FINAL VALIDATION REPORT

EGLENCE I-II HYDROELECTRIC POWER PLANT

Document Prepared by RINA Services S.P.A

Report ID	2023TQMD29
Project title	Eglence I-II Hydroelectric Power Plant
Project ID	1221
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Version	3.0Aa

VCS Standard Version	VCS Standard, v4.7
Client	Egenda Ege Enerji Uretim A.S.
Prepared by	RINA Services S.p.A.
Approved by	 Laura Severino (Authorized officer signing for the VVB) Decarb & Chain of Custody Product Management
Work carried out by	Mehmet ERDOĞAN (Team Leader, VCS Validator and Local Expert)

Summary:

Brief description of the re-validation and the project: The project activity, a run-off-river hydroelectric power plant, is located on the Eglence River, in the Mediterranean Region within the Karaisali district of Adana province, Türkiye with the aim to generate electricity through renewable energy source as hydro energy power. The project has 72.55 MWm / 70.705 MWe Mwe installed capacity as confirmed through generation licenses /19/.

The Project Activity utilizes the Eglence River water to generate electricity from hydropower scheme to generate electricity with zero carbon emissions for the Turkish Power Grid. The project activity consists of two weirs and two power houses (Upstream one is Eglence I and downstream one is Eglence II). A regulator at a talweg elevation of 693.0 meters within the borders of Yenikoy district exists. The rising water is first taken to a sedimentation pool followed by a two-peace conveyance tunnel. There is a conduit between them. With the aid of a shaft, water is transferred to the Eglence I powerhouse. The tail water coming out of Eglence I power station is transferred to the conveyance tunnel after which water is first transferred to a head pond and a penstock. Finally, water is transported to the Eglence II powerhouse, founding on the right bank of the river. Each powerhouse is comprised of three turbines. The initial installed capacity of Eglence I is 42.65 MWe, and the initial installed capacity of Eglence II is 26.00 MWe. The installed capacity had changes to total of 72.55 MWm / 70.7 MWe. Where Eglence-I new installed capacity is 44.55 MWm / 43.50 MWe and Eglence-II new installed capacity is 28 MWm / 27.2 MWe, as confirmed through the Previous Verification Report /20/. There is no dam within the context of project activity. The generated electricity is transmitted to the National Electricity System through 154 kV Karakuz Switchyard (Eglence II) and 154 kV Karaisalı Substation (Eglence-I).

Eglence I-II Hydroelectric Power Plant is expected to generate 205,299 MWh. The estimated amount of emission reductions due to the realization of the proposed clean energy project is 94,766 tons CO_2 per annum as verified through calculation spreadsheet /3/.

Purpose and scope of Re-validation: The re-validation scope is defined as an independent and objective review by a VVB of the project activity to be registered. In order to confirm that the project activity, as documented, is sound reasonable and meets the identified criteria. The validation involves the assessment of project conformance to VCS rules; project conformance to the applied methodology, including the procedure for the demonstration of additionality specified in the methodology; the likelihood that methods and procedures set out in the project description will generated verifiable GHG data and information when implemented.

Method and criteria used for Re-validation: The objective of the Re-Validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the VCS Version 4.7 and GHG program applied, on the basis of the project design document. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant VCS requirements, GHG program requirements and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Re-Validation is a requirement for all VCS projects (or projects approved by another non-approved GHG Program) and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Voluntary Carbon Units (VCUs). The project activity is found to be appropriately eligible under Project Scope 1 "Energy industries (renewable / non-renewable sources)" and project type "Renewable energy projects". The validation criteria followed the guidance documents provided by VCS including the following: VCS Standard version 4.7 /5/, VCS Program Guide version 4.4 /4/ and CDM Methodology ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0 /10/.

Any uncertainties associated with the Re-validation: There are no restriction of uncertainty.

Number of findings raised during Re-validation: Re-Validation is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design. In the course of re-validation, 0 Corrective Action request (CAR) and 3 Clarification Requests (CRs) were raised. All findings are closed and all corrections are done.

Summary of the Re-validation conclusion. Egenda Ege Enerji Uretim A.S.has commissioned RINA to carry out the re-validation of the Eglence I-II Hydroelectric Power Plant. This report summarizes the findings of the validation performed on the basis of VCS Version 4.7 criteria, GHG program applied as well as criteria given to provide for consistent project operations, monitoring and reporting. RINA confirms all validation activities including objectives, scope and criteria, level of assurance, monitoring and project documentation adhere to VCS version 4.7 and all associated updated as documented in this report, are complete. RINA concludes that the project description version 0.2 of 24/07/2024 meets the VCS requirements version 4.7 /5/.

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1 INTRODUCTION

1.1 Objective

The objective of the Re-validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the VCS Version 4.7 and GHG program applied, on the basis of the project design document. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant VCS requirements, GHG program requirements and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Voluntary Carbon Units (VCUs). The project still satisfies with the VCS criteria /4/ /5/.

1.2 Scope and Criteria

The validation scope is to review the VCS PD against the VCS criteria which refer to VCS Program Guide Version 4.4 standard; VCS Standard Version 4.7 of 16/04/2024 and all the GHG program requirements /4/ /5/. Re-validation is not meant to provide any consultancy towards the project participants.

The validation was based on the guidance given in the CDM validation and verification standard for project activities /9/ and VCS guideline and standard version 4.7 /5/. The assessment team has employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the VCS PD. The main focus of the assessment team is to identify the significant risks for the project implementation and the generation of VERs. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design and monitoring report combined. The only purpose of the validation and verification is its usage during the registration issuance process as part of the VCS project cycle. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring of the project activity.

1.3 Reasonableness of Assumptions

All the revisions of the validation report before being submitted to the client were subjected to an independent internal technical review to confirm that all validation activities had been completed according to the pertinent RINA instructions. The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for VCS and CDM validation and verification.

RINA confirms all validation activities, including objectives, scope and criteria, with reasonable level of assurance and PD adherence to the VCS Standard, as documented in this report are complete.

The validation team and the technical reviewers consist of the following personnel

Role/Qualification	Last Name	First Name	Country
VCS Team Leader, VCS Validator, Local Expert	ERDOĞAN	Mehmet	Türkiye
Technical Reviewer	Hui Feng;	LIU	China

1.4 Summary Description of the Project

The Project Activity is a run-of-river type hydro power plant with a total installed capacity of 72.55 MWm / 70.70 MWe. The project activity consists of two weirs and two power houses (Upstream one is Eglence I and downstream one is Eglence II). A regulator at a talweg elevation of 693.0 meters within the borders of Yenikoy district exists. The rising water is first taken to a sedimentation pool followed by a two-peace conveyance tunnel. There is a conduit between them. With the aid of a shaft, water is transferred to the Eglence I powerhouse. The tail water coming out of Eglence I power station is transferred to the conveyance tunnel after which water is first transferred to a head pond and a penstock. Finally, water is transported to the Eglence II powerhouse, founding on the right bank of the river. Each powerhouse is comprised of three turbines. The initial installed capacity of Eglence I is 42.65 MWe, and the initial installed capacity of Eglence II is 26.00 MWe. The installed capacity had changes to total of 72.55 MWm / 70.7 MWe. Where Eglence-I new installed capacity is 44.55 MWm / 43.50 MWe and Eglence-II new installed capacity is 28 MWm / 27.2 MWe, as confirmed through the Previous Verification Report /20/. There is no dam within the context of project activity. The generated electricity is transmitted to the National Electricity System through 154 kV Karakuz Switchyard (Eglence II) and 154 kV Karaisalı Substation (Eglence-I).

The net electricity production (delivered to the grid after losses and consumption in the plant) from the plant is estimated to be 205,299 MWh per annum. The amount of electricity generated by the project is not influenced by factors outside the project boundary such as other power plants or demand for electricity.

The Project Activity is located on the Eglence River in the Mediterranean Region within the Karaisali district of Adana province, Türkiye. The nearest residential areas include the villages of Posyagabasan and Boztahta villages.

2 VALIDATION PROCESS

2.1 Method and Criteria

The validation was conducted using RINA procedures in line with the requirements specified in the VCS /5/.

The scope is defined as an independent and objective review of the VCS PD /1/ is reviewed against the criteria stated in the relevant decisions by the CDM Executive Board and VCS standard and guideline version 4.7 /4/, including the approved baseline and monitoring methodology "ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0 of 02/11/2022 /11/. The re-validation was based on the requirements in the CDM validation and verification standard for project activities Version 03.0 /9/ and VCS program guide version 4.4 and standard version 4.7 /4/ /5/.

The re-validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project document (PD).

Therefore, re-validation of the selected methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 21.0 of 02/11/2022 /10/ and reported project results were measured for compliance against the following criteria:

- VCS Standard /5/
- VCS Program Guide /4/
- CDM Methodological Tool "Tool for the demonstration and assessment of additionality" /14/
- CDM Methodological Tool "Tool to calculate the emission factor for an electricity system" /11/
- CDM Methodological Tool "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 of 02/03/2012

The re-validation consists of the following three phases:

- Document review (Project Description Report and supporting documents)
- Onsite assessment
- The resolution of outstanding issues and the issuance of the final Re-Validation Report and opinion.

2.2 Document Review

A detailed review of all project documentation was conducted to ensure consistency with and identify any deviation from VCS requirements, the baseline methodology and the project description document. The VCS PD version 0.4 of 14/01/2025 and previous versions /1/ in particular the applicability of the methodology, the validity of baseline determination, the validity of additionality of the project activity, the starting date of the project, the monitoring plan, the emission reduction calculations provided in the form of a spreadsheet /3/, were assessed as part of the validation. All documents that are reviewed are shared under appendix supporting documents.

2.3 Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	ATABEK	Fikriye Seda	*Lead Auditor/TL*	12/02/2024	Description of the project activity, Emission reductions calculations, Monitoring plan and monitoring arrangements, Environmental and social impacts Monitoring Equipment	Mehmet ERDOĞAN
2.	ERDOĞAN	Mehmet	*Lead Auditor/TL*			
3.	TAŞDELEN	Rozeran	*Carbon Consultant*			
4.	A.	Duran	*Egenda Ege En. Operation Chief*			
5.	Ö.	Haşim	*Egenda Ege En. Operation Man.*			
6.	K.	Sefa	*Egenda Ege En. Shift Op.*			
7.	S.	Mahmut	Boztahta Village Mukhtar		Benefit of the project activity Complaints about project Contact details of the project proponents Tail Water Local Employment	
8.	E.	Sami	Boztahta Village Stakeholder			
9.	S.	Yakup	Boztahta Village Stakeholder			
10.	S.	Emine	Boztahta Village Stakeholder			
11.	S.	Dürdane	Boztahta Village Stakeholder			
12.	E.	Nuriye	Boztahta Village Stakeholder			

During onsite audit, the project proponent and the carbon consultant were interviewed about description of the project activity, emission reductions calculations, monitoring plan and monitoring arrangements, monitoring equipment and environmental and social impacts of the project activity. In addition, 6 stakeholders were interviewed about the benefits or complaints about the project. They all defined that they have no complaints about the project activity.

2.4 Site Visits

On 12/02/2024, RINA team performed onsite audit for Eglence I-II Hydroelectric Power Plant. Project location is confirmed via google earth and monitoring equipment are verified through onsite visit and also PDD /2/. During the documentation and onsite assessment of the project, there were no hindrance and all the equipment's and the systems were accessible. RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The objective of this phase of the re-validation is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the project description. To guarantee transparency a re-validation protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of re-validation and the results from validating the identified criteria. The re-validation protocol consists of three tables; the different columns in these tables are described below.

A corrective action request (CAR) is raised if one of the following occurs:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions. Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions.
- The VCS requirements have not been met. There is a risk that emission reductions cannot be monitored or calculated.

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

Re-Validation Protocol, Appendix 3 - Resolution of Corrective Action Requests and Clarification		
Corrective action requests and/or clarification requests	**Response by project participants**	**Re-Validation Conclusion**
The CAR and/or CRs raised in table 1 are repeated here.	The responses given by the project participants to address the CARs and/or CRs.	The re-validation team's assessment and final conclusion of the CARs and/or CRs.

In summary, 0 CR / 3 CARs were raised during the re-validation. All corrections were made.

2.5.1 Forward Action Requests

A forward action request (FAR) is raised during re-validation to highlight issues related to project implementation that require review during the first verification of the project activity.

A forward action request (FAR) should be issued, where:

1. the actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or

2. an adjustment of the MP is recommended.

No forward action requests (FAR) were identified during the re-validation process.

3 RE-VALIDATION FINDINGS

3.1 Project Details

The Eglence I-II Hydroelectric Power Plant (hereafter referred to as the "Project" or "Eglence I-II HEPP"), Türkiye, which is developed by Egenda Ege Enerji Uretim A.S. (hereafter referred to as the "project owner") is a hydroelectric power plant in Adana province, Türkiye.

The Project has been implemented and operated by Egenda Ege Enerji Uretim A.S.The project aims to generate electricity from hydro energy and feed it to the national electricity grid. The project was not rejected by another GHG program before. In addition, the project highly supports the sustainable economic development in the region.

The Project Activity utilizes the Eglence River water to generate electricity from hydropower scheme to generate electricity with zero carbon emissions for the Turkish Power Grid. The project activity consists of two weirs and two power houses (Upstream one is Eglence I and downstream one is Eglence II). The Project Activity is a run-of-river type hydro power plant with a total installed capacity of 72.55 MWm / 70.70 Mwe as confirmed through the Previous Verification Report /20/. The generated electricity is transmitted to the National Electricity System through 154 kV Karakuz Switchyard (Eglence II) and 154 kV Karaisalı Substation (Eglence-I). The project producing positive environmental and economic benefits through the following aspects:

- Displacing the electricity generated by fossil fuel fired power plants by utilizing the renewable resources to avoid environmental pollution and GHG emissions,
- Contributing the economic development of the region by providing sustainable energy resources,
- Increasing the income and local standard of living by providing job opportunities for the local people,
- Reducing the blackout because of low voltage by lowering required capacity of the transformer.

Eglence I-II HEPP are expected to generate 205,299 MWh as verified through previous PDD /2/. The project started operation on as confirmed through the registered PDD /2/. There is no update or any change to the project design after the registration of the project.

Start date of the first crediting period: 10/04/2013 - End date of the first crediting period: 09/04/2023 as verified through latest verification report /20/. Start date of the second crediting period: 10/04/2023 - End date of the second crediting period: 09/04/2033.

<table>
<tr><th>Item</th><th>Evidence gathering activities, evidence checked, and assessment conclusion</th></tr>
<tr><td>Audit history</td><td>
<table>
<tr><th>Audit type</th><th>Period</th><th>Program</th><th>VVB name</th><th>Number of years</th></tr>
<tr><td>Validation
Registration</td><td>10/04/2013
09/04/2023</td><td>VCS</td><td>BUREAU VERITAS</td><td>10 years</td></tr>
<tr><td>Verification</td><td>16/03/2013-
31/12/2020</td><td>VCS</td><td>RECARBON</td><td>7.7 years</td></tr>
<tr><td>Verification</td><td>01/01/2021
09/04/2023</td><td>VCS</td><td>RINA</td><td>2.30 years</td></tr>
<tr><td>Re-Validation</td><td>10/04/2023
09/04/2023</td><td>VCS</td><td>RINA</td><td>10 years</td></tr>
</table>
</td></tr>
<tr><td>Sectoral scope</td><td>Sectoral Scope 1: Energy industries (renewable-/non -renewable sources).</td></tr>
<tr><td>AFOLU project category, if applicable</td><td>NA</td></tr>
<tr><td>Project activity type</td><td>Grid connected electricity generation from renewable sources</td></tr>
<tr><td>General eligibility of the project to participate in the VCS Program</td><td>• The project is not excluded under Table 2.1 of the VCS Standard.
• The project is within the re-validation deadline.
• ACM 0002 Grid-Connected electricity generation from renewable sources
• The project is a single green field investment and is not part of a project group or bundle.
• Type of project: Hydro
• The registered project activity is 72.55 MWm / 70.70 MWe as large scale.</td></tr>
<tr><td>AFOLU project eligibility, if applicable</td><td>NA</td></tr>
<tr><td>Transfer project eligibility, if applicable</td><td>NA</td></tr>
<tr><td>Project design</td><td>• Single location or installation</td></tr>
<tr><td>Project ownership</td><td>Egenda Ege Enerji Uretim A.S.</td></tr>
<tr><td>Project start date</td><td>10/04/2013</td></tr>
<tr><td>Project crediting period</td><td>10/04/2013 to 09/04/2023 CP1
10/04/2023 to 09/04/2033 CP2</td></tr>
<tr><td>Project scale</td><td>Large</td></tr>
<tr><td>Likelihood of achieving estimated GHG emission reduction or removals</td><td>For a while the project site and reservoir has been received less rain compared to ex-ante assumption. For this crediting period it has been expected to reach generation values that is described in electricity generation license.</td></tr>
<tr><td>Technologies and measures implemented by the project activity or activities</td><td>Eglence I-II Hydroelectric Power Plant which was developed by Egenda Ege Enerji Uretim A.S.is located at Karaisali district of Adana province and utilizes the Eglence River water to generate electricity from hydropower. The project is a run-of-river and the total installed capacity of the project is 72.55 MWm / 70.70 MWe, with a predicted net power supply to the grid of 205,299 MWh per annum. There is no new reservoir formation as it’s just the collection of water. The water</td></tr>
</table>

	is collected as it just enables hourly regulation. The Project Activity is a run-of-river type having a total installed capacity of 70.70 MWe and other related facilities.
Implementation schedule of the project activity or activities	The Project Activity utilizes the Eglence River water in a diversion-type run-of-river hydro power scheme to generate electricity with zero carbon emissions for the Turkish Power Grid and will generate Verified Emission Reductions (VERs) by displacing electricity that would otherwise be generated by the existing grid of the host country. The project start to generate electricity on 10/04/2013.
Project location	The Project Activity is located on the Eglence River in the Mediterranean Region within the Karaisali district of Adana province, Türkiye. The nearest residential areas include the villages of Posyagabasan and Boztahta villages. Coordinates are as follows: Eğlence I: 37°24'23.44" N / 35°12'17.46" E Eğlence II: 37°22'54.81" N / 35°12'5.66" E
Conditions prior to project initiation	There was no other hydroelectric power plant installation at the project location. The project activity does not generate greenhouse gas emissions, so it can be excluded that the implementation has been made only in order to generate GHG emissions with their subsequent reduction.
Project compliance with applicable laws, statutes and other regulatory frameworks	Identify Addition of a new power generation capacity to the grid is regulated by Energy Market Regulatory Authority (EMRA) who issues the licenses for electricity generation and is responsible for ensuring that new capacity additions are in compliance with its rules and regulations.
Double counting and participation under other GHG programs	• No double accounting • No other VER programs • The project has not been rejected by another GHG programs
No double claiming with emissions trading programs or binding emission limits	No
No double claiming with other forms of environmental credit	No
Supply chain (Scope 3) emissions double claiming	The project activities doesn't affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain.
Sustainable development contributions	The project produces electricity from renewable energy sources using hydro as the power source and to contribute to Türkiye's growing electricity demand through a sustainable and low carbon technology. The project displaces the same amount of electricity generated by the grid dominated with fossil fired power plants. The project is expected to generate 205,299 MWh annually. The annual emission reduction estimated by the project is 94,766 tonnes CO2, approximately. While this number of emissions is mitigated, technology transfer is also realized as benefitting from hydropower. The project contributes to improve the environmental situation in the region and in the country as avoiding fossil fuel-based electricity will

	enhance the air quality and help to reduce the negative effects on the climate. Through renewable technologies and hydro-based electricity sustainable and climate friendly development is promoted. During construction and operational period, the project has created employment opportunities for the local community. The project contributes the economic development of the region by providing sustainable energy resources. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.
Additional information relevant to the project	• No leakage • No commercially sensitive information • No further information.

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	Nearest residential areas and stakeholders are defined according to project Description Documents that is prepared by ARÜV Env. on 2010 according to present potential the environmental effects of project. According to local laws in Türkiye a project description document should be provided to the Ministry and Ministry decide if EIA is required or not. So EIA positive decision is examined with decision number 1945 and date of 28/07/2010.
Legal or customary tenure/access rights	The project has all tenure and access rights.
Stakeholder diversity and changes over time	Most of the stakeholders are villagers from Karaisali, Adana province
Expected changes in well-being	The Project has resulted in the creation of new jobs in the project region and improvement in local roads, contributing to living standards in the region. Moreover, the project owner has provided contribution in kind to the local community, although these activities are not required legally. As a result, the community is supporting the project, and they believe that it creates a momentum for local sustainable development.
Location of stakeholders	Karaisali, Adana- Türkiye.
Location of resources	The project has all tenure and access rights.

3.2.1.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder engagement process	First Meeting for Eglence I HPP: 24 November 2009 Second Meeting for Eglence II HPP: 25 November 2009
Consultation outcome	The project validated via onsite audit for re-validation purpose. Based on the interviews, there are no complaints from the local community regarding the project implementation & operation. The project participants applied a local stakeholder consultation (LSC) process in validation phase in line with the local regulation. A local stakeholder meeting regarding the construction of the greenfield project Eglence I-II HEPP was held in Etekli -Boztahta village, Karaisali, Adana province on 24-25/11/2009. The meeting was announced in regional and national newspapers. Furthermore, important local stakeholders, including residents from nearby villages, local authorities, the Kaimakam office, etc received personal invitations. Also Interviews were conducted on 12/02/2024 with Mukhtar and Stakeholders. RINA verified that no negative feedback is received during the CP renewal process.
Ongoing communication	Over 20 people attended (participants' information are available), and the meeting included a presentation, a dialog session, and a personal questionnaire. An informational brochure (can be provided) summarizing all the information presented was handed to all participants with contact information of a representative for any further questions and clarifications.
Stakeholder input	The contact information of the plant responsible exist at the Mukhtar, the project owner and local community are always in touch. The project owner regularly checks with the Mukhtar if any complaint or a request exists. Any complaint or need from the local community could directly be received by the project owner and appropriate contributions or improvements are made to the local community.

3.2.1.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Obtaining consent	There aren't any ongoing or unresolved conflicts and demonstrate that the project does not exacerbate nor influence the outcomes of unresolved conflicts.
Outcome of FPIC discussion	In addition to this during interview, it is asked to the stakeholders and project employees if any legal contests or disputes have arisen and they confirmed that there is no legal contest or disputes have arisen. There is no relocation and forced physical or economic displacement.

3.2.1.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Development process	The VVB assessed that whether a comment book available at the most appropriate and publicly accessible location (Boztahta-Posyağabasan and Etekli Villages, the nearest residential area) so that stakeholders can provide feedback on the project. The continuous input/grievance mechanism has been verified through interview with the headman of village and the logbook have been checked. There isn't any positive or negative comment written on them.
Grievance redress procedure	Stakeholders directly reach project owner or the Mukhtar. The project owner regularly checks with the Mukhtar if any complaint or a request exist.

3.2.1.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
The local villagers asked about employment possibilities. The project site was located in the east of Turkey where employment possibilities art limited and by the project local people are employed and project support local development.	Project owner gave priority to local villagers during construction and operation of the project for hiring employees. The project owner support local employment if a new employment opportunity occurs project owner prefer to employe from local people.	The local villagers asked about employment possibilities. During interview it is seen no new employment is need by project owner for now.

3.2.2 Respect for Human Rights and Equity

3.2.2.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	Turkey has ratified ILO convention 100, 111, 122 and 142, which provides gender equality and promotes women's employment. The project outputs serve everyone without regarding gender. It provides electricity for all. During onsite review and interview with stakeholders and employees ıt is examined that the project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.
Management experience	There isn't an expert required for the Gender Safeguarding Principles & Requirements. Since this is a renewable energy project no gender expert was required as we executed for the other similar project activities. Additionally, no need was raised by the stakeholders.
Gender equity in labor and work	The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.

Human trafficking, forced labor, and child labor	Turkey has ratified ILO 87 and 98 conventions. All employee are recruited according to the national legislations. Turkey is a party of IPEC since 1992 and ratified ILO convention 138 and 182. During onsite no child and young labor is seen.

3.2.2.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	Türkiye is a party to European Convention on Human Rights since 18 May 1954

3.2.2.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	According to the registered PDD and Validation Report of Eglence I-II Hydroelectric Power Plant, no sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture were observed in the project area. According to Turkish regulations project description report was presented to Ministry and EIA positive decision was taken. Hence effect of project can be said as limited.

3.2.2.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Rights to territories and resources	There are no uncertainties with regards land tenure, access rights, usage rights or land ownership.
Respect for property rights	Forestry Permit is received by local authorities and the process is evaluated in EIA.

3.2.2.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Process used to design the benefit sharing plan	NA
Summary of the benefit sharing plan	NA
Approval and dissemination of benefit sharing plan	NA

3.2.3 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Risks to stakeholder participation	*Stakeholder consultation process was conducted. No risk is determined.*
Working conditions	The Project avoids community exposure to increased health risks and does not adversely affect the health of the workers and the community. No risk is determined.
Safety of women and girls	No risk is determined.
Safety of minority and marginalized groups, including children	No risk is determined.
Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)	The project activity is operated in line with Environmental Law and related regulations /21/ Water Pollution Control Regulation, Hazardous Wastes Control Regulation, Industrial Air Pollution Control Regulation. No risk is determined.

3.2.4 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	The Project does not physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified. Regarding the monitoring of “Water quality and quantity”, “Biodiversity and aquatic life”, streamgage gauging station is built for the measurement of flow to assess the environmental flow. General directorate for state hydraulic works executes the monitoring as seen onsite visit and the Project complies with the regulations.
Soil degradation and soil erosion	*The project is operated under Soil Pollution Control Regulation.*
Water consumption and stress	Wastewater is collected through within the septic tank and is transferred through the sewage truck.
Usage of fertilizers	Not related to the project activity.

3.2.4.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species and habitat	EIA POSİTİVE decision is seen. The project has not impact habitats for rare, threatened, or endangered species.

3.2.4.2 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
NA	NA

3.2.4.3 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	NA

3.3 Application of Methodology

3.3.1 Title and Reference

Methodology: ACM0002: Grid-connected electricity generation from renewable sources Version 21.0 of 02/11/2022, refers to */10/* correctly applied for the project activity. The application of the methodology is subject to the following methodological tools:

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002	Grid-connected electricity generation from renewable sources	21
Tool	TOOL07	Tool to calculate the emission factor for an electricity system	07
Tool	TOOL11	Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period	03.0.1
Tool	TOOL01	Tool for the demonstration and assessment of additionality	07
Tool	TOOL27	Investment analysis	12

3.3.2 Applicability

The methodology ACM0002: Grid-connected electricity generation from renewable sources is applicable to grid-connected renewable power generation project activities that a) install a Greenfield power plant; b) involve a capacity addition to (an) existing plant(s); c) involve a retrofit of (an) existing operating plants/units; d) involve a rehabilitation of (an) existing plant(s)/unit(s); or e) involve a replacement of (an) existing plant(s)/unit(s).

The project activity installs a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (greenfield), ACM0002: Grid-connected electricity generation from renewable sources is applicable. The applicability criteria are listed and justified below:

For each of the applied methodology's applicability conditions are described the steps taken to assess compliance of the project with the applicability condition;

The choice of methodology ACM0002 Version 21.0 is justified as the proposed project activity meets relevant applicability criteria:

Methodology ID	Applicability condition	Justification of compliance
ACM0002	This methodology is applicable to grid-connected renewable energy power generation project activities that: **(a)** Install a Greenfield power plant; **(b)** Involve a capacity addition to (an) existing plant(s); **(c)** Involve a retrofit of (an) existing operating plants/units; **(d)** Involve a rehabilitation of (an) existing plant(s)/unit(s); or **(e)** Involve a replacement of (an) existing plant(s)/unit(s)	The project is installation of a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity /2/.
ACM0002	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 battery energy storage systems (BESS) with a Greenfield power plant; **(b)** Integrate 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)	The project does not involve an integration of a BESS.
ACM0002	The methodology is applicable under the following conditions: **(a)** The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; **(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,	The project is a hydro power plant.

	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 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 2 may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section 5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the 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.	
ACM0002	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 (3), 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 (3), is greater than 4 W/m2. **(d)** The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is	as per the methodology, the power density calculation is as following: **Eglence I** PD = 43,500,000 – 0 / 63,270 – 0 PD = 687.53 W/m2 which is greater than 10 W/m^2 /2/. **Eglence II** PD = 27,200,000 – 0 / 14,604 – 0 PD = 1,862.53 W/m2 which is greater than 10 W/m^2 /2/.

	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 b. Less than 10 per cent of the total installed capacity of integrated hydro power project.	
ACM0002	In the case of integrated hydro power projects, project participants shall: **(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.	The project is not an integrated hydropower plant.
ACM0002	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.	The project does not involve switching from fossil fuels to renewable energy sources and is not a biomass fired power plant /2/.
ACM0002	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 does not involve retrofits, rehabilitations, replacements, and it’s not a capacity addition /2/.

RINA hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM EB, and is applicable to the project, which complies with all the applicability conditions therein and the selected version is valid at the time of the re-validation commencement. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology.

3.3.3 Project Boundary

The project boundary clearly defined in accordance with the applied methodology. According to the approved baseline and monitoring methodology "ACM0002 */10/*, the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project is connected to since there is no dispatch grid system in Türkiye, project boundary is considered as the National Electricity Grid of Türkiye according to applied tool.

By checking the information during the onsite audit, RINA can confirm that all the emission sources, gases have been included in the project boundary, and the description in the latest version of VCS PD version 0.2 */1/* is accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

Source		Gas	Included?	Justification/Explanation
Baseline	Generation mixes of electricity grid in Türkiye	CO_2	Yes	Main source.
		CH_4	No	The dominant emissions from power plants are in the form of CO2, therefore CO2 emissions from fossil fuel fired power plants connected to the grid will be accounted for in baseline calculations.
		N_2O	No	-
Project	Construction and operation of HPP	CO_2	No	Not applicable

3.3.4 Baseline Scenario

According to the approved baseline methodology ACM0002 */10/*, the baseline scenario is "Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid". Since the baseline is defined by the approved methodology, no further analysis is required as per the paragraph 75 of the VVS */9/*.

RINA verified that the baseline was updated assessed according to the tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting

period" /13/. The conclusion is that the baseline of the type I component of the project activity complies and will continue to comply with the laws and regulations in the sector for the next crediting period. It can be concluded that the conditions used to determine the baseline emissions in the previous crediting period are still valid.

The tool consists of two steps. The first step provides an approach to evaluate whether the current baseline is still valid for the next crediting period. Hence 1st step is approved for this project activity.

The validity of the current baseline is assessed using the following Sub-steps:

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

The approved baseline methodology "Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid" 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 VCS project activity. The current baseline has been updated with the latest data and projections available by the official bodies /7/. It's clear that the baseline scenario is still valid for the second crediting period in accordance with the tool /11/.

Step 1.2: Assess the impact of circumstances.

The present circumstances do not influence the calculation of the current baseline emissions. A new grid emission factor of the Türkiye grid is chosen /8/ and defined for the new crediting period. As demonstrated in the assessment above the baseline of the grid and it does not need to be updated.

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.

It is assessed that the remaining technical lifetime of the equipment that would have continued to be used in the absence of the project activity. In general the technical lifetime of the project activity (including hydro turbines) is defined as 150,000 hours but in real case scenario it seems to be higher than the 25 years thanks to regular maintenance and new technical upgrades/13/. So the equipment's lifetime exceeds the crediting period for which renewal is requested. Equipment only requires regular maintenance. The baseline scenario identified at the validation of the project activity was the continuation of CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. Under this scenario, no investment from the project's proponent

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

The data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are still valid have been assessed. For baseline calculation there are two main parameters: the electricity generation and the grid emission factor. In line with the tool and methodology */6/ /13/,* only the grid emission factor has been updated during the second crediting period renewal.

Step 2.1: Update the current baseline

The current baseline emissions for the subsequent crediting period have been updated.

Step 2.2: Update the data and parameters

In line with the tool and methodology, only the grid emission factor has been updated during the second crediting period renewal.

According to the tool /13/, the application of Steps 1.1, 1.2, 1.3 and 1.4, 2.1 and 2.2 confirmed that the current baseline as well as data and parameters are still valid for the 2nd crediting period, then this baseline, data and parameters can be used for the renewed crediting period.

The project activity is in its 2nd crediting period. During the previous crediting periods, the project has not missed or skipped neither timeline of verification nor CP renewal process. The ongoing financial need for carbon revenue continues for the last crediting period. Since the increased maintenance and repair costs, exchange rate effect. The system usage and operation fees that need to be paid by the project activity to Distribution Company is another important factor contributing to the project's expenditure.

RINA verified that the baseline was updated assessed according to the tool “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” */10/.* The conclusion is that the baseline of the type I component of the project activity complies and will continue to comply with the laws and regulations in the sector for the next crediting period. It can be concluded that the conditions used to determine the baseline emissions in the previous crediting period are still valid.

3.3.5 Additionality

A full reassessment of additionality is not required when renewing the project crediting period in line with the VCS rules */5/.* Additionally, ongoing financial need has been demonstrated by explanation related to VERs revenues under section B.5.2 of the PDD */1/* has been validated.

During re-validation period ongoing financial need is examined. As of the end of 2023, the project has completed ten-year fixed feed-in-tariff period, i.e. the YEK-DEM mechanism, income is lower due to lower market sales price (instead of fixed tariff) of electricity and increasing maintenance costs. The electricity is sold to grid at unpredictable, fluctuating unit price. The system uses and distribution fees has increased significantly, compared to the situation during implementation.

Hence, significance of carbon revenues will be higher in the following years. Electricity revenues and carbon sales revenues are controlled with supporting documents /22/ and it isdetermined that carbon sales is %4 of total electricity sales revenues so The ongoing financial need derived from VCS certification is necessary to reduce unattractiveness of the project and enhance the project's operation in the second crediting period. This VCS finance helps to maintain project activity contributing to the development of local communities in terms of income and employment creation, worker quality increase and emission reductions.

3.3.6 Quantification of GHG Emission Reductions and Carbon Dioxide Removals

According to the applied methodology /10/ baseline emissions are calculated with the formulae below:

$$\boldsymbol{BEy} = \boldsymbol{EGPJ,y} \times \boldsymbol{EFgrid}\text{,CM,}\boldsymbol{y}$$

where:

BEy = Baseline Emissions in year y (tCO2e)

$EG_{PJ,y}$ = 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 "Tool to calculate the emission factor for an electricity system"(t CO2/MWh)

$EGPJ,y = EGfacility$ for greenfield power plants

In accordance with ACM0002, the baseline emissions are calculated as the net electricity generated by the project activity, multiplied with the baseline emission factor of the project grid.

Baseline Emissions

The calculation of baseline emission reductions is carried out in a conservative manner providing documentation and references to data sources. An approved CDM methodology, ACM0002 /10/ and methodological tool "Tool to calculate the emission factor for an electricity system /11/" is applied. The directly official published data /8/ by Turkish Ministry of Energy and Natural Resources is used for this monitoring period.

Calculating of the Combined Margin Emission Factor

It's been published as 0.4616 tCO_2/MWh by the Ministry of Energy.

According to the methodology the baseline emissions may consist of:

BEy= 205,299 x 0.4616 = 94,766 tCO_2 per year

Project Emissions

The power density of the project activity (PD) is calculated as follows:

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

$A_{PJ} - A_{BL}$

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.

Where:

PD = Power density of the project activity (W/m²)
CapPJ1 = Total Installed capacity of the Eglence I hydro power plant after the implementation of the project activity (W)
CapBL1 = Total installed capacity of the Eglence I hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero
CapPJ2 = Total Installed capacity of the Eglence II hydro power plant after the implementation of the project activity (W)
CapBL2 = Total installed capacity of the Eglence II hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero
APJ 1 = Area of the Eglence-I reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m2)
ABL 1 = Area of the Eglence-I 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
APJ 2 = Area of the Eglence-II reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m2).
ABL 2 = Area of the Eglence-II 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

For project Power density has been calculated for two projects separately.

For Eglence-I hydro power plant,

Cap_{PJ1} = 43,500,000 W
Cap_{BL1} = 0.0 W
A_{PJ1} = 63,270 (m²)
A_{BL1} = 0.0 (m²)

Therefore, PD is calculated as;

$$PD = \frac{43,500,000 - 0}{63,270 - 0}$$

PD = ~687.53 W/m^2

For *Eglence-II* hydro power plant,

Cap_{PJ1} = 27,200,000 W

Cap_{BL1} = 0.0 W

A_{PJ1} = 14,604 (m^2)

A_{BL1} = 0.0 (m^2)

Therefore, PD is calculated as;

$$PD = \frac{27{,}200{,}000 - 0}{14{,}604 - 0}$$

PD = ~1,862.53 W/m^2

Since both power plants have power density higher than 10 W/m2, project emissions are identified as zero as per the methodology.

Leakage

In accordance with the ACM0002 (version 21), leakage is taken as zero since the project is a new power plant is taken as zero, LEy= 0

Emission Reductions

ERy = BEy-PEy-LEy

ERy = 94,766 tCO_2

It is confirmed that all the documentation used by the project participants as the basis for assumptions and source of data are quoted and interpreted in the PDD /1/ and the Emission Reduction Calculation Spread Sheet /3/ are correctly applied in line with the methodology /10/.

3.3.7 Methodology Deviations

Not applicable

3.3.8 Monitoring Plan

The monitoring plan (data and parameters fixed ex ante) includes all data and parameters fixed ex ante required by the applied methodology /6/ /7/ /8/ and baseline tool /9/.

Parameters ex-ante:

Data/ parameter	Unit	Value applied	Assessment

Combined Margin of Türkiye National Grid (CM)	tCO2/ MWh	0.4616	Emission factor of the Turkish grid determined ex-ante. It's been published by the Ministry of Energy for 2020 on 20/09/2022 /7/. It is confirmed that public official data vintage is in line with the tool /11/ for the 2nd crediting period.
Cap_{pBL} Installed capacity of the hydro power plant before the implementation of the project activity	W	0	For new hydro power plants, this value is zero
A_{BL} Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m2).	m^2	0	For new reservoirs, this value is zero.

The re-validation team considers that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology including applicable tool(s).

Parameters ex-post:

<table>
<tr><th>Data/ parameter</th><th>Unit</th><th>Assessment</th></tr>
<tr><td>$EG_{facility,y}$</td><td>MWh/yr</td><td>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.

Two sets of meters measuring continuously then calculate the net electricity generation supplied by the project to grid.

The annual electricity fed to the grid is estimated as 205,299 MWh as verified through PD of previous crediting period /2/. The electricity generation of the plant will be calculated based on EPIAS records and crosschecked with TEIAS records that are the basis of sold electricity. The net electricity is measured continuously and recorded at least monthly. Net electricity generation will be measured by two meters are sealed by TEIAS.

Meters information:

<u>Eglence-I</u>
<table>
<tr><th>Specifications</th><th>Main meter</th><th>Spare Meter</th></tr>
<tr><td>Manufacturer:</td><td>EMH</td><td>EMH</td></tr>
<tr><td>Serial No:</td><td>9798953</td><td>9798954</td></tr>
<tr><td>Accuracy Class:</td><td>0.5S</td><td>0.5S</td></tr>
</table>
</td></tr>
</table>

Eglence-II

Specifications	Main meter	Spare Meter
Manufacturer:	EMH	EMH
Serial No:	9798955	9798956
Accuracy Class:	0.5S	0.5S

As verified during onsite audit and TEIAS documents /18/.

Calculations are as follows:

EGFacility,y= EGexport,y- EGimport,y

The technical specifications of the power meters should be in line with Measure and Metering Devices Regulation by Ministry of Industry and Trade. In addition, the metering devices are in line with the technical requirements which are set out by the Communiqué for Metering Devices to be used in the Electricity Market /16/. Also, according to Article 11 of this Communiqué, meters shall be in class of 0.5s, which means error interval for measuring is in +-0.5% range which is well acceptable according to rules.

TEIAS performs a regular maintenance on a regular basis. TEIAS is the main responsible for calibration and maintenance of the devices. TEIAS performs the necessary maintenance and calibration. Since the electricity generation data is used for the billing and accounting between TEIAŞ and Project Participant the data is of high quality. The calibration will be implemented in accordance with the related standard procedures. The periodical maintenance is under the responsibility of TEIAS and has been fixed as once 10 years /17/. The periodic tests are conducted every two years, however, TEIAS can change this period depending on their timeline.

The necessary regulations regarding to electricity generation and metering are checked by the re-validation team. The monitoring plan of the $EG_{PJ,y}$ parameter is line with the necessary regulations.

The re-validation team considers that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology including applicable tool(s).

Cap_{PJ} Installed capacity of the hydro power plant after the implementation of the project activity	W	43,500,000 for Eglence-ı 27,200,000 for Eglence-ı This parameter will be monitored once at the beginning of each crediting period. It is confirmed also by the parameter readings on the design plates of each turbine and by summing the two units
A_{PJ} Area of the reservoir measured on the surface of the water, after the implementation of the project activity, when the reservoir is full	m^2	Eğlence I: 63,270 Eğlence II: 14,604 Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m2) Reference of parameter is google earth calculation of Area of reservoir as registered PDD. It is verified onsite visit.

3.4 Non-Permanence Risk Analysis

There is not any risk for the project activity.

4 RE-VALIDATION OPINION

4.1 Re-Validation Summary

RINA has performed the re-validation of the updated VCS-PD version 0.4 of 14/01/2025 for the project activity "Eglence I-II Hydroelectric Power Plant". The re-validation is performed for the 2nd crediting period (from 10/04/2023 to 09/04/2033). The project complies with the re-validation criteria for projects set out in VCS guideline version 4.4 and standard version 4.7 /4/ /5/. The project activity is likely to achieve estimated GHG emission reduction or removals. RINA also declares that GHG statement was conducted in accordance with ISO 14064-3

4.2 Re-Validation Conclusion

Crediting period: From *[10-04-2023]* to *[09-04-2033]*

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

Vintage period	Estimated baseline emissions (tCO_2e)	Estimated project emissions (tCO_2e)	Estimated leakage emissions (tCO_2e)	Estimated reduction VCUs (tCO_2e)	Estimated removal VCUs (tCO_2e)	Estimated total VCUs (tCO_2e)
10.04.2023-31.12.2023	69,062	0	0	69,062	0	69,062
2024	94,766	0	0	94,766	0	94,766
2025	94,766	0	0	94,766	0	94,766
2026	94,766	0	0	94,766	0	94,766
2027	94,766	0	0	94,766	0	94,766
2028	94,766	0	0	94,766	0	94,766
2029	94,766	0	0	94,766	0	94,766
2030	94,766	0	0	94,766	0	94,766
2031	94,766	0	0	94,766	0	94,766
2032	94,766	0	0	94,766	0	94,766
01.01.2033-09.04.2033	25,704	0	0	25,704	0	25,704
Total	**947,660**	**0**	**0**	**947,660**	0	**947,660**

APPENDIX 1: COMMERCIALLY SENSITIVE INFORMATION

Section	Information	Justification	Assessment method and conclusion
NA	NA	NA	NA

APPENDIX 2: SUPPORTING DOCUMENTS

/1/	GTE: VCS PD for Eglence I-II Hydroelectric Power Plant, version 04 of 14/01/2025.
/2/	VCS PD for 1st crediting period of Eglence I-II Hydroelectric Power Plant, version 6.0 of 25/09/2013
/3/	GTE: Grid ERs Calculation Spreadsheet "ER_Calculation_Sheet_Eglence_24.07.2024" version 0.2 of 24/07/2024
/4/	VCS Verified Carbon Standard: VCS Program Guide, VCS Version 4.4 of 29/08/2023
/5/	VCS Verified Carbon Standard: VCS Standard, VCS Version 4.7 of 16/04/2024
/6/	VCS Verified Carbon Standard: VCS Validation report template, 4.3 of 29/08/2023
/7/	Ministry of Energy and Natural Resources: Turkish National Electricity Grid Emission Factor, Document no. ETKB-EVÇED-FRM-039 Rev.02 of 20/09/2022
/8/	CDM Executive Board: Clean Development Mechanism Project Standard for project activities, version 03.0 of 09/09/2021
/9/	CDM Executive Board: Clean Development Mechanism Validation and Verification Standard for project activities, version 03.0 of 09/09/2021
/10/	CDM Executive Board: Baseline and Monitoring Methodology "ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0 of 02/11/2022
/11/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 07.0 of 31/08/2018
/12/	CDM Executive Board: Methodological Tool "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion", version 03.0 of 22/09/2017
/13/	CDM Executive Board: Tool "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 of 02/03/2012
/14/	CDM Executive Board: Methodological Tool "demonstration and assessment of additionality", version 07.0 of 22/09/2017
/15/	BV: Validation Report of 1st crediting period N° CER.1927.10.C45.REV1, version 3.0 date of 07/10/2013
/16/	Energy Market Regulatory Authority: Communiqué for Measurement Devices used in the Electricity Market, date of 22/03/2003
/17/	Ministry of Industry and Technology Regulatory Regulation of electric, water and gas counter inspection date of 23/11/2023
/18/	Turkish Electricity Transmission Company (TEIAS): Meter Change Protocol of 22/05/20201 for Eglence – I-II electricity meters
/19/	Energy Market Regulatory Board: Generation License numbered EU/1435-2/1038 date of 27/12/2007 for Eğlence I HEPP and EU/1435-3/1039 date of 27/12/2007 for Eğlence II.
/20/	RINA: Previous Verification Report, report ID: 675 version 01.2 of 30/09/2021
/21/	EIA positive decision for Eglence I HEPP; date: 28/07/2010, NO: 1945 and 30/07/2010 and No: 1950 for Eglence II HEPP
/22/	Electricity sales revenue between company and Electricity Distribution Company (04/11/2021)

APPENDIX 3: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Table 1. Remaining FAR from previous verification

FAR ID		**Section no.**		**Date:**
Description of FAR				
Project participant response				**Date:**
Documentation provided by project participant				
VVB assessment				**Date:**

Table 2. CR from this verification

<table>
<tr><td>CR ID</td><td>1</td><td>Section no.</td><td></td><td>Date: 27/02/2027</td></tr>
<tr><td colspan="5">Description of CR</td></tr>
<tr><td colspan="5">1- Please share supporting documents for Project Start Date (confirmed through the Eglence II Commissioning date by validation) – 10/04/2013.
2- Section 1.18 please share details about SDG 8.
3- Under Section 5.3 please share calibration and test frequency and calibration dates as given test dates.
4- Please share employment and training as monitoring parameters</td></tr>
<tr><td colspan="4">Project participant response</td><td>Date: 11/06/2024</td></tr>
<tr><td colspan="5">1- Please see the file named “Provisional Acceptance – Eglence II” as a supporting document for the date 10/04/2013.
2- Section 1.18 is revised.
3- Section 5.3 is revised. The calibration dates are added to the table. Also, within the text the required calibration and test frequency information is added.
4- “Quantitative Employment” and “Qualitative Employment” as monitoring parameters are added under Section 5.2.</td></tr>
<tr><td colspan="5">Documentation provided by project participant</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="4">DOE assessment</td><td>Date: 08/07/2024</td></tr>
<tr><td colspan="5">1- OK
2- OK
3- Please check test and calibration dates of electricity meter and please note that calibration date can not be later than test date, because calibration activity conducted and then meter is allowed to be placed.
<table>
<tr><th></th><th>Meter</th><th>Serial No</th><th>Date of Testing</th><th>Calibration Date</th></tr>
<tr><td rowspan="2">Eglence I</td><td>Main</td><td>9798953</td><td rowspan="2">30 December 2020</td><td rowspan="2">22 May 2021</td></tr>
<tr><td>Spare</td><td>9798954</td></tr>
<tr><td rowspan="2">Eglence II</td><td>Main</td><td>9798955</td><td rowspan="2">31 December 2020</td><td rowspan="2">22 May 2021</td></tr>
<tr><td>Spare</td><td>9798956</td></tr>
</table>
4. OK.
<u>Hence CR ID 1 is not closed.</u></td></tr>
<tr><td colspan="4">Project participant response</td><td>Date:</td></tr>
<tr><td colspan="5">3- Revised as follows.
Table 4 Dates of testing for the currently active main and spare meters
<table>
<tr><th></th><th>Meter</th><th>Serial No</th><th>Date of Testing</th><th>Calibration Date</th></tr>
<tr><td rowspan="2">Eglence I</td><td>Main</td><td>9798953</td><td rowspan="2">30 December 2020</td><td rowspan="2">16 March 2020</td></tr>
<tr><td>Spare</td><td>9798954</td></tr>
<tr><td rowspan="2">Eglence II</td><td>Main</td><td>9798955</td><td rowspan="2">31 December 2020</td><td rowspan="2">~~16 March 2020~~</td></tr>
<tr><td>Spare</td><td>9798956</td></tr>
</table></td></tr>
<tr><td colspan="5">Documentation provided by project participant</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="4">DOE assessment</td><td>Date: 23/07/2024</td></tr>
<tr><td colspan="5">3- Please see the table that you shared on the first PD. Date are true you only replace dates of calibration and test. Calibration date is: 20/12/2020 and first index (test date) is 22/05/2021.
<u>Hence CR ID 1 is not closed.</u></td></tr>
<tr><td colspan="4">Project participant response</td><td>Date: 24/07/2024</td></tr>
<tr><td colspan="5">3- Revised. The dates are changed.</td></tr>
<tr><td colspan="5">Documentation provided by project participant</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td colspan="4">DOE assessment</td><td>Date: 06/08/2024</td></tr>
<tr><td colspan="5">OK
<u>Hence CR ID 1 is closed.</u></td></tr>
</table>

CR ID	2	Section no.		Date: 27/02/2027
Description of CR				
1- Please share connection agreement 2- Please share no double accounting commitment with VVB.				
Project participant response				**Date:** 11/06/2024
1- Please see the files named “Eglence I Connection Agreement” and “Eglence II Connection Agreement”. 2- Please see the file named “No Double Accounting” as a supporting document.				
Documentation provided by project participant				
DOE assessment				**Date:** 08/07/2024
1- OK **2- OK** **Hence CR ID 2 is closed.**				

CR ID	3	Section no.		Date: 27/02/2027
Description of CR				
1- Please share updated financial on-going sheet with the revised electricity and carbon sales values in the last crediting period with actual values to prove the project will not be effective without carbon revenue.				
Project participant response				**Date:** 11/06/2024
1- This is the second crediting period. The additionality of the project was presented in the first crediting period. So, within VCS Standard framework, there is no need to demonstrate the additionality because, there has been no capacity change in the project since the first crediting period and the project is still in compliance with all required relevant regulations. This is also explained under Section 3.5 of the PD. If DOE does not agree, could you please share the rule regarding the revision of financial calculations?				
Documentation provided by project participant				
DOE assessment				**Date:** 08/07/2024
1) PD shall provide details on how the carbon revenue is used for the project implementation. Ongoing financial need discussion shall cover issues; a. Information highlighting the key categories and amounts or relative proportions (%) of project income and outgoings, including the relative proportion of certification related cost and revenue. b. Description on how finance derived Gold Standard Certification contributes to or is being used to sustain or enhance the project. **Hence CR ID 3 is not closed.**				
Project participant response				**Date:**
An explanation regarding the ongoing financial need is added under Section 3.5 Additionality				
Documentation provided by project participant				
DOE assessment				**Date:** 23/07/2024
Please share invoice of carbon revenue if any carbon sales were conducted (File named “Invoice_Eglence I II).				
Project participant response				**Date:** 24/07/2024
The invoice is shared as a supporting document.				

Documentation provided by project participant	
DOE assessment	**Date:** 06/08/2024
OK. **Hence CR ID is closed.**	

APPENDIX 4: COMPETANCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig.: *We declare that Mr:*	**Mehmet ERDOGAN**
è qualificato come[1]: *is qualified as:*	**TL – VAL[4] – VER – TEC – REG-EXP[3]- ITR**
nello schema[2]: *for the scheme:*	**VCS – CCB – GS4GG**
per le seguenti aree tecniche: *for the following technical areas:*	**1.1 – 1.2 – 9.2 – 13.1 – 13.2**

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA *TECHNICAL AREA DESCRIPTION*	SCOPO SETTORIALE *SECTORAL SCOPE*
1.1	Thermal energy generation	1
1.2	Renewables	1
3.1	Energy demand	3
9.2	Iron, steel and Ferro-alloy production	9
13.1	Waste handling and disposal	13
13.2	Manure	13

in accordo alle istruzioni dell'Unità responsabile (OU) per sostenibilità & cambiamenti climatici.
in accordance with the instructions of the responsible unit (OU) for the sustainability & climate change.

REVISIONE *REVISION*	DATA *DATE*	MOTIVAZIONI PER LA REVISIONE *REASON FOR THE REVISION*
0	24.03.2023	First Issue
1	12/04/2023	GS4GG extension
2	24/07/2023	GS4GG VAL extension
3	10/12/2023	TEC SS3 extension
4	31/01/2024	ITR extension

Il Responsabile di schema
Scheme Manager

[1]
VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
REG-EXP : Regional Expert
ITR : Independent Reviewer
DET: Déterminer

[2]
CDM: Clean Development Mechanism
VCS: Verified Carbon Standard
GS4GG: Gold Standard for Global Goals
SCS: SocialCarbon Standard
JI: Joint Implementation
ISO14064-2 : International standard 14064 part 2
UER : Upstream Emission Reduction
CCB : The Climate, Community & Biodiversity Alliance

[3] Turkey

[4] For GS4GG only

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS4GG Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports

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CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra: **Hui Feng LIU**

We declare that Mr/Mrs/Ms:

è qualificato come[1]: **CDM –TEC, -VAL,- VER, -TL ITRP, REG-EXP[2]**
is qualified as:

per le seguenti aree tecniche: **1.1, 1.2, 8.1, 9.2, 13.1**
for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA *TECHNICAL AREA DESCRIPTION*	SCOPO SETTORIALE *SECTORAL SCOPE*
1.1	Thermal energy generation	1
1.2	Renewables	1
8.1	Mining and mineral processes	8
9.2	Iron, steel and ferro-alloy production	9
13.1	Solid waste and wastewater	13

in accordo alle istruzioni della Unità Certification Innovation and Sustainability.
in accordance with the instructions of the Certification Innovation and Sustainability Unit.

REVISIONE *REVISION*	DATA *DATE*	MOTIVAZIONI PER LA REVISIONE *REASON FOR THE REVISION*
0	10/09/2010	-
11	31/03/2017	Updating qualification as ITRP
12	30/07/2018	Updating qualification as REG-EXP
13	15/11/2019	Update qualification with "Sampling and surveys for CDM PAs and PoAs"

Il Resp. CEINS
Head of CEINS

[1] Legend:
VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS : Verified Carbon Standard:
GS: Gold Standard
SCS: SocialCarbon Standard
JI: Joint Implementation

[2] China

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports

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