



Verified Carbon Standard

SANIBEY DAM AND HYDROELECTRIC POWER PLANT



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Summary:

Applus+ Certification has performed the VCS crediting period (CP) renewal validation of the Sanibey Dam and Hydroelectric Power Plant in Turkey between 25/03/2022 and 30/11/2022.

Sanibey Dam and Hydroelectric Power Plant involves installation and operation of licensed hydro power plant and has the installation of two vertical axis Francis turbines with 155.33 MWe power capacity each, so it has a total capacity of 310.66 MWe. During the second crediting period which is 10 years, the project is expected to reduce 446,150 tCO_{2e} annually.

The purpose of this CP renewal validation activity is to determine whether the project complies with the applicable rules and regulations and to see whether the project still can be eligible to be a VCS project activity.

The scope of the CP renewal validation is the independent and objective review of the VCS-PD against the relevant criteria. The main focus of the CP renewal validation team is to identify whether the project is still eligible to be a VCS project activity, whether to check the baseline scenario is still valid, whether to check the emission reduction calculations are handled correctly and to whether to be able to continue with the generation of VCUs through the emission reduction.

The CP renewal validation was performed on the basis of VCS criteria, Host Party criteria as well as the criteria of Clean Development Mechanism methodologies and tools. An online (remote) site visit was performed on 22/09/2022. During the validation 08 CARs were raised all of which have resolved before the finalization of the CP renewal validation.

The review of the Project Description (PD) and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence to determine the fulfillment of all stated criteria. In our opinion, the project meets all relevant VCS requirements. Therefore, Applus+ Certification recommends the renewal of CP of project by the VCS Program.

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1 INTRODUCTION

1.1 Objective

LGAI Technological Center, S.A. (hereafter referred to as Appplus+ Certification) has been appointed by “Sanko Enerji Sanayi ve Ticaret A.Ş.” to perform the crediting period (CP) renewal validation of the “Sanibey Dam and Hydroelectric Power Plant¹” with the service agreement dated 25/03/2022. The objective of this validation activity is to have an independent third party for the assessment of the project design, and to ensure a thorough assessment of the proposed project activity against the applicable VCS and CDM requirements. In particular;

- the project's baseline is assessed against “ACM0002 version 21.0: “Consolidated methodology for grid-connected electricity generation from renewable sources”
- the project’s monitoring plan is assessed against “ACM0002 version 21.0: “Consolidated methodology for grid-connected electricity generation from renewable sources”
- VCS Version 4.3
- VCS Program Guide version 4.2

CP renewal 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 verified carbon units (VCUs).

1.2 Scope and Criteria

The scope of the CP renewal validation is the independent and objective review of the VCS Project Description (PD). The PD is reviewed against the relevant criteria (please see section 1.1) and decisions by the VCS Organization, including the approved baseline and monitoring methodology. The validation was based on the guidance given in the CDM Validation and Verification Standard for project activities, version 3.0 and VCS Version 4.3.

The CP renewal validation team has employed a risk based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the PD. The main focus of the validation team is to identify whether the project is still eligible to be a VCS project activity, whether to check the baseline scenario is still valid, whether to check the emission reduction calculations are handled correctly and to whether to be able to continue with the generation of VCUs through the emission reduction. The validation is not meant to provide any consulting

¹ The name of the project is Yedigöze Hydroelectric Power Plant in the generation licence and provisional acceptance protocols. However, the project had been registered as “Sanibey Dam and Hydroelectric Power Plant” as confirmed through the initial registered PD, initial validation report, previous verification reports and VCS registry link of the project.

towards the project proponents. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project further implementation.

The only purpose of crediting period renewal validation is its usage during the crediting period renewal process as part of the VCS project cycle. Therefore, Applus+ Certification can't be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

1.3 Level of Assurance

Level of assurance of the validation report is defined as reasonable based on the handled validation process through the document review, online (remote) audit and the interviews.

1.4 Summary Description of the Project

Sanibey Dam and Hydroelectric Power Plant is operated by Sanko Enerji Sanayi ve Ticaret A.Ş. The project is located on Seyhan River in Adana city of Turkey. The project has the installation of two vertical axis Francis turbines with 155.33 MWe power capacity each, so it has a total capacity of 310.66 MWe in line with the electricity generation licence and provisional acceptance protocols and the project also supports the sustainable economic development in the region. The technical description of the project activity is as follows:

Table 1: Turbine and generator specifications

Component	Property
Turbine type	Francis - Vertical shaft
Turbine firm	Alstom
Number of turbines	2
Average flow rate	190 m ³ /s
Production year	2010
Number of turbines	2
Serial numbers of the turbines	AHT YED 01 & AHT YED 02
Installed capacity of each turbine	158.5 MWm / 155.33 MWe
Generator type	Three Phases Y2 VG 175-167
Generator firm	Alstom
Frequency	50 Hz
Production year	2010
Number of generators	2
Serial numbers of the generators	2VG 175-167

The project is in operation and started to produce electricity on 02/10/2010. The project fits in sectoral scope 1: Energy (Renewable Energy category).

The electricity generation of the proposed project is expected to be 966,530 MWh/year during the second crediting period. Since the project activity is a renewable energy project, it reduces greenhouse gases (GHGs) emissions that would have otherwise occurred in the absence of the project activity by avoiding electricity generation from fossil fuel sources. In the baseline scenario,

the electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants. Since Turkey's grid mainly consists of thermal power plants, this would have resulted in GHG emissions. However, in the project scenario, the project will continue to generate electricity from hydro power and will result in emission reductions in parallel with its electricity generation figures. The average annual emission reductions of the proposed project for the crediting period are estimated to be 446,150 tonnes of CO₂e (tCO₂e). The emission reduction calculations have been validated by the VVB via a detailed review and check.

The project does not participate under any emission trading program and other GHG Programs including renewable energy certificates (RECs) and this is also confirmed through the signed and sealed declaration by PP and dated as 17/11/2022.

Furthermore, double counting issue has also been assessed and the CP renewal validation team has also checked the I-REC Registry (<https://evident.services/device-register>) wherein in total 329 projects from Turkey are listed as of this CP renewal validation report date and this project isn't available within I-REC Registry database. Similarly, Gold Standard project database (<https://registry.goldstandard.org/projects?q=&page=1>) and GCC project database (https://projects.globalcarboncouncil.com/pages/submitted_projects) were checked and this project isn't available within Gold Standard and GCC projects' databases, either. Given that CDM projects are not applicable in Turkey and the project does not appear on domestic REC scheme, I-REC, Gold Standard and GCC registries, it could be confirmed that no RECs and other VER carbon credits are being issued for the project at the time of this CP renewal validation.

That means, the only other eligible GHG programs in the host country is Gold Standard and Global Carbon Council (GCC) and the certification program is Renewable Energy Certification (REC), and the project hasn't been listed in any of them, hence Applus+ Certification confirms that the project has not participated or been rejected under any other GHG programs since the initial validation.

2 VALIDATION PROCESS

2.1 Method and Criteria

The scope of the CP renewal validation is the independent and objective review of the PD and the baseline calculations together with the supporting documents that are listed in Appendix 1 of this report. This review is handled according to rules and regulations set forth in the applied methodology, associated tools, program standards, guidelines and procedures.

During the review, the project's compliance with the host country's relevant laws and regulations are also assessed and deemed as appropriate. As the project is a hydro power plant, no sampling was deemed necessary and the validation process includes the whole project.

Applus+ Certification validate that the reported information in the Project Description are complete and accurate in question. This involved online (remote) site visit and a desk review of the PD and associated supporting documents.

Similarly, according to the sectoral scopes / technical area and experiences in the sectoral or national business environment, Applus+ Certification has composed the CP renewal validation team in accordance with the appointment rules in Applus+ Certification. The composition of CP renewal validation team has to be approved by the Applus+ Certification ensuring that the required skills are covered by the team. The four qualification levels for team members that are assigned by formal appointment rules as below:

- Leader Auditor (LA)
- Auditor (A)/ Auditor Trainee (AT)
- Technical Reviewer (TR)
- Technical Experts (TE)

Name	Qualification	Coverage of scope	Coverage of Technical Area	Host country experience
Anıl Söyler	LA/TE	Y	Y (TA 1.2)	Y
Denny Xue	TR	Y	Y (TA 1.2)	Y

Mr. Anil Söyler has done Bsc. in Environmental Engineering. He has completed his Bachelor degree in Middle East Technical University, Turkey. He has about 20 years of professional experience in environmental management, monitoring and auditing, waste and waste water management, environmental and social impact assessment, GHG emission report and projects' validation and verification, environmental reports, team and client relationship management and quality management systems and has been involved in the validation/verification services of more than 100 GHG emission reduction projects in total. He has also been involved in both national and international projects supported by IFC, World Bank and EBRD.

Mr. Denny Xue (Master's Degree in Environmental Engineering, Bachelor's Degree in Thermal Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and technical review with Applus+. Before he joined Applus+ LGAI, he had been working for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development.

2.2 Document Review

The basis for the validation activity is the PD version 01, dated 29/07/2022 which was submitted to the validation team on the 10/09/2022. This PD was revised due to the raised CARs and CLs, version 02.2 dated 29/11/2022 being the final version. The PD was assessed against;

- the project's baseline is assessed against “ACM0002-Version 21.0: “Consolidated methodology for grid-connected electricity generation from renewable sources” and
- 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
- the project's monitoring plan is assessed against “ACM0002-Version 21.0: “Consolidated methodology for grid-connected electricity generation from renewable sources”
- CDM Validation and Verification Standard version 3.0
- VCS version 4.3
- VCS Program Guide version 4.2
- the Host Country criteria

The list of the documents which were reviewed during the CP renewal validation process is given in the Appendix 1 of the report.

2.3 Interviews

During the CP renewal validation period, follow-up interviews were realized by the validation team to further analyze the correctness and accurateness of the information provided.

The list of people who were interviewed during the CP renewal validation process is given in the Table 2 below:

Table 2: List of persons interviewed

Reference Number	Means of Interview ²	Full Name	Title	Organization
I01	Online SV	Zafer Karakuzulu	Plant Manager	Sanko Enerji Sanayi ve Ticaret A.Ş.
I02	Online SV	Recep Pınar	Administrative Staff	Sanko Enerji Sanayi ve Ticaret A.Ş.
I03	Online SV	Müge Afacan Ural	Consultant	Gaia Finansal Danışmanlık Hizmetleri Tic. Ltd. Şti.
I04	Online SV	Buse Garipler	Consultant	Gaia Finansal Danışmanlık Hizmetleri Tic. Ltd. Şti.
I05	Online SV	Halil Ünal	Mukhtar (Village Head)	Eğner Village
I06	Online SV	Fatma Ünal	Villager	Eğner Village
I07	Online SV	Ali Şahin	Mukhtar (Village Head)	Boztahta Village
I08	Online SV	Hızır Taşçı	Mukhtar (Village Head)	Uluçınar Village
I09	Online SV	Sabahat Taşçı	Villager	Uluçınar Village

2.4 Site Inspections

As a part of the verification activities an online (remote) site visit using remote audit techniques (by means of Information and Communication Technology (ICT) was executed to the project activity's location, details of which can be seen in Table 3 below:

Table 1: Online (remote) site visit details

Date	22/09/2022	
Location	Online (remote) site visit through Zoom program	
Participant	Company Name	Role in the Organization / Role in the Online Site Visit

² SV: Site visit; T: Telephone; E: E-mail

Zafer Karakuzulu	Sanko Enerji Sanayi ve Ticaret A.Ş.	Plant Manager
Recep Pınar	Sanko Enerji Sanayi ve Ticaret A.Ş.	Administrative Staff
Müge Afacan Ural	Gaia Finansal Danışmanlık Hizmetleri Tic. Ltd. Şti.	Consultant
Buse Garipler	Gaia Finansal Danışmanlık Hizmetleri Tic. Ltd. Şti.	Consultant
Halil Ünal	Eğner Village	Mukhtar (Village Head)
Fatma Ünal	Eğner Village	Villager
Ali Şahin	Boztahta Village	Mukhtar (Village Head)
Hızır Taşçı	Uluçınar Village	Mukhtar (Village Head)
Sabahat Taşçı	Uluçınar Village	Villager
Points Verified		Source of Information
To check the project development and operation including monitoring process		Document review and online (remote) site visit
To interview with the local stakeholders about the project and its impacts		Online (remote) site visit and interviews with the local stakeholders from Boztahta, Eğner and Uluçınar Villages
To confirm rightness of project description, as per PD including project components and location		Document review, online (remote) site visit and interviews with the local stakeholders from Boztahta, Eğner and Uluçınar Villages

The project owner representatives and local stakeholders had been interviewed as in above during the remote audit using Zoom program and some photographic evidences like electricity meters, waste storage areas etc. have been taken along with the document review process to achieve the reasonable level of assurance during the CP renewal validation as detailed in other sections of the report.

2.5 Resolution of Findings

In line with Applus+ Certification's internal terminology and VCS Version 4.3, the team reports the non-conformities in the forms of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs).

When and for which type of non-conformities CARs, CLs and FARs are issued are explained below. The Validation team raises a **CAR** 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
- The CDM and/or VCS requirements have not been met
- There is a risk that emission reductions cannot be monitored or calculated.

The Validation team raises a **CL** if information is insufficient or not clear or not transparent enough to determine whether the applicable CDM and/or VCS requirements have been met.

The Validation team raises a **FAR** during validation to highlight issues related to project implementation that require review during the first verification of the second crediting period of the project activity.

According to these principles total of 08 CARs were raised all of which are listed in Appendix 2. There hasn't been any CLs and FARs raised during the CP renewal validation.

2.5.1 Forward Action Requests

The validation team raises a FAR during the CP renewal validation to highlight issues related to project implementation that require review during the first verification of the second crediting period of the project activity as explained in the Section 2.5.

According to these principles, there hasn't been any FARs raised during the CP renewal validation.

3 VALIDATION FINDINGS

3.1 Project Details

Sanibey Dam and Hydroelectric Power Plant is owned and operated by Sanko Enerji Sanayi ve Ticaret A.Ş. which is the project proponent. The project is located on Seyhan River in Adana city of Turkey. The project has the installation of two vertical axis Francis turbines with 155.33 MWe power capacity each, so it has a total capacity of 310.66 MWe in line with the electricity generation licence and provisional acceptance protocols.

The project scale is large scale project in line with VCS rules and requirements due to its total capacity (310.66 MWe) and estimated annual GHG emission reductions amount (446,150 tCO₂e) and since the project is a greenfield project activity, pre-project conditions are same with the baseline scenario as discussed in the Section 3.3.4 of this report. The installed capacity and the expected annual generation amount of the project have been checked through the provisional acceptance protocols dated as 02/12/2010 and 26/01/2011 and the electricity generation licence dated as 22/06/2006 (initial issuance), respectively.

The project start date of the project activity is the initial date of selling of the produced electricity which is 02/12/2010 and the project is in compliance with the Turkish regulations. The crediting period of the project activity is renewable crediting period of 10 years which can be renewed one more time since this will be the second crediting period of the project. The project's expected technical lifetime is 35 years as confirmed through the registered PD and initial validation report.

The proposed project's net GHG emission reductions or removals will neither be used for compliance with an emissions trading program or to meet binding limits on GHG emissions, nor for other forms of environmental credit. The project has neither been registered, nor is seeking registration under any other GHG programs other than VCS under VER scheme.

The project has been contributing to SDG-7 through net electricity generation by renewable source, SDG-8 through employment and SDG-13 through GHG emission reduction and such actual contributions will be checked during the second crediting period.

Besides that, there hasn't been any stated commercially sensitive information by the PP at the time of CP renewal validation except for the social and financial aids by PP due to the ethical reasons.

Through document review and interviews during the online (remote) site visit, Applus+ Certification confirms that the description provided of the project is accurate, complete, and provides an understanding of the nature of the project.

3.2 Safeguards

3.2.1 No Net Harm

There hadn't been any observed significant environmental and social impact of the project activity as indicated in the initial registered PD and revised PD for the second crediting period and this was also confirmed through the reviewed documents and online (remote) site visit in as detailed in Sections 3.2.2 and 3.2.3 of the report.

3.2.2 Local Stakeholder Consultation

There hasn't any additional local stakeholder consultation meeting handled by PP at the time of renewal of crediting period process.

There hadn't been any complaint raised by the interviewed local stakeholders during the online (remote) site visit as detailed in Sections 2.3 and 2.4 of the report.

The local stakeholders as stated in the Table 2 above were interviewed on 22/09/2022 about the following issues and there hadn't been any complaint by the interviewed local stakeholders during the online (remote) site visit:

- Noise due to the project activity
- Impact on the aquatic life where the project had been constructed
- Sufficiency of local employment (The interviewed local stakeholders were pleased about the provided local employment opportunities by the PP)
- Waste management practices implemented by PP

It was also concluded that the grievance mechanism is in place and this was also confirmed by the interviewed local stakeholders during the online (remote) site visit. The signed request/proposal forms by the local stakeholders from Boztahta, Eğner and Uluçınar Villages and dated as 10/01/2019, 21/04/2019, 15/10/2019, 21/11/2019, 16/12/2019, 03/02/2020, 18/05/2020, 04/01/2021 and 05/01/2021 were also provided to VVB.

CAR-05 was issued regarding the current status and method of the ongoing communication with the local stakeholders and it had been closed as detailed in Annex 2.

3.2.3 Environmental Impact

The EIA positive decision dated as 06/06/2007 by the General Directorate of Environmental Impact Assessment and Planning of Ministry of Environment and Forestry was also provided by the PP.

Besides that, the photos of waste storage areas and the hazardous waste disposal records dated as 26/11/2015, 05/05/2016, 20/12/2016, 09/01/2017, 12/03/2018 and 25/10/2019 and waste water transfer and disposal record dated as 16/12/2018, 27/04/2019 and 05/06/2020 have been provided by the PP.

3.2.4 Public Comments

The public comment process hasn't been handled by PP since this is CP renewal validation process. However, the local stakeholder consultation details have been provided in the Section 3.2.2 of the report.

3.2.5 AFOLU-Specific Safeguards

Not applicable as the project isn't AFOLU project.

3.3 Application of Methodology

3.3.1 Title and Reference

The project activity was earlier registered using the methodology ACM0002 version 12.1.0. The PD has been updated using the latest approved version of the methodology ACM0002 version 21.0. The PPs have used the most recent version of the same methodology as the initial registered PD, i.e., the version that is valid at the time of submission of the revised PD for the renewal of the crediting period.

The project activity applies the following methodology and the associated tools:

- ACM0002 version 21.0: "Grid-connected electricity generation from renewable sources"
- Tool 01: Tool for the demonstration and assessment of additionality, version 07.0
- Tool 07: Tool to calculate the emission factor for an electricity system, version 07.0
- 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

According to ACM0002 version 21.0, the latest approved tools shall be referenced in the PD like, "Tool to calculate the emission factor for an electricity system" version 07.0, "Tool for the demonstration and assessment of additionality" version 07.0 and "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 which are the latest versions of the mentioned tools valid at the starting time and the above tools are applied to in the PD. Therefore, it could be concluded by the CP renewal validation team that the title, version and reference of the methodology including the associated tools are correct and valid.

3.3.2 Applicability

The CP renewal validation team has assessed the relevant information contained in the PD through the online (remote) site visit and evidence obtained against the application criteria listed in the applied methodology. The applicability of this methodology is justified as below:

- The project activity is a greenfield, renewable (hydro power) electricity generation project, connected to the Turkish national grid
- The project activity is the installation of hydro power plant
- The project does not involve capacity addition, a retrofit of (an) existing plant(s) or a replacement of (an) existing plant(s)
- Project activity does not involve switching from fossil fuels to renewable energy sources at the site of project activity
- The project does not involve combined heat and power generation activity
- The geographic and system boundaries for the Turkish national electricity grid can be clearly identified and information on the characteristics of the grid is available.

The applicability of the methodology (ACM0002 version 21.0) and its assessment has also been included in Table 4 below:

Table 4: The applicability of the methodology (ACM0002 version 21.0) and its assessment

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
This methodology is applicable to grid-connected renewable energy power generation project activities that: <ul style="list-style-type: none"> (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s). 	The project is the installation of a hydro power project. Therefore, (a) is applicable.	Through the online (remote) site visit, checking the generation licence of the project and through the local knowledge of the CP renewal team, it is confirmed that the project is a greenfield power plant.
In case the project activity involves the integration of a Battery Energy Storage System (BESS), the methodology is applicable to grid-connected renewable energy	The project does not involve BESS, so this is not applicable.	Through the online (remote) site visit, checking the generation licence and provisional acceptance protocols of the project, it is

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
<p>power generation project activities that:</p> <ul style="list-style-type: none"> (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); (c) (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) (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s). 		<p>confirmed that the project does not involve BESS.</p>
<p>The methodology is applicable under the following conditions:</p> <ul style="list-style-type: none"> (a) 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 	<p>The project activity includes a hydro power plant with the reservoir. Therefore, (a) is applicable.</p>	<p>Through the online (remote) site visit and checking generation licence and provisional acceptance protocols, it is confirmed that the project is a Greenfield hydro power plant with the reservoir and does not involve BESS.</p>

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
<p>five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.</p> <p>(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);</p> <p>(d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s).</p>		
<p>In case of hydro power plants, one of the following conditions shall apply:</p> <p>(a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or</p> <p>(b) The project activity is implemented in existing single or multiple reservoirs, where</p>	<p>The project activity results in new single reservoir and the power density calculated is 21.73 W/m² at the start of the second crediting period, which is greater than 4 W/m² as in option (c).</p>	<p>Through the online (remote) site visit and checking registered initial PD, initial validation report and previous verification reports, it is confirmed that the power density of the project is 21.73 W/m² greater than 4 W/m².</p>

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
<p>the volume of the reservoir(s) is increased and the power density, calculated using equation (7), is greater than 4 W/m²; or</p> <p>(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</p> <p>(d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m², all of the following conditions shall apply:</p> <p>(i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m²;</p> <p>(ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity;</p> <p>(iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m² shall be:</p>		

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
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.		
<p>In the case of integrated hydro power projects, project proponent shall:</p> <p>(a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or</p> <p>(b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and</p>	<p>This is not applicable since the project is not an integrated hydro power project.</p>	<p>Through the online (remote) site visit and checking registered initial PD, initial validation report and previous verification reports and generation licence of the project, it is confirmed that the project is not an integrated hydro power project, so this is not applicable.</p>

Applicability Criteria	Analysis	CP Renewal Validation Team's Assessment
<p>rainfall for minimum of five years prior to the implementation of the CDM project activity.</p>		
<p>The methodology is not applicable to:</p> <p>(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;</p> <p>(b) Biomass fired power plants/units.</p>	<p>The project activity does not involve switching from fossil fuel to renewable energy sources at the site of the project activity.</p> <p>The project is not a biomass fired power plant/unit.</p>	<p>Through the online (remote) site visit and checking registered initial PD, initial validation report and previous verification reports and generation licence of the project, it is confirmed that the project is a greenfield power plant and does not involve in switching from fossil fuel to renewable energy and biomass fired power plant.</p>
<p>In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".</p>	<p>This is not applicable since the project is not retrofit, rehabilitation, replacement, or capacity addition project.</p>	<p>Through the online (remote) site visit and checking registered initial PD, initial validation report and previous verification reports and generation licence of the project, it is confirmed that the project is a greenfield power plant and does not include retrofit, rehabilitation, replacement, or capacity addition.</p>

Tool 01: Tool for the demonstration and assessment of additionality, version 07.0 is not applicable at the time of crediting period renewal process since the project's additionality had been checked during the initial validation of the project activity and the project was found to be as additional at that time and there is no need new additionality assessment analysis at this stage.

Tool 07: Tool to calculate the emission factor for an electricity system, Version 07.0 has not been used directly since the operating margin (OM) emission factor (EF_{grid,OM,y}) and build margin (BM) emission factor (EF_{grid,BM,y}) had been calculated by the Ministry of Energy and Natural Resources in Turkey as detailed in the Sections 3.3.4 and 3.3.6 of this report and only combined margin emission factor (EF_{grid,CM,y}) had been calculated by PP using the default values of 0.25 and 0.75 for OM and BM, respectively in line with the “Tool 07: Tool to calculate the emission factor for an electricity system” version 07.0.

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 has been checked and assessed in the Section 3.3.4 of this report.

Therefore, Applus+ Certification confirms that the selected baseline methodology including the associated tools is applicable to the project activity, the applicability criteria of the methodology and associated tools have been met and ACM0002 version 21.0 will be valid at the time of submission of the project activity for CP renewal.

3.3.3 Project Boundary

As clearly defined in the revised PD, the project boundary encompasses the physical, geographical site of the renewable generation source. The hydro power plant with all installation is the project boundary and this had been validated through the document review including the applied methodology (ACM0002 version 21.0) and during the online (remote) site visit.

The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the VCS project power plant is connected to as defined clearly in the applied methodology and there is no need for the further analysis.

As the project activity is connected to Turkish national grid, the baseline boundary is defined as the Turkish national grid. This includes the project site and all power plants connected physically to the Turkish national grid and there are no off-grid power plants in Turkish grid.

The baseline emission source is CO₂ and fossil fuels fired for electricity generation cause CO₂ emissions which is the main source. It is included to baseline calculation to find the displaced amount by the project activity. The other sources and gases are minor sources and excluded due to the simplification in line with the applied methodology.

The sources and GHG gases involved in the project activity are as follows in Table-5 below:

Table 5: The sources and GHG gases involved in the project activity

Source		Gas	Included?	Justification/Explanation
Baseline		CO ₂	Yes	Main emission source

Source		Gas	Included?	Justification/Explanation
	Grid connected electricity generation	CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
		Other	No	No other emissions are emitted from the project
Project	Greenfield hydropower project activity	CO ₂	No	No CO ₂ emissions are emitted from the project
		CH ₄	No	The power density of the reservoir is 21.73 W/m ² which is greater than 10 W/m ²
		N ₂ O	No	Project activity does not emit N ₂ O
		Other	No	Project activity does not emit other forms of GHG emissions

As a result, Applus+ Certification confirms that the project boundary and associated GHG sources have been clearly and correctly identified in the PD by the PP and will be valid during the second crediting period.

CAR 06 (option c) was issued regarding the project boundary and it had been closed as detailed in Appendix 2.

3.3.4 Baseline Scenario

The project activity was earlier registered using the methodology ACM0002 version 12.1.0. The PD has been updated using the latest approved version of the methodology which is ACM0002 version 21.0. All the applicability conditions of the methodology have been justified appropriately in the revised PD, version 02.2 and dated as 29/11/2022.

There has been no significant change in the relevant policies and circumstances, which would impact the baseline scenario since 06/10/2009 (date of initial validation) till date. The earlier registered PD takes into account all the relevant national and sectoral policies and circumstances that were applicable as on date. The discussion on the same has also been provided in the revised PD for the second crediting period.

CAR 06 (option d) was issued regarding the baseline scenario and it had been closed as detailed in Appendix 2.

The steps from the Methodological Tool “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period” version 03.0.1 as per VCS standard version 4.3 were also applied to assess the continued validity of the baseline and/or to update the baseline at the renewal of a crediting period:

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

VCS standard version 4.3 requires assessing the impact of new relevant national and/or sectoral policies and circumstances on the baseline. 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

Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy, No: 5346, ratified on 10/05/2005 by Grand National Assembly of Turkey, enacted on 18/05/2005, Electricity Market Law, No: 6446, ratified on 14/03/2013 by Grand National Assembly of Turkey, enacted on 30/03/2013 and Environment Law, No: 2872, ratified on 09/08/1983 by Grand National Assembly of Turkey, enacted on 11/08/1983 have been still applicable in Turkey and there are no significant changes which can impact the baseline scenario. There are no new relevant national and/or sectoral policies and/or circumstances in the electricity generation sector applicable to the project activity, in comparison to the time of the submission of the project activity for validation, which would affect the compliance of the current baseline scenario. Therefore, in the absence of the project activity electricity would still have been generated in the existing fossil fuel power plants or by the addition of new fossil fuel power plants connected to the Turkish grid.

Applus+ Certification confirms that no relevant mandatory national and/or sectoral policies applicable to the project activity came into effect after the submission of the project activity for validation.

Step 1.2: Assess the impact of circumstances

Through the document review including the revised PD for the second crediting period and local and sectoral knowledge of the CP renewal validation team, it could be confirmed that the electricity generation is predominantly composed by fossil fuel fired power plants in Turkey which is the same situation at time of initial validation. Therefore, the main market characteristics have no change. As the project is under normal operation which is in line with the original design thereby the condition used to determine baseline emissions in the initial crediting period is still valid.

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

No new additional investment from the project proponent or a third party (or parties) has been envisioned later specifically for the project. There is no change with respect to the technology and installed capacity of the project. Therefore, it could be confirmed by the CP renewal validation team that the baseline scenario in the initial crediting period is still valid and this step is not applicable.

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

The grid emission factor ($EF_{grid,CM,y}$) calculated ex-ante for the first crediting period needs to be updated, as per the “Tool to calculate the emission factor for an electricity system” version 07.0.

Conclusion on step 1:

Applus+ Certification confirms that the current baseline is still valid as per methodology ACM0002 version 21.0. However, the grid emission factor ($EF_{grid,CM,y}$) needs to be updated for the subsequent crediting period.

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

Step 2.1: Update the current baseline

As the baseline scenario of the project activity is still sustained in this crediting period, no update would be required.

Step 2.2: Update the data and parameters

For the calculation of grid emission factor ($EF_{grid,CM,y}$) in Turkey “TOOL7: Tool to Calculate the Emission Factor for an Electricity System”, version 07 has been used and the same has been published by the relevant governmental authority, Ministry of Energy and Natural Resources in Turkey and the latest data belongs to 2020.

The operating margin (OM) emission factor ($EF_{grid,OM,y}$) is calculated as 0.7424 tCO₂/MWh by the Ministry of Energy and Natural Resources in Turkey as in the following link:

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

Similarly, build margin (BM) emission factor ($EF_{grid,BM,y}$) is calculated as 0.3680 tCO₂/MWh by the Ministry of Energy and Natural Resources in Turkey as in the following link:

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

Finally, the combined margin emission factor ($EF_{grid,CM,y}$) has been calculated by PP using the default values of 0.25 and 0.75 for OM and BM, respectively in line with the “Tool 07: Tool to calculate the emission factor for an electricity system” version 07.0 and the same ($EF_{grid,CM,y}$) is calculated as 0.4616 tCO₂/MWh for the second crediting period.

That means, VVB has checked the application of the aforesaid tool and confirms that it has been correctly applied.

VVB also confirms that the Turkish grid emission factor has been calculated to be in line with the “Tool to calculate the emission factor for an electricity system”, version 07.0.

As a result, it can be concluded that the baseline scenario has not changed and continues to be the same as earlier, as follows: “Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources” during the second crediting period.

3.3.5 Additionality

The project's additionality had been checked during the initial validation of the project activity and the project was found to be as additional at that time.

Applus+ Certification can also confirm that there is no law or any other regulation in Turkish legislation including Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electricity Energy, No: 5346, ratified on 10/05/2005 by Grand National Assembly of Turkey, enacted on 18/05/2005, Electricity Market Law, No: 6446, ratified on 14/03/2013 by Grand National Assembly of Turkey, enacted on 30/03/2013 and Environment Law, No: 2872, ratified on 09/08/1983 by Grand National Assembly of Turkey, enacted on 11/08/1983 that mandates such power plants to be built so the project investment is voluntary and it can be concluded that regulatory surplus is demonstrated by PP appropriately.

CAR 06 (options e and f) was issued regarding the additionality and regulatory surplus and this CAR had been closed as detailed in Appendix 2.

3.3.6 Quantification of GHG Emission Reductions and Removals

a) **Baseline Emissions:**

The emission reduction calculation estimations have been included in the PD in line with the latest approved version of the methodology ACM0002 version 21.0. The baseline emissions are calculated based on the combined margin emission factor multiplied by the expected net electricity generation, which amounts to 446,150 tCO_{2e} per annum as in below:

$$BE_y = EG_y * EF_{grid,CM,y}$$

Where:

BE_y = Baseline emissions in year y (tCO₂/yr)

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

$EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using TOOL07 (tCO₂/MWh)

The expected net annual electricity generation is 966,530 MWh as confirmed through the electricity generation licence and initial validation report, version 06 dated as 03/05/2012.

The operating margin (OM) emission factor ($EF_{grid,OM,y}$) is calculated as 0.7424 tCO₂/MWh by the Ministry of Energy and Natural Resources in Turkey as in the following link:

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

Similarly, build margin (BM) emission factor ($EF_{grid,BM,y}$) is calculated as 0.3680 tCO₂/MWh by the Ministry of Energy and Natural Resources in Turkey as in the following link:

<https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf>

Finally, the combined margin emission factor ($EF_{grid,CM,y}$) has been calculated by PP using the default values of 0.25 and 0.75 for OM and BM, respectively in line with the “Tool 07: Tool to calculate the emission factor for an electricity system” version 07.0 and the same ($EF_{grid,CM,y}$) is calculated as 0.4616 tCO₂/MWh for the second crediting period.

Therefore,

$$BE_y = 966,530 \text{ MWh} * 0.4616 \text{ tCO}_2\text{e/MWh} = 446,150 \text{ tCO}_2\text{e}$$

b) Project Emissions:

According to the applied methodology, for hydropower plants if the power density of the reservoir is higher than 10 W/m², then $PE_y = 0$. The power density of the project 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 single or multiple reservoirs 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 single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m²). For new reservoirs, this value is zero

The project activity is a green field run-of-river hydropower project, so Cap_{BL} and A_{BL} are equal to zero.

For Sanibey Dam and Hydroelectric Power Plant:

A_{PJ} = 14,299,206 m² (according to the registered PD and validation report and previous verification reports)

Cap_{PJ} = 310,660,000 W

The power density is calculated as follows:

$$PD = 310,660,000 / 14,299,206 = 21.73 \text{ W/m}^2$$

As the power density is higher than 10W/m^2 , the project emissions of the project are equal to zero.

Similarly, according to ACM0002, version 21.0, for all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generators can be neglected.

c) Leakage:

The leakage can be neglected in line with the applied methodology, ACM0002 version 21.0.

d) Emission Reductions:

The emission reductions are calculated as:

$$ER_y = BE_y - PE_y$$

Where,

ER_y = Emission Reduction in year y (tCO₂/ year)

BE_y = Baseline emission in year y (tCO₂/ year)

PE_y = Project emission in year y (tCO₂/ year)

Since both project emissions and leakage are equal to zero, the emission reductions generated are equal to baseline emissions.

$$ER_y = 446,150 - 0$$

$$ER_y = 446,150 \text{ tCO}_2\text{e}$$

That means, the project is expected to result in an average emission reduction of 446,150 tCO₂e/year during the second crediting period. Total emission reductions during the second crediting period are estimated to be 4,461,500 tCO₂e.

CAR 07 was issued regarding the emission reduction calculations and this CAR had been closed as detailed in Appendix 2.

Applus+ Certification confirms that the methodology ACM0002 version 21.0 and “Tool to calculate the emission factor for an electricity system” version 07.0 have been correctly applied to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals. The estimation of the emission reductions are considered correct as the calculations have been reproduced by the CP renewal validation team with the attainment of the same results.

3.3.7 Methodology Deviations

No methodology deviations have been applied to the project.

3.3.8 Monitoring Plan

According to ACM0002 version 21.0, one of the parameters required to be monitored is the quantity of net electricity generation supplied by the project plant/unit to the grid in year y , $EG_{\text{facility},y}$, which will be continuously measured and recorded at least monthly.

The net electricity generation will be based on measured value of electricity export and import and recorded via meters sealed by TEIAS (the grid company) for billing purposes therefore no new additional protocol will be needed for monitoring emission reduction. According to meter reading protocols, the internal consumption of the facility was subtracted from the gross generation. EPIAS records will be used as the main source for the quantity of net electricity delivered to the grid, and it has been cross checked with the meter reading records (OSF forms) provided to the company by TEIAS.

The site electricity technicians and plant manager will be responsible for the electricity generated, gathering all relevant data and keeping the records.

There are two feeders and four electricity meters, for each feeder one main meter and one back up meter. All meters are inspected and sealed by TEIAS before the commissioning of the power plant in order to be protected from interference by any of the parties and the relevant information about the electricity meters including the serial numbers have been provided by the PP. Installation of the meters and data monitoring will be carried out according to the relevant regulation by TEIAS which will record the meter readings via EPIAS system and through remote reading. The main data source will be EPIAS data and TEIAS meter records will be used for cross checking purpose.

The details about the currently available electricity meters are as follow as in the Table 6 below:

Table 6: Electricity meter details

Feeder No.	Model	Serial Number	Accuracy Class
1	EMH	Main Meter: 8923679	Main Meter: 0.2s
	EMH	Back-up Meter: 8923680	Back-up Meter: 0.2s
2	EMH	Main Meter: 8923681	Main Meter: 0.2s
	EMH	Back-up Meter: 8923682	Back-up Meter: 0.2s

All data will be kept for at least two years after the crediting period for QA/QC purposes. The calibration and maintenance of the meters will be carried out in line with the “Regulation of Metering and Testing of Metering Systems”. The meters will be calibrated by TEIAS when there is an inconsistency between main and back-up meters. Although, re-calibration is required after ten

years, nevertheless, in case of irregular difference between main and cross-check spare meters, the relevant TEIAS staff is informed for the intervention.

The second parameter to be monitored is installed capacity (Cap_{PJ}) of the project. The parameter is monitored once at each monitoring period by supplier information on the equipment and turbine name plates. It has been validated during the CP renewal validation through the provisional acceptance protocol, the turbine name plates' documents and online (remote) site visit that the installed capacity is 310.66 MWe as indicated in the PD.

The third and final parameter to be monitored is the area of the reservoir (A_{PJ}) is monitored via topographical surveys, maps and satellite pictures. It has been validated that the reservoir area has been checked during the CP renewal validation through the reservoir layout drawing of the project as in the initial registered PD, validation process and previous verification process and the reservoir area is taken as 14,299,206 m².

CAR 08 was raised regarding the monitoring during the CP renewal validation and it had been closed as detailed in Appendix 2.

Therefore, Applus+ Certification can confirm that the list of parameters that need to be monitored ex post for the second crediting period is complete and consistent with the relevant applied methodology which is ACM0002 version 21.0.

By document review and online (remote) site visit observations, it is also confirmed by the validation team that the monitoring plan can be properly implemented, all monitoring arrangements are feasible within the project design, and the means of implementation of the monitoring plan, including data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions to be achieved by the project activity can be properly reported and verified.

3.4 Non-Permanence Risk Analysis

N/A (The project is not an AFOLU project).

4 VALIDATION CONCLUSION

Applus+ Certification has performed the CP renewal validation of the “Sanibey Dam and Hydroelectric Power Plant” (VCS project ID: 1100) between 25/03/2022 and 30/11/2022. The validation was performed on the basis of VCS criteria, UNFCCC criteria for the CDM and Host Party criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project activity was checked against the applicable rules and regulations of CDM including CDM Validation and Verification Standard version 03 and VCS Version 4.3 by the CP renewal validation team.

Applus+ Certification hereby confirms that the proposed project activity “Sanibey Dam and Hydroelectric Power Plant” has applied all relevant applicable guidance documents as the selected baseline methodology and the associated methodological tools have been applied correctly. Total emission reductions from the project are estimated to be on the average 446,150 tCO_{2e} per year and a total estimated emission reduction of 4,461,500 tCO_{2e} over the selected 10 year second crediting period. The emission reduction calculations have been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

As a result, Applus+ Certification also concludes that the proposed project activity “Sanibey Dam and Hydroelectric Power Plant”, as described in the PD, version 02.2 and dated as 29/11/2022:

- meets all relevant Host Country criteria;
- meets all relevant requirements of the VCS and CDM project activities including VCS Version 4.3
- applies correctly the baseline and monitoring methodology ACM0002 version 21.0;
- is likely to achieve estimated emission reductions;

Therefore, Applus+ Certification requests the renewal of crediting period of the project activity.

APPENDIX 1: REFERENCE LIST

Document Number	Document/Evidence/Reference/Web link, Version, Date
D01	Registered Initial PD version 08 dated 03/05/2012
D02	Final Initial Validation Report version 06 dated 03/05/2012
D03	Second Verification Final Report version 02 dated 04/08/2021
D04	ACM0002: Grid-connected Electricity Generation from Renewable Sources version 21.0
D05	CP Renewal Service Agreement dated 25/03/2022
D06	Revised PD version 01 dated 29/07/2022
D07	Revised PD version 02 dated 18/11/2022
D08	Revised PD version 02.1 dated 25/11/2022
D09	Final PD version 02.2 dated 29/11/2022
D10	ER Calculation Excel Sheet version 01 dated 29/07/2022
D11	ER Calculation Excel Sheet version 02 dated 18/11/2022
D12	ER Calculation Excel Sheet version 03 dated 25/11/2022
D13	CDM Validation and Verification Standard for project activities version 3.0
D14	VCS Standard version 4.3 dated 22/06/2022
D15	VCS Program Guide version 4.2 dated 22/06/2022
D16	EIA Positive Decision dated 06/06/2007
D17	EIA Report (Including Non Obligation Regarding Life Line Water Measurements and Fish Passage, Pages 139 and 140) dated 05/2007
D18	Electricity Generation Licence dated 22/06/2006 (Initial Issuance) and dated 25/06/2009 (Last Amendment)
D19	Electricity Meters Test Reports for Current Meters dated 26/10/2019 and 19/12/2020
D20	Electricity Meters Photos
D21	Waste Water Storage Tank Photos
D22	Hazardous Waste Storage Area Photos
D23	Domestic Waste Container Photos
D24	Sample Hazardous Waste Transfer and Disposal Records dated 09/01/2017, 12/03/2018 and 25/10/2019
D25	Sample Wastewater Disposal Records dated 16/12/2018, 27/04/2019 and 05/06/2020

Document Number	Document/Evidence/Reference/Web link, Version, Date
D26	Signed Declaration by the PP (About Double Counting) dated 15/10/2021
D27	Signed Declaration by the PP (About Renewable Energy Certification (REC) dated 15/10/2021
D28	Turbine and Generator Nameplates
D29	Sample Signed Request/Proposal Forms by the Local Stakeholders from Boztahta, Eđner and Uluçınar Villages dated 03/02/2020, 18/05/2020, 04/01/2021 and 05/01/2021
D30	Provisional Acceptance Protocols dated 02/12/2010 and 26/01/2011
D31	Reservoir Area Layout
D32	Trade Registry Gazette (About Project Ownership) dated 28/09/2012
D33	Site Photos dated 22/09/2022

APPENDIX 2 CLARIFICATION REQUESTS (CLS), CORRECTIVE ACTION REQUESTS (CARS), FORWARD ACTION REQUESTS (FARS)

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Anıl Söyler	Ref. to checklist	-
Description of the audit finding		Date:	04/11/2022
a) Please provide all items in the box at the bottom of the cover page completed using Arial 10.5 pt, black, regular (non-italic) font in line with the relevant PD template. b) Please provide PD with the appropriate font size and colour in line with the relevant PD template including Content part. c) Please clarify if there is Annex in the PD.			
Project Participant's response		Date:	18/11/2022
a) Revised b) Revised c) There is no annex in the PD.			
Documentation provided as evidence by Project Participant			
Revised PD			
Auditor's assessment comment		Date:	22/11/2022
a) Ok Closed (The cover page of the PD has been revised accordingly). b) Ok Closed (PD has been revised accordingly). c) Ok Closed (PD has been revised accordingly).			

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please correct the ER calculation in the ER Calculation Excel spreadsheet considering latest available published data and latest applicable version of "Tool to calculate the emission factor for an electricity system".			

b) Please provide the reference source for annual generation value in the ER Calculation Excel spreadsheet and in the PD. c) Please provide the reference source for $EF_{grid.0M,y}$, $EF_{grid.BM,y}$ and $EF_{grid.CM,y}$ values in the ER Calculation Excel spreadsheet. d) Please correct ER calculation considering number of days for 2020 and 2030 vintages. e) Please correct all ER values throughout the PD accordingly.		
Project Participant's response	Date:	18/11/2022
a) ER calculation corrected with the latest EF value. b) Generation Licence has been provided. c) Source sheet added to ER Calculation excel. d) Revised. e) Revised.		
Documentation provided as evidence by Project Participant		
Revised ER Calculation Excel Spreadsheet and PD		
Auditor's assessment comment	Date:	22/11/2022
a) Ok Closed (ER Calculation Excel spreadsheet has been revised accordingly). b) Ok Closed (MR and ER Calculation Excel spreadsheet have been revised accordingly). c) d) Ok Closed (ER Calculation Excel spreadsheet has been revised accordingly). e) Ok Closed (PD has been revised accordingly).		

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	03
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please correct the sectoral scope name in the Section 1.2 of the PD. b) Please correct the scale of the project in the Section 1.10 of the PD. c) Please include the generator details in the Section 1.11 of the PD. d) Please include turbine serial numbers and MWm and MWe capacities in the Section 1.11 of the PD. e) Please remove unnecessary details in the Section 1.11 of the PD. f) Please include the reference source for the provided technical details of the project in the Section 1.11 of the PD. g) Please include the reference source for the provided coordinates in the Section 1.12 of the PD. h) Please revise the Section 1.13 in line with the relevant PD template.			
Project Participant's response		Date:	18/11/2022
a) Revised b) Revised c) Included			

d) Included e) Revised f) Included g) Included h) Revised		
Documentation provided as evidence by Project Participant		
Revised PD		
Auditor's assessment comment	Date:	22/11/2022
a) Ok Closed (Section 1.2 of the PD has been revised accordingly). b) Ok Closed (Section 1.10 of the PD has been revised accordingly). c) Ok Closed (Section 1.11 of the PD has been revised accordingly). d) e) f) Ok Closed (Section 1.11 of the PD has been revised accordingly). g) Ok Closed (Section 1.12 of the PD has been revised accordingly). h) Ok Closed (Section 1.13 of the PD has been revised accordingly).		

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	04
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding	Date:	04/11/2022	
a) Please provide the signed and sealed declaration by PP on company letterhead that the project hasn't been registered, or hasn't been seeking registration under any other GHG programs. b) Please provide the signed and sealed declaration by PP on company letterhead that project hasn't been included in an emissions trading program; or any other mechanism that includes GHG allowance trading.			
Project Participant's response	Date:	18/11/2022	
a) Provided to VVB b) Provided to VVB.			
Documentation provided as evidence by Project Participant			
Signed Declarations by PP			
Auditor's assessment comment	Date:	22/11/2022	
a) Ok Closed (The signed and sealed declarations by PP and dated as 17/11/2022 have been provided).			

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	05
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Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please describe how the project contributes to achieving any nationally stated sustainable development priorities in the Section 1.17 of the PD. b) Please include the current status and method of the ongoing communication with the local stakeholders in the Section 2.2 of the PD. c) Please include all local stakeholder communication details associated with the current crediting period in the Section 2.2 of the PD. d) Please include the date of EIA decision date and relevant details in the Section 2.3 of the PD. e) Please include the waste management process details in the Section 2.3 of the PD. f) Please revise the Section 2.4 in line with the relevant PD template.			
Project Participant's response		Date:	18/11/2022
a) Revised. b) A meeting will be planned, and a public announcement will be made in the next period. c) A meeting will be planned, and a public announcement will be made in the next period. d) Added. The date of the EIA report is 06.06.2007. Provided to the DOE. e) Included f) Revised.			
Documentation provided as evidence by Project Participant			
Revised PD			
Auditor's assessment comment		Date:	22/11/2022
a) Ok Closed (Section 1.17 of the PD has been revised accordingly). b) Ok Closed (Section 2.2 of the PD has been revised accordingly). c) Ok Closed (Section 2.2 of the PD has been revised accordingly). d) e) Ok Closed (Section 2.3 of the PD has been revised accordingly). f) Ok Closed (Section 2.4 of the PD has been revised accordingly).			

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	06
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please correct the applied methodology version throughout the PD. b) Please include the compliance of the project with the applicable version of "Methodological Tool: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" in the Section 3.2 of the PD. c) Please clarify how the project boundary has been determined in the Section 3.3 of the PD.			

d) Please include details of the baseline scenario in line with the applied methodology in the Section 3.4 of the PD. e) Please clarify clearly whether any new additionality assessment has been handled in the Section 3.5 of the PD. f) Please clarify the regulatory surplus compliance of the project in the Section 3.5 of the PD.		
Project Participant's response	Date:	18/11/2022
a) Revised b) Already included c) Revised d) Revised e) Revised. f) Revised.		
Documentation provided as evidence by Project Participant		
Revised PD		
Auditor's assessment comment	Date:	22/11/2022
a) Ok Closed (PD has been revised accordingly). b) Ok Closed (Section 3.4 of the PD has been revised accordingly). c) Ok Closed ((Section 3.3 of the PD has been revised accordingly). d) Ok Closed (Section 3.4 of the PD has been revised accordingly). e) Ok Closed (Section 3.5 of the PD has been revised accordingly). f) Ok Closed (Section 3.5 of the PD has been revised accordingly).		

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	07
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please correct the baseline emission calculation details in the Section 4.1 of the PD in line with the latest emission factor details. b) Please correct the ER calculation details in the Section 4.4 of the PD in line with the latest emission factor details. c) Please correct the EFgrid,CM,y parameter details in the Section 5.1 of the PD in line with the latest emission factor details including the reference links.			
Project Participant's response		Date:	18/11/2022
a) Revised. b) Revised. c) Revised.			
Documentation provided as evidence by Project Participant			
Revised PD			
Auditor's assessment comment		Date:	22/11/2022

a) Ok Closed (Section 4.1 of the PD has been revised accordingly).
b) Ok Closed (Section 4.1 of the PD has been revised accordingly).
c) Ok Closed (Section 5.1 of the PD has been revised accordingly).

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	08
Raised by:	Anıl Söyler	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/11/2022
a) Please include all relevant monitoring parameters in the Section 5.2 of the PD. b) Please correct the meter details in the Sections 5.2 and 5.3 of the PD. c) Please provide the main and back up meter details (serial numbers, accuracy class etc.) in a tabular format in the Section 5.2 of the PD. d) Please clarify the applicability of PMUM in the Section 5.2 of the PD. e) Please include clearly the main and cross check sources for EG _{PJ,y} parameter in the Section 5.2 of the PD. f) Please include the data/parameter storage and archiving details in the Section 5.3 of the PD. g) Please clarify the procedures for handling non-conformances in the Section 5.3 of the PD. h) Please clarify the procedures for internal auditing in the Section 5.3 of the PD. i) Please correct the inaccessible hyperlinks in the Section 5.3 of the PD. j) Please clarify the following sentence: “The company is not responsible for calibration of the meters in Turkey according to the local standards” in the Section 5.3 of the PD.			
Project Participant’s response		Date:	18/11/2022
a) Included. b) Revised c) Revised. d) PMUM is no longer used, instead there are EPIAŞ records. e) Revised. f) Revised. g) It’s already mentioned in section 5.3 of the PD. h) Added in section 5.3 of the PD. i) Revised. j) The relevant sentence has been changed as “The project owner is not responsible for calibration of the meters in Turkey according to the local standards”			
Documentation provided as evidence by Project Participant			
Revised PD			
Auditor’s assessment comment		Date:	22/11/2022
a) Ok Closed (Section 5.2 of the PD has been revised accordingly). b) Ok Closed (Sections 5.2 and 5.3 of the PD have been revised accordingly). c) Ok Closed (Section 5.2 of the PD has been revised accordingly). d) Ok Closed (Section 5.2 of the PD has been revised accordingly). e) Ok Closed (Section 5.2 of the PD has been revised accordingly). f) g) h) i) j) Ok Closed (Section 5.3 of the PD has been revised accordingly).			

