteş
4.	Adem Tanyıldırım	Mechanical Technician (Local) Çanakçı HES Elektrik Üretim A.Ş.			
5.	Emirhan Furtun	Operator Çanakçı HES Elektrik Üretim A.Ş.			
6.	Ozan Özdemir	Electrical Technician Çanakçı HES Elektrik Üretim A.Ş.			
7.	Mehmet Salih Aksoy	Personnel (Local) Çanakçı HES Elektrik Üretim A.Ş.	05/11/2025	Feedback regarding the project, Grievance mechanism, Sustainable development Goals.	Selen Cilasun Menteş
8.	Volkan Bayrak	Operator (Local) Çanakçı HES Elektrik Üretim A.Ş.			
9.	Temel Aksoy	Mukhtar (Local Stakeholder)			

2.4 Site Visits

An on-site visit of the Hydro power plant facility was undertaken by the validation team on 05/11/2025/13/. The site visit was conducted to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the project design, implementation, plant operations, environmental impacts, stakeholders etc.

The details of the interviews conducted, and on-site activities undertaken have been described under section 2.3 above.

2.5 Resolution of Findings

This section represents the conclusions from the validation of the project activity. The results of the document review, site visit/ remote evaluations, and interviews are presented in this section. CARs, CLs and FARs are used to correct material inconsistencies discovered during validation of renewal of crediting period.

Corrective action requests (CARs) are issued where:

- i. Mistakes have been made with a direct influence on project results requiring adjustments of the VCS monitoring report.
- ii. Applicable methodological specific requirements have not been met.
- iii. There is a risk that emission reductions cannot be monitored or calculated.

A clarification requests (CL) maybe used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

- i. The actual project monitoring and reporting practices requires attention and/ or adjustment for the next consecutive verification period, or
- ii. An adjustment of the monitoring plan/02/ is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high-quality emissions reductions in the future, i.e., by deviations from standard procedures as defined by the monitoring plan. Consequently, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions. FARs does not relate to VCS requirements for registration.

CARs and CLs are to be resolved or closed out if the PP modifies the project description, rectifies the PD or provides adequate additional explanations or evidence that satisfies the concerns. If this is not completed, the project activity cannot be recommended for registration under VCS registry. A total of 6 findings were raised, where 04 CARs, 04 CLs and 00 FARs were raised during the validation. All the findings that are raised and communicated to Project Proponents during the validation are included in Appendix 5

2.5.1 Forward Action Requests

No Forward Action Requests (FARs) were raised during the validation.

3 VALIDATION FINDINGS

3.1 Project Details

The VCS project activity “Akocak Hydroelectric Power Plant” involves generation of clean electricity from hydroelectric power plant. The project activity is located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey, with a total installed capacity of 84.18 MWm / 82.5 MWe and is expected to generate 257,440 MWh annually /27/. The validation confirms with reasonable level of assurance that the project description as described in section 1.1 of VCS PD/02/ is accurate, complete and therefore provides a complete overview of the project activity. VCS 535project meets all applicable rules and requirements which are set out under the VCS Program including VCS Standard Version 4.7/06/ & VCS Program Guide Version 4.4/07/.

Item	Evidence gathering activities, evidence checked, and assessment conclusion					
Audit history		Audit type	Period	Program	Validation/verification body name	Number of years
		Validation	01-July-2010 – 30-June-2020 (1 st crediting period)	VCS	Bureau Veritas Certification Holding SAS	Ten years
		Verification	01-July-2010 – 31-July-2012 (1 st monitoring period of the 1 st CP)	VCS	RINA Services S.p.A (RINA)	Two years and one month
		Verification	01-August-2012 – 31-December-2015	VCS	RINA Services S.p.A (RINA)	Three years, 4 month, and 30 days

			(2 nd monitoring period of the 1 st CP)			
		Verification	01-January-2016 – 30-June-2020 (3 rd monitoring period of the 1 st CP)	VCS	RINA Services S.p.A (RINA)	Four years, 5 months, and 29 days
		Validation	01-July-2020 – 30-June-2030 (2 nd crediting period)	VCS	Earthood	Ten years
Sectoral scope	Sectoral scope applicable to the Project is: “Type-I: Renewable Energy Projects” Category of the Project is: “Category I.D: Grid connected renewable energy generation”					
AFOLU project category, if applicable	Not applicable					
Project activity type	Proposed project activity is categorized in the sectoral scope 1 “Energy Industry – Renewable /Non-renewable Sources” according to the UNFCCC definition					
General eligibility of the project to participate in the VCS Program	The project activity is a 82.5 MWe hydro power plant located in Türkiye, which has been verified through the site visit/13/, Feasibility Study report/16/ and provisional acceptance certificate/09/. The project is in a non-LDC /18/ (Least Developed Country, as designated by the United Nations) and is excluded under Table 2.1 of the VCS Standard version 4.7 /06/. However, the project has already been registered under the Verra registry and the scope of the project activity is Renewal of Crediting Period (RCP).					

	The project did not meet the original timeline for the Renewal of Crediting Period (RCP) submission as stipulated under VCS Standard v4.7, paragraph 3.9.8 (4) /6/, given that four years elapsed between the end of the previous crediting period (2021) and the current year (2025). This constituted a technical non-compliance with the original timeline. However, this non-compliance has been officially resolved /41/. The Project Proponent submitted a request for an exemption regarding the submission deadline of the Project Document (PD) for the renewal of the crediting period. The VCS Program (Verra) subsequently granted this exemption on 18 September 2025, thereby extending the new deadline for the RCP submission to 31 December 2025. This exemption document is publicly verifiable on the Verra Registry under the "VCS Other Documents" section of the project page. Consequently, the validation team confirms that the project is considered compliant with the renewal submission requirements as the validation process has been completed within the officially sanctioned extended deadline, confirming the project's eligibility for renewal submission. PP has applied CDM approved methodology, ACM0002 v22.0 /04/, which is found to be eligible under the VCS program as verified from the Verra website /37/. The capacity limit has been verified as per para 119 (a) of CDM PS for PA/38/, where the project is categorized as large-scale hence, found to be appropriate. The 82.5 Mwe hydro power plant is not a fragmented or a debundled component part of another larger project as it was cross verified during the on-site visit/13/. The scope of validation is the renewal of the crediting period, and the eligibility of the project activity has already been demonstrated during the registration of the project under VCS Standard.
AFOLU project eligibility, if applicable	Not applicable as the project activity involves generation of clean energy from operation of 82.5 MWe hydroelectric dam.
Transfer project eligibility, if applicable	Not applicable as the project activity is not a transfer project or a CPA seeking registration.
Project design	The Project activity is not a group project activity as it is located in single location. The location of the hydro power plant was verified during the on-site visit/13/ by the validation team and cross-verified with KML files/11/ provided by PP.

Project ownership	The project activity is developed, commissioned, operated and owned by Çanakçı HES Elektrik Üretim A.Ş. which has been verified from the generation license issued by the EMRA (Energy Market Regulatory Authority)/27/. GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş is the owner of the carbon credits generated which has been verified from the “Akocak Communication Agreement “ /50/. PPs shall be responsible for arranging for verification and issuance of the VCU's generated during the stipulated crediting period. The validation team has verified the details, and it is found to be acceptable.
Project start date	The start date of the Project activity is 30/06/2010, which is date of provisional acceptance of the power plant unit 2 /9/. The date has been verified using the provisional acceptance certificate /09/. The start date of the Project activity complies with the section 3.8 of the VCS Standard Version 4.7/06/.
Project crediting period	The length of the second (current) crediting period chosen by the PP is ten years, renewal twice in accordance with the para 3.8.1 of the VCS Standard version 3.8 /44/. The second crediting period of the project activity is from 01/07/2020 to 30/06/2030, which complies with the section 3.8 of the VCS Standard v3.8. The first crediting period was from 01/07/2010 to 30/06/2020. The scope of validation is the renewal of the crediting period, and the project has been registered under VCS Standard v3.8 /44/, where the project crediting period can be a maximum of ten years which may be renewed at most twice. Hence, the chosen crediting period is found to be appropriate.
Project scale	The scale of the project activity is ‘Projects’ in VCS, which is found to be in line with para 3.10.1 of the VCS Standard/06/, as the annual emission reduction is less than 300,000 tCO ₂ e per year.
Likelihood of achieving estimated GHG emission reduction or removals	The project activity is estimated to generate 117,598 tCO ₂ e emission reduction per year and 1,175,979 tCO ₂ e over ten years of crediting period. The estimated ERs has been verified through the ER sheet/03/ and is found to be appropriately calculated in line with the applied methodology. The estimation of the electricity generation has been taken from the generation license/27/, which is an official document from the EMRA and hence, found to be appropriate.
Technologies and measures implemented by the project	The project activity “Akocak Hydroelectric Power Plant” is operation of 82.5 MWe hydroelectric project based located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey which has been checked through the on-site visit/13/, provisional acceptance certificate/09/, and feasibility study report/16/. The project owned by Çanakçı HES Elektrik Üretim A.Ş. and

activity or activities	GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş will act as the Project Proponents. The Erikli river is diverted, and water is stored in a reservoir, which has been reviewed through the physical audit /13/. The Project employs two turbines of vertical pelton type, each 42.09 MWm/41.25 MWe. The design flow rate is 12.30 m3/sec. Net head is 744 meters. There are two generators, each 48.75 MVA. The installed capacity of Akocak HEPP is 84.18 MWm/82.5 MWe. The project activity is expected to supply a net electricity of 257,440 MWh per annum, which has been verified through generation license/27/, Single line diagram of project/19/ and provisional acceptance certificate/09/. The specifications above were cross checked from technical specification of turbines which have been presented in Feasibility Study Report/16/ submitted by the PP and through the on-site visit/13/.												
Implementation schedule of the project activity or activities	The construction of the project activity started on 01/12/2006 and was commissioned on 30/06/2010, which has been reviewed through the provisional acceptance certificate /09/ shared by the PP. The project is currently generating renewable electricity which was verified during the site visit /13/.												
Project location	The location of the Project activity is Türkiye. The project activity is hydroelectric power project, which is located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey as mentioned in the provisional acceptance certificate/09/, and feasibility study report/16/. This has also been verified during on-site visit/13/ and cross-verified with KML files/11/ provided by PP. Geographic coordinates provided and are found to be accurate and acceptable. <table><tr><td>Coordinate System</td><td>Erikli Weir</td><td>Akocak Weir</td><td>Powerhouse</td></tr><tr><td>Degrees, Minutes, Seconds (Latitude)</td><td>40° 36'23.8" N</td><td>40° 36'47.5" N</td><td>40° 40' 13" N</td></tr><tr><td>Degrees, Minutes, Seconds (Longitude)</td><td>39° 57' 5.4" E</td><td>39° 54' 54.9" E</td><td>39° 54' 12.9" E</td></tr></table>	Coordinate System	Erikli Weir	Akocak Weir	Powerhouse	Degrees, Minutes, Seconds (Latitude)	40° 36'23.8" N	40° 36'47.5" N	40° 40' 13" N	Degrees, Minutes, Seconds (Longitude)	39° 57' 5.4" E	39° 54' 54.9" E	39° 54' 12.9" E
Coordinate System	Erikli Weir	Akocak Weir	Powerhouse										
Degrees, Minutes, Seconds (Latitude)	40° 36'23.8" N	40° 36'47.5" N	40° 40' 13" N										
Degrees, Minutes, Seconds (Longitude)	39° 57' 5.4" E	39° 54' 54.9" E	39° 54' 12.9" E										

Conditions prior to project initiation	The project activity is a large-scale hydroelectric power plant supplying generated green electricity to the national grid of Türkiye. In the absence of the project activity the same amount of electricity would have been generated by a mix power plants connected to the Turkish grid which is dominated by fossil fuel-based power plants. It was found to be accordance with the applied methodology ACM0002: Grid-connected electricity generation from renewable sources, v22.0/04/.
Project compliance with applicable laws, statutes and other regulatory frameworks	The validation team has verified that there are no laws or regulations in Türkiye that restrict the use of Renewable Energy to generate electricity. The project is a voluntary effort by the project proponent.
Double counting and participation under other GHG programs	The Project is not registered with any other GHG scheme. Validation team has reviewed the websites of other GHG programs such as CDM /45/, GCC /46/, GS /47/ to verify the same. Declaration has also been submitted by the project proponent/12/ to verify the same.
No double claiming with emissions trading programs or binding emission limits	The Project is not claiming from any emission trading programs or has binding emission limits. Additionally, Türkiye does not have any such programme/scheme/ policy. Declaration has also been submitted by the Project Proponent/12/ to verify the same.
No double claiming with other forms of environmental credit	The Project is not claiming any other form of environmental credits. Additionally, Türkiye does not have any such programme/scheme/ policy of any other form of environmental credits. Declaration has also been submitted by the Project Proponent/12/ to verify the same.
Supply chain (Scope 3) emissions double claiming	The project activity is the implementation and operation of the hydro power plant. The project doesn't affect the footprint of any products that are part of a supply chain as specified in the VCS PD/02/ section 1.17.3.

Sustainable development contributions	The validation team has reviewed the sustainable development criteria set out in the VCS PD/02/. The project activity will contribute to SDG 7, SDG 8, and SDG 13 as specified in the VCS PD/02/. The project activity estimates to generate 257,440 MWh/year through the implementation of the plant contributing to SDG 7, which has been verified through the feasibility report/16/ and contribute to an average of 117,598 tCO₂e per year emission reduction claiming SDG 13, which has been verified through the ex-ante ER calculation sheet/03/. The project activity aims to provide employment and trainings for all due to the operation, contributing to SDG 8, which has been verified through the Social security records provided by the PP/21/.
Additional information relevant to the project	Further, there is no additional information applicable for the project activity that may have a bearing on the eligibility of the project, the reductions or removals, or the quantification of the project's reductions or removals.

3.2 Safeguards and Stakeholder Engagement

3.2.1 Stakeholder Engagement and Consultation

3.2.1.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	The local stakeholders identified mostly include villagers living in the vicinity of the project activity. The validation team reviewed the registered validation report/17/ provided by the PP, which states the nearby local people as stakeholders of the project activity. Local stakeholders are those who are directly affected by the project activities, impacting the local environment, social life, and economy. These stakeholders can be located within the boundaries of the village, district, state, or nation. Public participation was done as part of the validation process to gather feedback from all relevant stakeholders, providing detailed information about the project and its potential impacts. The stakeholders identified by the PP were verified

	from the previous validation report /17/ and interviews of local stakeholders during the on-site visit /13/.
Legal or customary tenure/access rights	It has been verified through generation license/27/ that Çanakçı HES Elektrik Üretim A.Ş. is the legal owner of the project activity who is responsible entity for development, commissioning and operation of the Akocak hydropower plant. The validation team has interviewed the local stakeholders/13/ in an unbiased fashion and confirms that there is minimal private land, no involuntary relocation or no conflicts with any stakeholders/40/.
Stakeholder diversity and changes over time	The project activity is the implementation and operation of the hydro power plant. The stakeholders identified are mostly nearby villagers. Due to the project type, no change in social, cultural or economic diversity of stakeholders is envisaged over time.
Expected changes in well-being	The project activity is the implementation and operation of the hydro power plant, which provides renewable energy to the grid of Türkiye, hence, reducing the GHG emission to the atmosphere, enhancing energy security and reduced reliance on fossil fuels. This has been reviewed through the on-site visit/13/. PP has provided the employment records/21/, which verified the employment generated during the construction and operation of the plant. Furthermore, the PP assures that the project would not have any negative impacts on stakeholders' well-being.
Location of stakeholders	The project activity is located on Karadere River, in Trabzon province, in East Black Sea Region of Turkey. The local stakeholders identified Erikli, Akocak and Kayaici (known as Gelber) villages living in the vicinity of the project activity. The project activity is in a remote location with no direct impact on the stakeholders.
Location of resources	The project activity is the implementation and operation of hydro power plant. It has been confirmed through on-site visit/13/ and feasibility report/16/ that water diverted from the river has been discharged to the same stream, and there is no impact on habitation and property of the local stakeholders. The minimum water flow in the river is being maintained is being checked using AGI records /30/. The project activity is in a remote location with no impact on the

stakeholders. In addition, there are no territories or resources owned by or to which stakeholders have customary access.

3.2.1.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder engagement process	The public participation meeting consisting of nearby villagers was conducted on October 27th, 2008 prior to project initiation , in Arakli District of Trabzon Province. An announcement containing the place and time of the meeting was published in the center and districts which was verified from previous validation report /17/. During the meeting the attendees were informed about the project activity and its impacts through a power point presentation which was verified from previous validation report /17/. The primary mode of interaction between the project owner and the stakeholder is through direct, face-to-face communication. Should any issues arise, stakeholders have unimpeded access to the individuals responsible to express their concerns or grievances which were verified during physical audit/13/. Furthermore, a dedicated grievance book is maintained at the power plant, which is readily available for use by all locals. All submitted grievances and their subsequent resolutions or outcomes are meticulously recorded within this logbook. There was no negative feedback in the logbook /14/ which was verified during physical audit /13/
Consultation outcome	The public participation meeting for the project was held at the project site, involving local stakeholders like villagers. The meeting aimed to explain the VCS project activity, gather feedback, and address any concerns. Based on the previous validation report /17/, the project received positive assessments from stakeholders. In addition, the physical audit conducted on November 5th, 2025, confirmed that no adverse feedback or concerns were recorded /13/.
Ongoing communication	No positive or negative feedback or concerns were raised during the public participation meeting. The grievance book/14/ has been

	checked by the VVB and it is confirmed that no feedback has been received during the previous crediting period. Also, During the on-site visit /13/, local stakeholders were interviewed and confirmed that they know about the grievance process and there are no negative feedback regarding the project.
Stakeholder input	No positive or negative input was received during the public participation meeting.

3.2.1.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Obtaining consent	The project activity “Akocak Hydroelectric Power Plant” is operation of 82.5 MWe hydroelectric project owned by Çanakçı HES Elektrik Üretim A.Ş. PP organized a public participation meeting from the concerned local stakeholders during the initial validation. Information regarding the operation of the project activity and its potential impacts was addressed to the local stakeholders, verified during the initial registration/17/. PP did not identify any IPs, LCs or customary rights holders as stakeholders during the meeting. In addition to this, no ongoing or unresolved conflicts between the PP and the stakeholders were found. During the on-site visit/13/, local stakeholders were interviewed and there are no complaints from the locals regarding the operation of the hydro power plant.
Outcome of FPIC discussion	PP did not identify any FPIC which was verified during initial registration /17/ During the on-site visit/13/, local stakeholders were interviewed and there are no complaints from the locals regarding the operation of the Akocak Hydroelectric Power Plant. No positive or negative feedback were received from the stakeholders regarding the project. The attendees of the public participation meeting expressed that they were satisfied with the implementation of the project and have therefore no concerns either to the Hydro power plant or to the Owner of the plant, which were verified from the previous validation report /17/ and physical audit /13/.

3.2.1.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Development process	PP has discussed the grievance procedure during the public participation meeting conducted and the local stakeholders are aware of the grievance procedure, which has been confirmed through the previous validation report/17/, interviews with the PP's representatives/13/ and interviews with the local stakeholders during the on-site visit. PP has a continuous-input Grievance Book/14/ to the Chief of Akocak Hydroelectric Power Plant to record the grievances received from the stakeholders related to the operation of the project activity. Or the grievances can be conveyed directly to the project manager or via mukhtar.
Grievance redress procedure	The grievances can be conveyed directly to the project manager or via mukhtar. This has been confirmed through interviews with the local stakeholders /13/. The grievance book /14/ placed at the site has been checked during the on-site visit/13/ and is found to be appropriate. PP ensures that the concerns raised will be resolved within a reasonable time frame. The procedure followed to address the concerns and grievance has been reviewed and is found to be appropriate.

3.2.1.5 Public Comments

In accordance with the requirement in clause 3.18.9 of the VCS standard, Version 4.7/06/ "All VCS projects are subject to a 30-day public comment period. The date on which the project is listed on the project pipeline marks the beginning of the project's 30-day public comment period".

As per para 3.18.14 of the VCS Standard, outside of the public comment period, the PP has provided a continuous-input Grievance Book/14/ to the Chief of the Akocak Hydroelectric Power Plant to record grievances received from stakeholders related to the project activity's operation. Grievances may also be conveyed directly to the project manager or submitted via the mukhtar. The availability and accessibility of these methods were verified during the physical audit /13/. The validation team has checked the Grievance Book/14/ and confirms that no feedback was received.

The scope of the project activity is renewal of crediting period (RCP). Therefore, no public comment period was conducted.

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA	NA

3.2.2 Risks to Local Stakeholders and the Environment

3.2.2.1 Management Experience

The Project Proponent demonstrates robust management experience and institutional capacity essential for the successful, long-term operation of the Akocak Hydropower Plant (HEPP) and the effective management of associated risks. The project owner ensures all personnel are qualified to minimize operational, environmental, and social risks through periodic and mandatory training programs. These comprehensive trainings include Emergency Plan Information, Fire Training and Drill, First Aid, HES General Training, Risk Assessment Training, Safe Vehicle Usage, Work Equipment Safe Use, Working at Height, and Waste Management Training, ensuring high standards of site safety and environmental compliance.

The project's management structure and personnel competence are further evidenced by the established VER Team, which clearly defines responsibilities for monitoring and compliance. Key roles, including the Plant Manager (overall compliance), the Electrical Engineer (daily data recording and monitoring), and the Control Operators/Electrical Maintenance Staff (day-to-day operation and high-voltage certified work), ensure technical expertise is fully integrated into the project's operation and monitoring plan.

This operational rigor is crucial to the project's monitoring procedures, which are designed to verify real and measurable emission reductions. The Power Plant Manager is specifically informed about VER concepts and mechanisms to oversee data collection. The established system, utilizing TEIAS and project owner records, multiple metering devices (including a spare device for comparison), and cross-verification via EPIAS data, ensures data integrity and redundancy. The Project Proponent thus possesses not only the technical expertise to operate the HEPP but also the systematic, well-trained personnel and verified data management procedures required to mitigate risks and meet all VCS monitoring and reporting obligations.

3.2.2.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Natural and human-induced risks to stakeholders' wellbeing	Validation team has been verified that there are no risk identified which was verified during physical audit/13/, there are no preventative measures taken.
Risks to stakeholder participation	Validation team has been verified there are no risk identified which was verified with land and forest permits/40/, there are no preventative measures taken.
Working conditions	Validation team has been verified that there is no risk identified, the employees have been given regular trainings about OHS, First Aid, causes of Occupational Accidents and Principles of Prevention, Safety and Health Signs, and The Use of Personal Protective Equipment, during physical audit/13/.
Safety of women and girls	No women was working on the site which has been verified employment records/21/ and physical audit /13/Since there are no risk identified, there are no preventative measures taken.
Safety of minority and marginalized groups, including children	Validation team has been verified that there are no risk identified which was verified during physical audit/13/, there are no preventative measures taken.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials, and chemical pesticides and fertilizers)	It has been confirmed through on-site visit/13/ and EIA Report/25/ that project handled all types of waste properly and it has no effect on air, noise, chemical pesticides and fertilizers. The discharge to water is managed using a septic tank verified from waster records/29/. Hazardous waste is stored in compliance with the relevant regulation and transferred through formal declaration procedures /29/. There were no complaints about air, noise or other pollutants from stakeholders /13/ Hence, no major risk has been identified.

3.2.3 Respect for Human Rights and Equity

3.2.3.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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Discrimination	Since the onset of the project activity, no employees have reported any form of discrimination. From the interviews with site personnel during the onsite audit/13/, Validation team confirms that there are no complaints on discrimination or any form of harassment from the stakeholders. Furthermore, Türkiye has ratified ILO convention 111 (Discrimination (Employment and Occupation) Convention, 1958), and PP ensures that the workers are socially secured by the PP and protected by employment agreements and no such activity is going to be happen in the future.
Sexual harassment	Since the onset of the project activity, no employees have reported any form of sexual harassment. From the interviews with site personnel during the onsite audit/13/, Validation team confirms that there are no complaints on any form of harassment from the stakeholders. Furthermore, Türkiye has ratified ILO convention 111 (Discrimination (Employment and Occupation) Convention, 1958), and PP ensures that the workers are socially secured by the PP and protected by employment agreements/21/ and no such activity is going to be happen in the future.
Equal pay for equal work	The project activity aligns with national policies related to gender equality, especially the principle of Equal Pay for Equal Work. Türkiye has ratified several key ILO conventions, including ILO Convention 100 and ILO Convention 111 which form the legal basis for non-discrimination in employment. This is further enforced by national legislation; the review of employment records /21/ confirms that the project activity has created employment for local people, and discrimination based on gender, including in remuneration, is illegal in Türkiye under the Labour Law No. 4857 /48/ and related regulations. All workers are socially secured and protected by comprehensive employment agreements, ensuring adherence to the principle of non-discrimination and fair compensation. The project aligns with national policies related to gender equality. From the interviews with site personnel during the onsite audit/13/, Validation team confirms that there are no complaints on equal pay for equal work.
Gender equity in labor and work	The project activity demonstrates a strong commitment to Gender Equity in Labor and Work, aligning with both national legislation and ratified international conventions. Türkiye has ratified key ILO conventions, notably ILO Convention 29, 100, 105, 111, 122, 138, 142, and 182 /49/ which mandates non-discrimination based on sex in employment and occupation. Furthermore, the project operates in compliance with all relevant labour standards: The employment records /21/, stakeholder interviews, and observations by the validation team /13/ confirmed that management's commitment to providing equal employment opportunities and fair treatment

	regardless of gender ensures that the project activity actively promotes a work environment conducive to gender equity. No such activities were found from the interviews with the PP and local stakeholders during onsite visits/13/ or through the direct observation by the validation team.
Forced labor	The project adheres strictly to national laws and international conventions prohibiting Forced Labor. Türkiye has ratified the fundamental International Labour Organization conventions related to these prohibitions, including ILO Convention 29, 100, 105, 111, 122, 138, 142, and 182/49/. All workers are socially secured by the relevant Public Office and protected by formal employment agreements/21/, ensuring compliance with labor standards. The validation team's review, which included interviews with the Project Participant and local stakeholders during onsite visits /13/, as well as observation, confirms that no evidence forced labor was found within the scope of the project activity
Child labor	Türkiye has ratified ILO convention 29, 100, 105, 111, 122, 138, 142, and 182 /49/. All the workers are socially secured by the PO and protected by employment agreements/21/. The project activity does not involve any child labor. No such activities were found from the interviews with the PP and local stakeholders during onsite visits/13/ or through the direct observation by the validation team.
Human trafficking	Türkiye has ratified ILO convention 29, 100, 105, 111, 122, 138, 142, and 182 /49/. All the workers are socially secured by the PO and protected by employment agreements/21/. The project activity does not involve any human trafficking. No such activities were found from the interviews with the PP and local stakeholders during onsite visits/13/ or through the direct observation by the validation team.

3.2.3.2 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified.	The project activity is the implementation and operation of a grid connected hydro power plant and follows the international human rights, the United Nations declaration on the rights of indigenous people and ILO conventions such as 100, 111, 122 and 142. 29, 100, 105, 111, 122, 138, 142, and 182 /49/. Further, the PP recognizes, respects, and promotes the protection of the rights of employees and

stakeholders and ensures quick action if any complaints are received.

3.2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified.	The project activity is the implementation and operation of a grid connected hydro power plant. The project has been implemented on the land owned by Çanakçı HES Elektrik Üretim A.Ş. and there is no dispute with the stakeholders regarding the land, which has been conformed through the on-site interviews conducted by the validation team. In addition to these, the project is in a remote location and there are no cultural heritage sites in the vicinity.

3.2.3.4 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified.	The project activity is the implementation and operation of a grid connected hydro power plant. The project has been implemented on the land owned by Çanakçı HES Elektrik Üretim A.Ş. and there are no dispute with the stakeholders regarding the land, which has been confirmed through the on-site interviews/13/ conducted by the validation team. It has also been confirmed that there are no villages in the vicinity of the project activity, and the land on which the project is implemented is the forest land before the execution of the project, which has been verified from land and forest permits/40/. The project activity is the implementation and operation of a grid connected hydro power plant. The project has been implemented on the land owned by Çanakçı HES Elektrik Üretim A.Ş. and there is no dispute with the stakeholders regarding the land, which has been conformed through the on-site interviews conducted by the validation team.

3.2.3.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Process used to design the	The project activity is the implementation and operation of a grid connected hydro power plant. The project has been implemented on the land owned by

benefit sharing plan	Çanakçı HES Elektrik Üretim A.Ş. Hence, there is no benefit sharing in the project activity. The section is not applicable.
Summary of the benefit sharing plan	Not applicable
Approval and dissemination of benefit sharing plan	Not applicable

3.2.4 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No negative impact identified on the local biodiversity and ecosystem. The validation team has observed from the on-site visit/13/ and have has also confirmed the same through the interviews with the site personnels. Further, the project received an EIA Positive Certificate on 17/12/2009 from the Ministry of Environment and Forestry General Directorate of Environmental Impact Assessment and Planning, Türkiye /26/.
Soil degradation and soil erosion	No risk has been identified. The validation team confirmed from the on-site visit/13/ that plantation activities have been undertaken adjacent to the areas of the power plant facility which will prevents any potential soil erosion. PP monitors soil permeability, water pressure formation and seepage from time to time. Further, the project received an EIA Positive Certificate on 17/12/2009 from the Ministry of Environment and Forestry General Directorate of Environmental Impact Assessment and Planning, Türkiye /26/.
Water consumption and stress	It has been confirmed through on-site visit/13/ and EIA Report/25/ that minimum discharge has been maintained in the river stream which was verified from AGI records/30/.The plant uses the water left from the channel to generate electricity, before conveying water to the Erikli riverbed therefore, it has no impact on water availability and does not create water stress. Also, the project plays a role in conveying water to the riverbed as a part of the irrigation channel. Hence, no risk has been identified.

Usage of fertilizers	The project activity involves the implantation and operation of grid connected hydro power plant and does not involve usage of fertilizer; Hence, no risk has been identified.
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3.2.4.1 Rare, Threatened, and Endangered species

Risk identified	Evidence gathering activities, evidence checked, and assessment conclusion
Species and habitat	No negative impact identified on biodiversity and ecosystem. The project activity involves generation of electricity from operation of hydro power plant. The validation team confirmed from the on-site visit/13/ that the possibility of threat to the rare and endangered species is of minimal probability.
Areas needed for habitat connectivity	No negative impact identified on biodiversity and ecosystem. The project activity involves generation of electricity from operation of small-scale hydro power plant. The validation team confirmed from the on-site visit/13/ that the possibility of threat to the rare and endangered species is of minimal probability.

3.2.4.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
N/A	N/A

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

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

3.2.4.3 Ecosystem conversion

The project activity involves the implantation and operation of grid connected hydro power plant and involves no ecosystem conversion. Hence, the section is not applicable.

Risks Identified	Evidence gathering activities and evidence checked
Ecosystem conversion	N/A

3.3 Application of Methodology

3.3.1 Title and Reference

As described in the VCS PD section 3.1, AMS-I.D.: Grid-connected electricity generation from renewable sources, v22.0/04/, has been applied to the Project Activity. The project uses an approved baseline and monitoring methodology, and the relevant tools prescribed therein. The validity of the versions of the applied methodology and tools were checked from CDM website.

The project has also referred to following CDM Tools:

- TOOL07 “Tool to calculate the emission factor for an electricity system” (Version 07.0)/22/
- TOOL11 “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” (Version 3.0.1) /33/
- TOOL01 “Tool for the demonstration and assessment of additionality”version (07) /39/

3.3.2 Applicability

All requirements for applicability of the applied methodology i.e., ACM0002 version 22/04/ are satisfied. Hence, the methodology is considered completely applicable for the new crediting period, and no request for a deviation in terms of the methodology's applicability is necessary. In the VCS PD/02/, all applicable conditions are fully and accurately included. The table below presents the assessments of the applicability conditions:.

Methodology ID	Applicability condition	Assessment and conclusion
ACM0002 para 5	This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant;	The Akocak HEPP project activity is the installation of a new hydro power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield plant).

	(b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plant(s)/unit(s); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s); or (f) Install a Greenfield power plant together with a grid-connected Greenfield pumped storage power plant. The greenfield power plant may be directly connected to the PSP or connected to the PSP through the grid.	This has been verified through the system usage agreement/32/, Generation license/27/ and provisional acceptance certificate/09/. Therefore, the project activity is a greenfield project. Hence, the criterion is met appropriately.
ACM0002 para7	In case the project activity involves the integration of a BESS, the methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic¹ or wind power plant(s)/unit(s);	This project does not include an integration of a BESS. This has been verified during on-site visit /13/ Hence, this condition is N/A. a) This project does not include an integration of a BESS. Hence, this condition is N/A. b) This project does not include integration a BESS together with implementing a capacity addition to (an) existing solar photovoltaic or wind power plant(s)/unit(s).

	(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); (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s). (e) Integrate a BESS together with a Greenfield power plant that is operating in coordination with a PSP. The BESS is located at site of the greenfield renewable power plant.	Hence, this condition is N/A. c) This project does not include integration of a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s). Hence, this condition is N/A. d) This project does not include integration of a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s). Hence, this condition is N/A. This project does not include integration of a BESS together with a Greenfield power plant that is operating in coordination with a PSP. Hence, this condition is N/A.
ACM0002 para 8	The methodology is applicable under the following conditions: (a) Hydro power plant/unit with or without reservoir, wind	(a) Akocak HEPP is a hydro power plant. The same has been verified from the provisional

	power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal 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; (c) 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	acceptance certificate /09/ and through on-site visit/13/. (b) The installed capacity of Akocak HEPP is 84.18 MWm/82.5 MWe. Project installed capacity has been increased from 82.46 MWm / 81 MWe to 84.18 MWm / 82.5 MWe on 06/11/2017. However, the annual generation which is 257,440 MWh has remained the same. So, there is no need to change the additionality of the project, this condition is N/A. The same has been cross verified by the validation team during the on-site visit/13/, provisional acceptance certificate /09/ and generation license /27/ furnished by PP. (c) This project does not include an integration of a BESS. Hence, this condition is N/A.
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	energy project activity (e.g. by referring to feasibility studies or investment decision documents); (d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies 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 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. (e) In case the project activity	The same has been cross verified by the validation team during the on-site visit/13/, (d) This project does not include an integration of a BESS. Hence, this condition is N/A. The same has been cross verified by the validation team during the on-site visit/13/, e) The project activity does not involve PSP. Hence, this condition is N/A. The same has been cross verified by the validation team during the on-site visit/13/,
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	involves PSP, the PSP shall utilize the electricity generated from the renewable energy power plant(s) that is operating in coordination with the PSP during pumping mode.	
ACM0002 para 9	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	The project is a hydro power plant. The project activity satisfies condition (c), as it results in a new reservoir and the power density of the project activity is 2,435.28 W/m² which is greater than 4 W/m². The same has been cross verified by the validation team during the on-site visit/13/, reservoir map/24/ and generation license /27/ .

	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 equation (8), is greater than 4 W/m²; (ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity; (iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m² shall be: a. Lower than or equal to 15 MW; and <i>b. Less than 10 per cent of the total installed capacity of integrated hydro power project.</i>	
ACM0002 para 10	In the case of integrated hydro power projects, project participants shall:	The project is not an integrated hydro power project. The same has been verified from the provisional acceptance certificate /09/

	(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 (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 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.	and through on-site visit/13/. Hence, this condition is N/A.
ACM0002 para 11	In the case of PSP, the project participants shall demonstrate in the PDD that	The project does not include a PSP. The same has been verified from the provisional

	the project is not using water which would have been used to generate electricity in the baseline.	acceptance certificate /09/ and through on-site visit/13/. Hence, this condition is N/A.
ACM0002 para 12	The methodology is not applicable to: (a) 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; (b) Biomass fired power plants/units.	a) The project does not involve switching from fossil fuel use to renewable energy at the site of the project activity. The same has been verified from the provisional acceptance certificate /09/ and through on-site visit/13/. b) The project is not a biomass fired power plant. The same has been verified from the provisional acceptance certificate /09/ and through on-site visit/13/.
ACM0002 para 13	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”.	The project activity does not include retrofits, rehabilitations, replacements, or capacity additions. The same has been verified from the provisional acceptance certificate /09/ and through on-site visit/13/. Hence, this condition is N/A.
ACM0002 para 14	In addition, the applicability conditions included in the	Given below.

	tools referred to below apply. ¹	
Para 03 of CDM Tool 07	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This project involves generating electricity from small scale hydro power plant where generated electricity is delivered to the grid and hereby displaces emissions which might have generated from the production of equivalent amount of power from fossil fuel thermal power plants which exists in the baseline scenario. This has been verified through the system usage agreement/32/, and generation license/27/. Therefore, the applicability criteria is found to be met by evaluating the amount of baseline emission by considering OM, BM and CM emission factors.
Para 04 of CDM Tool 07	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, the conditions specified in “Appendix 2: Procedures related to offgrid power generation” should be met. Namely, the total capacity of off-grid power	The project activity has chosen the option to calculate the emission factor for grid power plants only. The point has been assessed in detail under section 3.3.6 of the report. Thus, criterion is found to be met.

¹ The condition in “TOOL02: Combined tool to identify the baseline scenario and demonstrate additionality” that all potential alternative scenarios to the proposed project activity must be available options to project participants; does not apply to this methodology, as this methodology only refers to some steps of this tool.

	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.	
Para 05 of CDM Tool 07	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.	This project involves generating electricity from small scale hydro power plant located in Türkiye which is an Annex I country as verified from UNFCCC website/10/. However, the scope is the renewal of crediting period and project is already registered under VCS. Additionally, the applicability condition is with respect to the CDM project activity and the project is under VCS program Thus, the applicability criteria is found to be not applicable.
Para 06 of CDM Tool 07	Under this tool, the value applied to the CO2 emission factor of biofuels is zero.	This project involves generating electricity from small scale hydro power plant and does not involve emissions from biofuels. The generated electricity from the project activity is delivered to

		the national grid of Türkiye. Thus, the applicability criteria are found to be met.
TOOL01	The use of the “Tool for the demonstration and assessment of additionality” is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.	Tool for the demonstration and assessment of additionality is applied in this project since there is no new methodologies proposed. This has been verified from previous validation report /17/ Hence, this condition is N/A.
	Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.	Tool for the demonstration and assessment of additionality is applied in this project since there is no new methodologies proposed. This has been verified from previous validation report /17/ Hence, this condition is N/A.
Scope and Applicability of CDM Tool 11	This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 49 (a) of the modalities and procedures of the clean development mechanism. The tool consists of two steps. The first step provides an approach to evaluate	The scope of the project activity is renewal of crediting period. Therefore, the tool is applicable and has been applied by the PP to assess whether the current baseline is valid or invalid.

	whether the current baseline is still valid for the next crediting period. The second step provides an approach to update the baseline in case that the current baseline is not valid anymore for the next crediting period. The steps are elaborated in section 3.3.4 below of the report.	
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3.3.3 Project Boundary

Based on the Project Boundary requirements set forth in Section 7 of the current approved consolidated methodology ACM0002 Version 22.0, the spatial extent of the project boundary is defined to encompass the physical, geographical site of the renewable energy generation source (the project power plant). Crucially, the boundary also includes all power plants that are physically connected to the electricity system to which the CDM project power plant is connected, ensuring a comprehensive scope for baseline emission calculations. The project boundary of the project activity includes the hydro power plant, transformer substation, electricity meters, powerhouse, and the national grid of Türkiye as observed from the single line diagram/19/. The electricity generated by the project activity is supplied to national grid of Türkiye. The validation team was able to confirm that all the identified emission sources which are impacted by the project activity are addressed by the approved methodology ACM0002version 22/04/. Details on gases included in project boundary are given below:

Source		Gas	Included?	Justification/Explanation
Baseline	Electricity generation in baseline (Turkey's Grid)	CO ₂	Yes	Main emission source
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
		Other	No	N/A
Project	Emission from the reservoir of the proposed project	CO ₂	No	N/A
		CH ₄	No	Minor emission source (Power density greater than 10 W/m ²)
		N ₂ O	No	Minor emission source
		Other	No	N/A

Source		Gas	Included?	Justification/Explanation
	Auxiliary Diesel Generator	CO ₂	Yes	Neglected ²
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
		Other	No	N/A

3.3.4 Baseline Scenario

In accordance with the requirements for the determination of the baseline scenario outlined in Section 11 of the approved consolidated methodology ACM0002 Version 22.0, the baseline scenario for the project activity is defined as the electricity delivered to the grid by the project activity that would, in the absence of the project activity, have been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid, within the defined project boundary.

The project activity is a new 82.5 MWe hydropower plant commissioned as a distinct unit and does not impact the electricity generation potential for existing project and has a separate reservoir, intake, monitoring and Power Purchase Agreement to supply electricity to national grid of Türkiye.

The baseline scenario for the project activity is generation of same amount of electricity through operation of existing power plant connected to the national grid of Türkiye. This baseline scenario is correctly identified by the project proponent in the VCS PD/02/. The proportion of the generation through operational power plants and newly build power plants can be addressed by determining the Combined Margin of the grid in accordance with CDM Tool 7 version 07.0/22/.

The assessment of the validity of the current baseline and its update for the second crediting period is performed in accordance with the requirements stipulated in para 18 (g) of the approved methodology ACM0002 Version 22.0, by applying Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, Version 3.0.1.

Step 1: Assess the validity of the current baseline for the next crediting period

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The baseline scenario, defined as grid-connected electricity generation, remains valid and is demonstrated to be in full compliance with all relevant mandatory national and/or sectoral policies and regulations of the host country (Türkiye). This compliance has been verified through official

² ACM0002 Version 22.0.0 indicates that "...For all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected." (Page 15 paragraph 42).

documentation including the system usage agreement/32/, generation license/27/ and EIA positive certificate/26/.

Step 1.2: Assess the impact of circumstances

New circumstances in Turkey impact the grid's emission factor and, thus, on the project activity's current baseline emissions. Accordingly, the operating margin and build margin emission factors for the second crediting period have been updated in line with the latest version of the "Turkey's National Electric Grid Emission Factor" for 2022 published on 26/11/2024 /34/, which is the latest available data published by official sources.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

There is no change in the investment type and technology in the second crediting period which has been confirmed during physical audit/13/.

Step 1.4: Assessment of the validity of the data and parameters

The project has two main parameters for the calculation of emission reduction: Electricity generation and Emission factor, which is found to be appropriate as per the applied methodology. The emission factor is an ex-ante parameter and is not monitored during the first crediting period.

PP has updated the emission factor of the project during the second crediting period in line with the applied methodology and Tool 07. The project utilizes emission factor values obtained from the latest available "Turkey's National Electric Grid Emission Factor" published by Ministry of Energy and Resources in year 2022/34/, which utilizes Tool 07 to calculate the emission factor for the host country Türkiye and is the latest available at the time of validation and hence, is found to be appropriate.

Step 2: Update the current baseline and the data and parameters

As evident from the explanation provided above the baseline scenario remains unchanged. The operating margin and build margin emission factors for the second crediting period have been updated in line with the latest version of the "Turkey's National Electric Grid Emission Factor" for 2022, published on 26 November 2024 /34/ available at the time of PD submission for renewal. The PP has calculated the combined margin emission factor ($EF_{grid,CM,y}$) from these updated emission factors, which in turn is used to calculate the baseline emissions.

The validation team confirms that:

- (a) All the assumptions and data used by the PP are listed in the VCS PD/02/, including their references and sources.
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the VCS PD/02/.
- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable.

- (d) Relevant national and/ or sectoral policies and circumstances are considered and listed in the VCS PD/02/.
- (e) The approved baseline methodology/04/ has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

The baseline scenario identified by the PP was found to be in accordance with applied methodology and the registered PD/30/. Therefore, PP's decision to not make changes in the current baseline was found to be acceptable by the validation team.

3.3.5 Additionality

As per the section 3.9.8 of the VCS standard v4.7/06/, a full reassessment of additionality is not required when renewing the project crediting period unless otherwise specified in the methodology. However, regulatory surplus shall be demonstrated in accordance with the requirements set out in the VCS Program rules and the project description shall be updated accordingly.

The project activity is currently undergoing the validation of renewal of crediting period 1, therefore, the full reassessment of additionality is not required. However, PP has demonstrated the regulatory surplus by confirming that the implementation of the project activity is a voluntary initiative as taken by the project proponent and is not mandatory or a legal requirement.

3.3.6 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

The GHG emissions reduction calculations are transparently documented and appropriate assumptions regarding the expected amount of electricity generated have been used to forecast emission reductions for the project activity. In according to the applied methodology ACM0002 v22/04/ the formulae applied in the VCS PD/02/ for the emission reductions (ER_y) calculation by the project activity is the difference between the baseline emissions (BE_y) and the project emissions (PE_y) and the leakage emissions (LE_y), which is expressed as follows:

Emission Reductions:

As per para 72 of the applied methodology,

$$ER_y = BE_y - PE_y$$

According to para 57 of the applied methodology/04/, the Baseline emissions are calculated as:

$$BE_y = EG_{PJ,y} * EF_{grid, CM,y}$$

BE_y Baseline Emissions in year y (tCO_2).

$EG_{PJ, y}$ Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh).

$EF_{grid,CM,y}$ Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the TOOL07 “Tool to calculate the emission factor for an electricity system” (tCO₂/MWh). The value for the combined margin is 0.4568 tCO₂e/MWh.

Project emissions:

As per para 40 of the applied methodology, “For most renewable energy project activities, $PE_y = 0$. However, for the following categories of project activities, project emissions have to be considered following the procedure described in the most recent version of “ACM0002: Grid-connected electricity generation from renewable sources”:

- (a) Emissions related to the operation of geothermal power plants (e.g. non condensable gases, electricity/fossil fuel consumption);
- (b) Emissions from water reservoirs of hydro power plants.”

Hence, as per para 40 of ACM0002/04/,

$$PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y} + PE_{BESS,y} + PE_{PSP,y}$$

Where,

PE_y = Project emissions in year y (tCO₂e/yr)

$PE_{FF,y}$ = Project emissions from fossil fuel consumption in year y (tCO₂/yr)

$PE_{GP,y}$ = Project emissions from the operation of dry, flash steam or binary geothermal power plants in year y (t CO₂e/yr)

$PE_{HP,y}$ = Project emissions from water reservoirs of hydro power 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)

$PE_{PSP,y}$ = Project emissions from utilizing electricity from the grid for pumping operation of PSP in excess to the production of the renewable power plant operating in coordination with the PSP (t CO₂e/yr)

Since, the project activity is the implementation and operation of the greenfield hydro power plant. $PE_{FF,y}$, $PE_{GP,y}$, $PE_{BESS,y}$ and $PE_{PSP,y}$ is considered as zero, which is found to be appropriate.

Emissions from water reservoirs of hydro power plants and pumped storage projects ($PE_{HP,y}$):

As per para 46 of ACM0002/04/, “The power density (PD) of the project activity is calculated as follows:”

$$PD = \frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where,

PD = Power density of the project activity (W/m²)

Cap_{PJ} = Installed capacity of the hydro power plant after the implementation of the project activity (W)

Cap_{BL} = Installed capacity of the hydro power plant before the implementation of the project activity (W).
For new hydro power plants, this value is zero

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 (m²)

A_{BL} = Area of the reservoir 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.

The installed capacity of the power plant is 82.5 MWe, which has been verified through the generation license/27/, and provisional acceptance certificate/09/. The value of Cap_{BL} and A_{BL} is considered as 0, since this reservoir is not a power-generating reservoir, which has been verified through the Reservoir Area Map/24/ and feasibility report/16/.

The value of the A_{PJ} has been taken as 33,877.016 m², which has been verified through reservoir area map/24/and on-site audit/13/, and hence, found to be appropriate.

Therefore, the value of the power density comes out to be 2,435.28 W/m². Hence, as per para 9 of the ACM0002/04/, $PE_{HP,y}$ is equal to zero.

Leakage emissions:

The leakage emission for the project activity is considered zero, as there are no activities which will lead to emission, and it is in accordance with the applied methodology ACM0002, v22/04/.

Therefore, $LE_y = 0$

Emission reductions:

The baseline emissions for the project activity are calculated as:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Where,

$$EG_{PJ,y} = EG_{PJ,facility,y} = 257,440 \text{ MWh/year}$$

$$EF_{\text{grid,CM,y}} = EF_{\text{CM,y}} = 0.4568 \text{ tCO}_2\text{e/MWh}$$

$$\text{Hence; BEy} = 257,440 \text{ MWh/year} * 0.4568 = 117,598 \text{ tCO}_2\text{e/year}$$

$$\text{BEy} = 117,598 \text{ tCO}_2\text{e/year}$$

$$\text{ERy} = \text{BEy} - \text{PEy} - \text{LEy}$$

$$\text{ERy} = 117,598 - 0 - 0$$

$$\text{ERy} = 117,598 \text{ tCO}_2\text{e/ year}$$

Vintage period	Estimated baseline emissions (tCO ₂ e)	Estimated project emissions (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated reduction VCU (tCO ₂ e)	Estimated removal VCU (tCO ₂ e)	Estimated total VCUs (tCO ₂ e)
01-July-2020 to 31-Dec-2020	59,282	0	0	59,282	59,282	59,282
01-Jan-2021 to 31-Dec-2021	117,598	0	0	117,598	117,598	117,598
01-Jan-2022 to 31-Dec-2022	117,598	0	0	117,598	117,598	117,598
01-Jan-2023 to 31-Dec-2023	117,598	0	0	117,598	117,598	117,598
01-Jan-2024 to 31-Dec-2024	117,598	0	0	117,598	117,598	117,598
01-Jan-2025 to 31-Dec-2025	117,598	0	0	117,598	117,598	117,598
01-Jan-2026 to 31-Dec-2026	117,598	0	0	117,598	117,598	117,598

01-Jan-2027 to 31-Dec-2027	117,598	0	0	117,598	117,598	117,598
01-Jan-2028 to 31-Dec-2028	117,598	0	0	117,598	117,598	117,598
01-Jan-2029 to 31-Dec-2029	117,598	0	0	117,598	117,598	117,598
01-Jan-2030 to 30-June-2030	58,315	0	0	58,315	58,315	58,315
Total	1,175,979	0	0	1,175,979	1,175,979	1,175,979

The average annual emission reduction is 117,598 tCO₂e per year over a 10 year renewal crediting period.

The Validation team confirms:

- All assumptions and data used by the Project Proponents are listed in the PD/02/, including their references and sources;
- All documentation used by Project Proponents as the basis for assumptions and source of data is correctly quoted and interpreted in the PD;
- All values used in the PD are considered reasonable in the context of the proposed project activity;
- The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PD.

3.3.7 Methodology Deviations

The project activity has used approved methodology, ACM0002 version 22.0/04/ and all the applicability conditions and methodological requirements have been completely followed by the PP. The validation team has confirmed that the Project activity has not been subjected to any methodology deviations.

3.3.8 Monitoring Plan

The project activity applies to the monitoring methodology ACM0002, Version 22/04/ for monitoring of emission reduction which is valid for submission. The project activity meets all the requirements as stated in the methodology and provided all the parameters in the revised version of the VCS PD/02/ in terms of ex- ante and ex-post in the respective section of the PD.

Data and parameters fixed Ex-ante:

Means of validation	Parameter	Value applied	Means of assessment
	EF_{grid,CM,y} (Combined margin CO ₂ emission factor for grid connected power generation in year y)	0.4568 tCO ₂ e/MWh	The value for Combined margin emission factor is taken as 0.4568 tCO₂e/MWh. This has been calculated using equation 16 of CDM TOOL 07 Version 7.0/22/. The value of operating margin and Build margin has been taken directly through the Turkish Emission factor datasheet, published by Ministry of Energy and Natural Resources, published on 26 November 2024/34/. The approach taken is in accordance with the CDM TOOL 07 and is found acceptable by the validation team. $EF_{grid,OM,y} = 0.7108 \text{ tCO}_2\text{e/MWh}$ $EF_{grid,BM,y} = 0.3721 \text{ tCO}_2\text{e/MWh}$ As per equation 16 of CDM TOOL 07 Version 7.0/22/: $EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$ $EF_{grid,CM,y} = 0.7108 \times 0.25 + 0.3721 \times 0.75$

			= 0.4568 tCO ₂ e/MWh
	CapBL (Installed capacity of the hydro power plant before the implementation of the project activity)	0	The baseline installed capacity has been correctly determined as zero, in accordance with the applied methodology (ACM0002, version 22.0), which mandates this value for new hydro power facilities. The validation team confirmed that the zero value is consistent with the project activity being a new power plant construction, thus ensuring the accurate calculation of Power Density.
	ABL (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). For new reservoirs, this value is zero.)	0	The data for the baseline reservoir area, has been appropriately determined as zero, in accordance with the applied methodology (ACM0002, version 22.0), which specifies this value for new reservoirs. Validation team confirmed that this applied value is consistent with the project activity, confirming that the project involves the creation of a new reservoir, and thus ensuring the correct input for the Power Density calculation.
Findings	None		

Conclusion

The validation team has verified the values fixed, values are taken from the reliable sources (all the sources are mentioned in Appendix 3 of the report and therefore it has been accepted by the validation team.

Data and parameter monitored:

To monitor the emission reduction of the project activity, the net electricity exported by the project activity to the grid is multiplied with the grid emission factor, to further evaluate the emission reduction achieved (ER_y). Therefore, the monitoring plan includes monitoring of following parameters:

Paramet er	Monito ring freque ncy	Means of assessment								
EGfacility,y	Contin uous	The value of the parameter will be continuously monitored and monthly reported through the electricity meters (main and spare meters). The value of the parameter is calculated on the by subtracting the net export with the net import by the project activity. The electricity meters of power plant has been located at the project site. Four bi-directional energy meters of accuracy class 0.5S are installed at the site namely two main meters and two spare meters which are going to be calibrated once every ten years by the representatives of TEIAS (Turkish Electricity Transmission Corporation) in accordance with Article 9 of the MEASUREMENT AND MEASURING INSTRUMENTS INSPECTION REGULATION/35/. The specifications of the energy meters are given below which has been verified from the meter replacement certificate/28/ and during on-site visit /13/ and is found to be appropriate. The source of data for the parameter is EPIAS Records/31/,and will be cross-checked using invoice and TEIAS protocols/36/.								
		Turkish regulations mandate a 10-year calibration frequency. The old meters' first index protocol date was 27/05/2010 as per initial registration /17/. They were replaced on 13/08/2020, in line with the required ten-year interval which has been verified from Meter Replacement Certificate/28/.								
		Old meters details are given below: <table><tr><th>Properties</th><th>Main Meter1</th><th>Spare Meter1</th><th>Main Meter2</th><th>Spare Meter2</th></tr><tr><td>Brand</td><td>ACTARIS</td><td>ACTARIS</td><td>ACTARIS</td><td>ACTARIS</td></tr></table>	Properties	Main Meter1	Spare Meter1	Main Meter2	Spare Meter2	Brand	ACTARIS	ACTARIS
Properties	Main Meter1	Spare Meter1	Main Meter2	Spare Meter2						
Brand	ACTARIS	ACTARIS	ACTARIS	ACTARIS						

		Type	SL761A071	SL761A071	SL761A071	SL761A071
		Class	0.5S	0.5S	0.5S	0.5S
		Serial No	53064405	53064406	53064407	53064408
		New meter details are given below:				
		Properties	Main Meter1	Spare Meter1	Main Meter2	Spare Meter2
		Brand	EMH	EMH	EMH	EMH
		Type	LZQJ-XC	LZQJ-XC	LZQJ-XC	LZQJ-XC
		Class	0.5S	0.5S	0.5S	0.5S
		Serial No	9674570	9674571	9674572	9674573
		Installation Date (meter change date)	13/08/2020	13/08/2020	13/08/2020	13/08/2020
		Test dates	25/03/2022	25/03/2022	25/03/2022	25/03/2022
			20/03/2024	20/03/2024	20/03/2024	20/03/2024
		Estimated electricity generation values are given below:				
		Years		Estimated Electricity Generation (MWh)		
		2020		129,778		
		2021		257,440		
		2022		257,440		
		2023		257,440		

		2024	257,440
		2025	257,440
		2026	257,440
		2027	257,440
		2028	257,440
		2029	257,440
		2023	127,662
		ANNUAL AVERAGE	257,440
		TOTAL CREDITING PERIOD	2,574,400
		As per the VVB’s opinion, the monitoring plan for this parameter stands justified and correct when cross-checked against provisions in the applied methodology /04/.	
Cap _{PI}	Once at the beginning of each crediting period	This parameter represents the installed capacity of the specific hydro power plant following the implementation of the project activity. The unit for this data is W. This data is monitored yearly and is primarily used to understand the necessity of calculating project emissions according to the applied methodology, particularly if capacity thresholds might trigger the calculation of reservoir emissions. The value applied for this project is fixed at 82,500,000 W. The data source is the Project site itself, and the value is confirmed through the Generation License /27/ issued for the facility. Since this is a fixed, license-confirmed value, no specific monitoring equipment or detailed QA/QC procedures beyond verification against the official license are required. The validation team has verified that the fixed capacity value aligns with the project’s Generation License /27/ and has accepted its use for determining the project emission calculation requirement.	

		As per the VVB's opinion, the monitoring plan for this parameter stands justified and correct when cross-checked against provisions in the applied methodology /04/.
APJ	Once at the beginning of each crediting period	This parameter represents the maximum surface area of the reservoir created or modified by the project activity when the reservoir is at its highest operational level (full). The unit for this data is m2. This area is monitored yearly and is primarily used to understand the necessity of calculating project emissions (specifically reservoir emissions) according to the applied methodology, based on established thresholds. The data is sourced from the Project site and is determined by topographical surveys or maps. The maximum area applied in the calculations is 33,877.016 m2 (Erikli Weir), as documented in the Akocak HEPP Reservoir map /24/ The maximum area, which is given in the Reservoir Map, is considered in calculations, and annual measurements are not expected to be higher than this baseline value. The validation team has verified that the maximum area value is derived from the official Reservoir Map and has accepted its use for determining the project emission calculation requirement. As per the VVB's opinion, the monitoring plan for this parameter stands justified and correct when cross-checked against provisions in the applied methodology /04/.

Therefore, all the parameters mentioned in the revised VCS PD/02/ are found to be appropriate and in line with the applied methodology/04/. Hence, accepted by the validation team.

The validation team confirms that:

- All the values used from official sources and the authenticity of sources has been verified by the validation team and confirms that all relevant parameters to calculate the GHG emissions reductions of the project have been sufficiently considered and the value of the ex-ante fixed parameter used for emission reduction calculation i.e. grid emission factor has been determined conservatively and the estimation of ex-post parameters are reasonable.
- The validation team considers that the monitoring plan has complied with the requirements in the approved methodology/04/. The monitoring plan has been found to be in compliance with the requirements of the applied methodology. The monitoring plan will give opportunity for real measurements of achieved emission reductions.

The validation team considers that monitoring arrangements described in the monitoring plan is feasible within the project design and the PP will be capable to implement the monitoring plan.

3.4 Non-Permanence Risk Analysis

It is not an AFOLU project activity, hence it is not applicable.

4 VALIDATION OPINION

4.1 Validation Summary

Earthood Services Limited (Earthood) performed the validation of the emission reductions for the VCS project activity “Akocak Hydroelectric Power Plant” (VCS ID-535) for the second crediting period 01/07/2020 to 30/06/2030. GTE Karbon Sürdürülebilir Enerji Eğitim Danışmanlık Ve Ticaret A.Ş. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. It is our responsibility as VVB to express an independent validation statement on the reported GHG emission reductions from the project activity.

Earthood commenced the validation based on the baseline and monitoring methodologies ACM0002 version 22.0 /04/, the monitoring plan contained in the PD /02/ and VCS Program Guidelines version 4.4 /07/ as per the process described under Section 2 of this report. This validation was carried out using a risk-based approach. 03 Corrective Action Requests (CAR), 03 Clarification Requests (CL) and no Forward Action Requests (FAR) were raised and successfully closed during the validation.

The VVB has carried out this validation with a reasonable level of assurance as stated in section 1.3 above. Further, the verification of the GHG statement was conducted in accordance with ISO 14064-3.

4.2 Validation Conclusion

Earthood has performed the validation by obtaining evidence, conducting a comprehensive site visit, and requesting additional information. The Project Proponent (PP) has undertaken a detailed calculation of estimated emission reductions in accordance with the applied methodology ACM0002 version 22.0 /04/. The provided explanations by the PP are deemed necessary by Earthood to give a strong level of assurance that the projected GHG emissions reductions are not only attainable but will, in fact, be achieved. This is exemplified by the commitments to high standards of accuracy and integrity shown throughout the validation process.

As a result of the validation, the validation team confirms that:

- The project fulfils criteria of VCS standard Version 4.7/06/.
- The project is in line with all relevant VCS requirement.
- The project additionality is sufficiently justified in the VCS PD/02/.
- The monitoring plan is transparent, adequate and in line with applied baseline and monitoring methodology of ACM002 version 22.0/04/.
- The calculation of the emission reductions from the project activity is carried out in a transparent and conservative manner, so that the calculated emission reductions of 1,175,979 tCO₂e are most likely to be achieved within the 10-year crediting period .

No restrictions or uncertainties were identified related to the validation.

Crediting period: From 01-July-2020 to 30-June-2030

Validated estimated GHG emission reductions and carbon dioxide removals for the project crediting period:

Vintage period	Estimated baseline emissions (tCO ₂ e)	Estimated project emissions (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated reduction VCU (tCO ₂ e)	Estimated removal VCU (tCO ₂ e)	Estimated total VCUs (tCO ₂ e)
01-July-2020 to 31-Dec-2020	59,282	0	0	59,282	0	59,282
01-Jan-2021 to 31-Dec-2021	117,598	0	0	117,598	0	117,598
01-Jan-2022 to 31-Dec-2022	117,598	0	0	117,598	0	117,598
01-Jan-2023 to 31-Dec-2023	117,598	0	0	117,598	0	117,598
01-Jan-2024 to 31-Dec-2024	117,598	0	0	117,598	0	117,598
01-Jan-2025 to 31-Dec-2025	117,598	0	0	117,598	0	117,598
01-Jan-2026 to 31-Dec-2026	117,598	0	0	117,598	0	117,598
01-Jan-2027 to 31-Dec-2027	117,598	0	0	117,598	0	117,598

01-Jan-2028 to 31-Dec-2028	117,598	0	0	117,598	0	117,598
01-Jan-2029 to 31-Dec-2029	117,598	0	0	117,598	0	117,598
01-Jan-2030 to 30-June-2030	58,315	0	0	58,315	0	58,315
Total	1,175,979	0	0	1,175,979	0	1,175,979

Approved By:



Kaviraj Singh

Managing Director

Date: 24/06/2026

Earthood Services Limited

Place: Gurgaon, Haryana

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

There is no commercially sensitive information included in the project. Hence, this section is not applicable.

Section	Information	Justification	Assessment method and conclusion
N/A	N/A	N/A	N/A

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO2	Carbon di oxide
CP	Crediting Period
DR	Desk Review
EB	Executive Board
ER	External Resource
EIA	Environmental Impact Assessment
Earthood	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GP	Grouped Project Activity
MR	Monitoring Report
PAI	Project Activity Instance
PD	Project Description
PP	Project Proponent
tCO2e	Tonnes of Carbon di oxide equivalent
TA	Technical Area
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Units
VVB	Validation and Verification Body
OM	Operating Margin
BM	Build Margin
CM	Combined Margin
EF	Emission Factor

APPENDIX 3: DOCUMENT REFERRED

S.No.	Title of Document	Version	Date
1.	Initial VCS PD	V01	02-October-2025
2.	Final VCS PD	v09	22-May-2026
3.	Estimated ER sheet	V03	17-November-2025
4.	ACM0002: Grid-connected electricity generation from renewable sources	22.0	-
5.	VCS Project ID- https://registry.terra.org/app/projectDetail/VCS/535	-	-
6.	VCS Standard	4.7	16-April-2024
7.	VCS Program Guide	4.4	29-August-2023
8.	VCS Validation and verification manual	3.2	19-October-2016
9.	Provisional Acceptance & Commissioning for Unit 1 Provisional Acceptance & Commissioning for Unit 2	-	29-July-2010 30-June-2010
10.	https://unfccc.int/node/61221	-	-
11.	Geographic location: google earth KML File	-	-
12.	Declaration/ confirmation by PP that the project activity will not seek credit under any other program and confirming that PP will own the Verified emission reductions	-	05-November-2025
13.	On- Site Visit	-	05-November-2025
14.	Grievance Register /logbook	-	-
15.	VCS Program Definitions	4.5	16-April-2024
16.	Feasibility Study Report	-	April 2018
17.	Registered Validation report	-	26-July-2010
18.	https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc_list.pdf	-	-
19.	Single Line Diagram of power plants	-	-
20.	Health & Safety Training Records	-	-
21.	Employment Records, Social security records	-	-
22.	Tool 07: Tool to calculate the emission factor for an electricity system	Version 07.0	-
23.	Registration and Issuance Process	Version 4.5	16-April-2024
24.	Reservoir Area Map	-	-
25.	Environmental Impact Assessment (EIA) Report	-	October 2006 May 2007
26.	EIA Positive Certificate EIA not required decisions for additional capacity	-	17-October-2016 18-September-2009
27.	1.Generation License 2. License Amendment 1 3.License Amendment 2	-	01-January-2016 24-December-2015 06-November-2017
28.	Meter Replacement Certificate	-	13-August-2020
29.	Waste Records	-	-
30.	AGI records	-	-

31.	EPIAS Records	-	-
32.	System Usage agreement	-	28-July-2006 05-November-2009 19-February-2021
33.	Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period	V 3.0.1	02-March-2012
34.	Turkey's National Electric Grid Emission Factor for 2022	-	26-November-2024
35.	MEASUREMENT AND MEASURING INSTRUMENTS INSPECTION REGULATION	-	-
36.	TEIAS Protocols	-	-
37.	Verra website: https://registry.verra.org/	-	-
38.	CDM PS for PA	v3.0	
39.	Tool 01 Tool for the demonstration and assessment of additionality	V07	-
40.	Forest Land Use Permits	-	13-November-2006 06-December-2006 24-April-2007 20-June-2007 31-March-2008
41.	Exemption letter	-	18-September-2025
42.	VCS PD template	4.4	-
43.	Registered PD	03	20-July-2010
44.	VCS Standard version 3.8	version 3.8	-
45.	CDM web page https://cdm.unfccc.int/Projects/index.html	-	Latest accessed: 12 December 2025
46.	GCC web page https://globalcarboncouncil.com/	-	Latest accessed: 12 December 2025
47.	GS webpage https://registry.goldstandard.org/projects?q=&page=1	-	Latest accessed: 12 December 2025
48.	Labour Law: https://www5.tbmm.gov.tr/tutanaklar/KANUNLAR_KARARLAR/kanuntbmmc087/kanuntbmmc087/kanuntbmmc08704857.pdf	-	Latest accessed: 12 December 2025
49.	ILO: https://www.ilo.org/regions-and-countries/europe-and-central-asia/turkiye/conventions-ratified-turkiye	-	Latest accessed: 12 December 2025
50.	Akocak Communication Agreement	-	18-March-2021

APPENDIX 4: COMPETENCE STATEMENT

Competence Statement			
Name	Selen Cilasun Menteş		
Education	MSc (Bioengineering) BSc (Bioengineering)		
Experience	2+ Years		
Field	Climate Change & Environment, Wastes		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (Türkey)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.1, TA 1.2 & TA 13.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	15/10/2025
Approved by	Deepika Mahala (Technical Manager)	Date	15/10/2025

Competence Statement			
Name	Divij Varshney		
Education	M. Tech. Renewable energy systems B.Tech. Electrical Engineering		
Experience	3.5 years		
Field	Climate Change & Environment / Industry		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Local expert	Yes (India)		
Financial Expert	NO		
Technical Reviewer	Yes		
TA Expert (X.X)	Yes (1.2 &3.1)		
Reviewed by	Shifali Guleria, Quality Manager	Date	04/04/2024
Approved by	Deepika Mahala, Technical Manager	Date	04/04/2024

APPENDIX 5: FINDINGS

Table 1. Remaining FAR from validation and/or previous verification

There is no FAR from previous stages.

Table 2. CL from this validation

CL ID	01	Section no.	PD	Date : 04/11/2025
Description of CL				
a) Latest generation license date is missing in Table 1 of PD. b) Please recheck table in Section 2.2.2, explanation in "Mitigation or preventative measure(s) taken" column is missing. c) Please also recheck explanations in Section 2.4 of PD.				
Project participant response				Date : 07/11/2025
a) <i>The date of latest amendment in the generation license has been included to the Table 1 of PD.</i> b) <i>An explanation has been included to the table in Section 2.2.2.</i> c) <i>The explanation in Section 2.4 of PD has been rechecked.</i>				
Documentation provided by project participant				
"VCS PD 535 07112025_v2.docx"				
VVB assessment				Date: 17/11/2025
a) Missing date has been included in Table-1. Hence, closed . b) Explanation added table in Section 2.2.2. Closed . c) The statement 'There is no water consumption in this project activity' does not seem reasonable. Please recheck the explanation.				
Project participant response				Date : 17/11/2025
c) The statement has been revised.				
Documentation provided by project participant				
"VCS PD 535 17112025_v3.docx"				
VVB assessment				Date : 17/11/2025
c) It has been corrected. Closed .				

CL ID	02	Section no.	PD	Date : 04/11/2025
Description of CL				
There is a discrepancy regarding the capacity increase. Section 1.1 states that "the project installed capacity has been increased from 82.46 MWm / 81 MWe to 84.18 MWm / 82.5 MWe on 06/11/2017." However, other parts of the PD, such as Section 3.2, state that "(b) Since there are no capacity additions, this condition is N/A." Please review the entire PD and correct this inconsistency accordingly.				
Project participant response				Date : 07/11/2025

The project activity has been commissioned as 84.18 MWm / 82.5 MWe on 30/06/2010. Only the generation license has been amended accordingly. There are no capacity addition different from during the start date of project activity.	
Documentation provided by project participant	
"VCS PD 535 07112025_v2.docx"	
VVB assessment	Date: 17/11/2025
The explanation provided in the response row is not reflected in the relevant sections of the PD.	
Project participant response	Date : 17/11/2025
The explanation in Section 3.2 has been revised accordingly, and made consistent with the Section 1.1.	
Documentation provided by project participant	
"VCS PD 535 17112025_v3.docx"	
VVB assessment	Date: 17/11/2025
Explanation has been included. Closed.	

CL ID	03	Section no.	Section1.6	Date : 04/11/2025
Description of CL				
Title of project participant is missing in Section 1.6 of PD.				
Project participant response				Date : 07/11/2025
It has been included.				
Documentation provided by project participant				
"VCS PD 535 07112025_v2.docx"				
VVB assessment				Date: 17/11/2025
Title of project participant has been included in Section 1.6 of PD. Closed.				

CL ID	04	Section no.	-	Date : 04/06/2026
Description of CL				
Following observations have been made during PRR Round 1: 1. Section 1.13 of the PD does not align with the previously registered PD and MR, wherein the project location also includes the Gelber Villages. PP shall provide clarification regarding the discrepancy in the project location information between the current and previously registered project documents and monitoring reports.				
Project participant response				Date : 08/06/2026
1. The location of the project has been clarified.				
Documentation provided by project participant				

VVB assessment	Date: 11/06/2026
1. the VVB confirms that the reference to Gelber village in the historical project documentation corresponds to Kayaici village, as clarified in the current PD. The VVB therefore concludes that the discrepancy relates to the naming of a nearby settlement and does not represent a change in the physical location, project boundary, or geographic coordinates of the project activity. It is to be noted that the geo-coordinates of the project activity is consistent between the registered PDD and renewal PDD, and there is no change in the location of the project. CLOSED	

Table 3. CAR from this validation

CAR ID	01	Section no.	Section 1	Date : 04/11/2025
Description of CAR				
1) a) The baseline scenario appears to be missing in Section 1.1 of the PD. 2) b) The annual generation figure of 257.440 GWh does not match the value stated in the generation license. 3) c) It has been noted that there is an additional TM center mentioned in the system usage agreement; however, only Arsin TM is included in Section 1.1 of the PD. 4) d) The total estimated emission reduction and generated electricity values are not included in Section 1.1 of the PD.				
Project participant response				Date : 07/11/2025
a) <i>The baseline scenario has been included to section 1.1 of the PD.</i> b) <i>The value has been corrected.</i> c) <i>The additional TM has been included to section 1.1 of the PD.</i> d) <i>The total estimated emission reduction and generated electricity values have been included to section 1.1 of the PD.</i>				
Documentation provided by project participant				
"VCS PD 535 07112025_v2.docx"				
VVB assessment				Date: 17/11/2025
a) The baseline scenario has been included in Section 1.1 of the PD. Closed. b) The annual generation has been corrected throughout the PD. Closed. c) Both TMs have been incorporated into the PD. Closed. d) The total estimated emission reduction and generated electricity values have been included in Section 1.1 of the PD. Closed.				

CAR ID	02	Section no.	ER calculation Excel Sheet	Date : 04/11/2025
Description of CAR				
The calculation provided " $BE_y = (257,440 \text{ MWh}) \times 0.4568 \text{ tCO}_2/\text{MWh} = 117,592 \text{ tCO}_2/\text{year}$" seems not correct. Please check throughout PD and ER Excel Sheet.				
Project participant response				Date : DD/MM/YYYY
<i>The value used for the EF was highly fractional before, now it has been used as only "0.4568". The corresponding values in both ER and PD has been revised accordingly.</i>				

Documentation provided by project participant	
<i>"Final_ER Calculation_Akocak HEPP_v02_07-11-2025.xlsx"</i>	
VVB assessment	Date : 07/11/2025
Calculation has been corrected. Closed.	

CAR ID	03	Section no.	Section 1.10	Date : 04/11/2025
Description of CAR				
If the crediting period is fixed at 10 years, please clarify how the renewal of the crediting period is determined.				
Project participant response				Date : 07/11/2025
<i>The project has been registered under CDM templates. In the validation PD (dated 23/11/2009, and it is provided), it is stated that the crediting period will be renewed twice.</i>				
Documentation provided by project participant				
<i>"PDD_AKOC AK 23.11.2009_Validation.doc"</i>				
VVB assessment				Date: 17/11/2025
Additional supporting document is required such as registered Validation report.				
Project participant response				Date : 17/11/2025
The registered Validation Report, which states that the crediting period is renewable, has been provided.				
Documentation provided by project participant				
<i>"VALID_REP_535_26JUL2010.pdf"</i>				
VVB assessment				Date: 17/11/2025
Sufficient supporting documents have been provided. Closed.				

CAR ID	04	Section no.	Section 1	Date : 04/06/2026
Description of CAR				
Following observations have been made during PRR Round 1:				
1. The source of the values used for parameters $EF_{grid,OM,y}$ and $EF_{grid,BM,y}$ in section B.4 cannot be traced back and independently verified as the link provided in footnote 22 is not accessible. PO shall provide the accessible reference/ source for Footnote 22. 2. Footnote 14 referenced in the PD cannot be accessed, preventing the assessment of the referenced information. PO shall provide the accessible reference/ source for Footnote 14.				
Project participant response				Date : 08/06/2026

1. The translated screenshots of the link have been provided in Appendix 2. The original version has also been provided to VVB. 2. The screenshot of the link has been provided with its translated version. The values have been revised with the values of 2025, since the website has been updated on 21/05/2026 as can be seen in the screenshot provided.	
Documentation provided by project participant	
<i>Files named "EF Ref" and "Reference of Footnote 14"</i>	
VVB assessment	Date: 11/06/2026
1. Since, most of the links related to energy department and the links of the grid emission factor datasheet is not working or accessible outside Turkey, PP has provided the translated version of the emission factor in appendix 2 of the VCS PD, the value between the source document and VCS PD is found to be consistent, the document is found to be the latest available Turkish emission factor datasheet at the time of initial submission, and hence, found to be appropriate. CLOSED 2. Since, most of the links related to energy department and the links of the grid emission factor datasheet is not working or accessible outside Turkey, PP has provided the translated version of the website in footnote 14. VVB further confirms that the data presented in the PD has been updated to reflect the 2025 statistics contained in the source documentation provided by the project proponent, and hence, found to be appropriate. CLOSED	

Table 2. FAR from this verification

There is no FAR from this verification.