Gold Standard for the Global Goals

Climate Security & Sustainable Development

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v.1.5**

RELATED SUPPORT

- TEMPLATE GUIDE Key Project Information & Project Design Document

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KEY PROJECT INFORMATION

GS ID of Project	GS672
Title of Project	Düzova Wind Power Project, Turkey
Time of First Submission Date	05/05/2009
Date of Design Certification	22/11/2010
Version number of the PDD	04
Completion date of version	06/02/2024
Project Developer	GTE KARBON SÜRDÜRÜLEBİLİR ENERJİ EĞİTİM DANIŞMANLIK VE TİC. AŞ (Project Developer)
Project Representative	Ütopya Elektrik Üretim Sanayi ve Ticaret A.Ş. (Project Owner)
Project Participants and any communities involved	1-Ütopya Elektrik Üretim Sanayi ve Ticaret A.Ş. (Project Owner) 2-GTE KARBON SÜRDÜRÜLEBİLİR ENERJİ EĞİTİM DANIŞMANLIK VE TİC. AŞ (Project Developer)
Host Country (ies)	Turkey
Activity Requirements applied	☐ Community Service Activity ☒ Renewable Energy ☐ Land-Use and Forests Activity Requirements/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☐ Small Scale ☒ Large Scale
Other Requirements applied	N/A
Methodology (ies) applied and version number	ACM0002, “Consolidated baseline methodology for grid connected electricity generation from renewable sources” version 21.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☒ Regular ☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT (DEFINED IN B.6)	ESTIMATED ANNUAL AVERAGE	UNITS OR PRODUCTS
13 Climate Action (mandatory)	Reduction of CO_2 emissions and other pollutants due to implementation of project activity	97,481 tonnes of CO_2e per annum NO_x: 159.87 tons SO_2: 742.21 tons	VERs tons tons
SDG 6 Clean Water and Sanitation	Appropriate disposal of wastewater as required by the Law on Water Pollution Control	No wastewater to be discharged to the environment in the project area.	Wastewater discharge transfer records
SDG 7 Affordable and Clean Energy	Net electricity generated and delivered to the grid by the power plant in year y	152,900 MWh	MWh
SDG 8 Decent Work and Economic Growth	The project provides employment. Trainings to be held.	Around 7 people to be employed and trained.	Training records, SGK (social security) records

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

Ütopya Elektrik Üretim Sanayi ve Tic. A.Ş. ("Ütopya Elektrik" or project owner) invests into a new wind power plant i.e. Düzova Wind Power Plant ("Düzova WPP") and granted production license by EMRA on May 2007 for 15 MW, construction work had been started on 01/06/2009, and first commissioning of the turbines occurred on 11/08/2009 and production license amended to 30 MW on April 2010. Second amendment on License Regulation on 11/08/2011, gave right to the project owner to increase mechanical installed capacity of the power plant to 40 MW, provided that electrical power capacity to be fed into the grid shall not exceed the electrical installed capacity stated in the license (30 MWe) and additional turbines shall be built in the project area. By third amendment of license on 13 March 2013, total capacity of the project is increased to 50 MW with 20 turbines each having 2.5 MW capacity.

As stated in the above paragraph, Düzova WPP consists of 20 wind turbines. 16 of them are GE 2.5xl model turbines with 2.5 MW output each having 100 m diameter rotor, 7,854 m^2 swept area and 85 m hub height. 4 of them are GE 2.75-100 model with 103 m diameter rotor, 8,332 m^2 swept area and 100 m hub height. These turbines operate as 2.5 MW (6 of them operate as 2.75 MW). The wind turbines are connected to the wind farm substation through 34.5 kV underground cables. The voltage is raised to 154 kV and is transferred to grid via a 3 km long transmission line which is connected to the bypassing Bergama-Ayvalık transmission line of TEIAS. The entire net electricity production is 152,900 MWh per year.

Annual energy yield of the first 15 MWe capacity was estimated to be 59,300 MWh and 30 MWe was estimated to be 118,100 MWh. According to the energy yield study of GL Garrad Hassan on 19 July 2013 annual energy generation for 51.5 MW capacity is estimated to be 152,900 MWh/yr. Thus, all electricity generation figures in PDD are revised in accordance with this figure.

Finally, by the fourth amendment of license on 19/09/2014, total capacity of project is increased to 51.5 MW without any additional turbines but increasing the capacity of 6 turbines (turbines numbered T13, T14, T17, T18, T19, T20) 0.25 MW from 2.5 MW to 2.75 MW. Also, the electricity generation amount stayed at same, 152,900 MWh. Since

the installed capacity of the project is 51.5 MW, this project is a large-scale project. The proposed project involves the development of an onshore wind farm with a total capacity of 51.5 MWm / 51.5 MWe which is located in Bergama District of İzmir Province in Turkey.

As per the generation licence issued by Energy Market Regulatory Authority (EMRA)[1] on 03/05/2007 (EÜ1179-22/851) the project has a total of 20 turbines with an installed capacity of 14x2.5 MW and 6x2.75 MW, corresponding to a total capacity of 51.5 MWm / 51.5 MWe. As per the generation license, all legal rights of the project is given to Ütopya Elektrik Üretim Sanayi ve Ticaret A.Ş. (Project Owner) for 49 years including pre-construction and construction periods[2]. Purpose of the proposed project is to generate electricity by utilizing the renewable energy potential to meet increasing electricity demand and thus reduce fossil fuel consumption. The wind turbines are connected to the wind farm substation through 34.5 kV underground cables. The voltage is raised to 154 kV and is transferred to grid via a 3 km long transmission line which is connected to the bypassing Bergama-Ayvalık transmission line of TEIAS.

Estimated generation corresponds to 97,481 tCO_2 avoided annually and 682,367 tCO_2 through 7 years of third crediting period in total.

Table 2. Milestones for Düzova WPP

Milestone	Date
Issuance of the license	03/05/2007
Proposal Requests from Consultants for VER Development	15/11/2008
Signature with FutureCamp GmbH for VER Development	28/01/2009
Initial Stakeholder Consultation in Aşağıkırıklar Village	13/02/2009
Electromechanical Contract Signature with GE	17/02/2009
EIA Exempt Approval	13/03/2009
Date for start of construction	01/06/2009
Starting to the Operation with 6 turbines	11/08/2009
Commissioning of turbines T1, T2, T3, T4, T5, T6 6x2.5	11/08/2009
Capacity increase of turbines T13, T14, T17, T18, T19, T20	06/11/2015

[1] Enerji Piyasasi Düzenleme Kurumu

Electromechanical Contract Signature with GE for additional 6 turbines	25/05/2010
Starting date for construction of additional 6 turbines	03/09/2010
Commissioning of turbines T7, T8, T9, T10, T11, T12, T13, T14, T15, T16 12x2.5	03/09/2010
Final Validation Report	05/10/2010
Gold Standard Registration	22/11/2010
End of the first monitoring period	31/08/2010
Approval date of first design change (by GS)	09/06/2011
End of the second monitoring period	30/09/2011
Approval date of second design change (by GS)	15/10/2012
Construction start date for second capacity increase	05/04/2012
Operation start date for the 4 turbines	12/02/2013
Capacity increase of turbines T7, T9, T10, T15, T16 5x2.5	12/02/2013
Electromechanical Contract Signature with GE for additional 4 turbines (third capacity increase)	18/03/2013
Capacity increase of turbines T13, T14 2x2.5	16/05/2013
Construction start date for third design change	20/05/2013
End of the third monitoring period	31/05/2013
Loan Agreement for additional 4 turbines for third capacity increase	23/08/2013
Commissioning of turbines T17, T18, T19, T20 4x2.5	21/03/2014
Commercial operation date for the 50 MW (capacity increase)	21/03/2014
First crediting period (7 years)	11/08/2009 - 10/08/2016
Second crediting period (7 years)	11/08/2016 - 10/08/2023
Third crediting period (7 years)	11/08/2023 - 10/08/2030

* Investment decision date

VER Consultancy Agreement was finalized before the investment decision date which can be checked from the table

Main goals of the proposed project includes;

- Utilization of the renewable energy potential of Turkey in order to meet rapidly increasing electricity demand and contribute achieving energy security
- Increase share of WPPs in electricity generation mix of Turkey and reduction of GHG emissions.
- Contribute to the national economic development by creating direct and indirect job opportunities during construction and operation phases.
- Reduce import dependency of fossil fuel dominated electricity sector and diversify of energy sources in generation mix through use of local resources.

- Contribution to sustainable development through supporting local community and local economy.

In addition to emission reduction through the use of renewable resources, the project also contributes on creating more job opportunities and thus contributes to sustainable development. In terms of environmental impact, project is considered to have positive impact on air quality due to avoided NOx, PM and SO_2 emissions whereas no negative impact on water quality other pollutants and biodiversity has been identified. As per the national regulations, a project introductory file (PIF) and Environmental and Social Impact Assessment (ESIA) have been prepared for the project to assess the environmental impacts to compliance with international standards.

Table 3. Summary of design changes

Explanation	Date of Issuance or Amendment	Installed Capacity (MWm/MWe)	Number of Turbines	Annual Generation (MWh/yr)
Preliminary Design	03/05/2007	15 MWm / 15 MWe	6	59,300
1. Design Change	08/04/2010	30 MWm / 30 MWe	12	97,200
2. Design Change	01/03/2012	40 MWm / 30 MWe	16	118,100
3. Design Change	13/03/2013	50 MWm / 50 MWe	20	152,900
Non-Design Change	19/09/2014	51.5 MWm / 51.5 MWe	20	152,900

According to the methodology (ACM0002: Grid-connected electricity generation from renewable sources, v.21) baseline scenario has been identified as “the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources” as per Section 5.2.1, paragraph 24, of the selected methodology.

A.1.1. Eligibility of the project under Gold Standard

Project activity involves construction of a 51.5 MWe wind power plant for electricity generation. Project is categorized as “Renewable Energy Supply” according to GS definition whereas it is included in the sectoral scope 1 “Energy Industry – Renewable

Sources" according to the UNFCCC definition. Project type is retroactive as per the GS rules.

The project meets the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements, as described below:

i. The project is not pre identified as eligible.

ii. Gold Standard approval, GS4GG Principles and Requirements:

Project meets eligibility criteria as per the GS4GG principles and requirements;

- Project is a renewable energy (wind power) installation activity
- Project activity include physical action/implementation on the ground
- Project is located in Turkey, which is eligible for VER projects
- Project is a large-scale renewable energy plant with defined boundaries
- Project contributes to sustainable development goals
- Project is in compliance with GS safeguarding principles
- Stakeholders are involved in project implementation and planning during local consultation meetings and feedback round.
- Project outcomes are real validated/verified by approved bodies
- Additionality is demonstrated as per the applicable tools and methodologies

iii. The project meets the General Eligibility Criteria of the applicable Activity Requirements

Scale of the project activity: The project is a 51.5 MWe wind power plant project and exceeding the 15 MW limit for small-scale project according to UNFCCC regulations, the project is categorized under large-scale.

Renewable Energy Activity Requirements:

• 4.1 Principle-1: Contribution to Climate Security & Sustainable Development: Project contributes 4 SDSs including SDG 13. Please see Section B.6.1. This principle is fulfilled since the project contributes to SDG 13 and 3 other SDGs which are SDG 6, SDG 7 and SDG 8.

• 4.2 Principle-2: Safeguarding Principles: Please see Section D. This principle is fulfilled since the safeguarding principles have been explained in Appendix-1 and included in the monitoring plan in section B.7.1 as well.

• 4.3 Principle-3: Stakeholder Inclusivity: Please see Section E. Stakeholders have been included in many steps of the project activity during the operation and implementation phases. The project has been operational since 2009 and no major issues were raised by the stakeholders. The continuous input mechanism is still in place and stakeholders are aware of this mechanism.
• 4.4 Principle-4: Demonstration of Real Outcomes: Please see Section B.6.4. The project complies with principles and requirements applicable to this project. Design certifications renewal is done at required time intervals.
• 4.5 Principle-5: Financial Additionality & Ongoing Financial Needs: Please see Section B.5. Additionality has been demonstrated in the first crediting period. Ongoing financial need is demonstrated for the renewal of the crediting period. The project is still in need of the revenue from GS-VERs and the project issued GS-VERs continuous during the first and the second crediting periods adding up to around 663K GS-VERS. The project is preparing to submit the last verification documents after renewal of the crediting period documents are submitted.

iv. The project is not registered with any other voluntary or compliance schemes.
The project doesn not claim Green or White certificates or equivalents that may result in double counting as a result of carbon dioxide emission reduction purposes. Project is not registered and also will not benefit from other certification schemes or renewable energy labelling standards.

v. The activity is NOT located in a host country, region, locality or state that has an emission reduction cap enforced OR has the possibility to trade emissions that include the scope of the proposed project
As Turkey, the host country, has no cap on GHG emissions, the GS VERs don't need to be backed up by allowances or other denominated units resulting in local authorities stating that an equivalent amount of allowances will be retired to back up the GS VERs issued. The project will be registered and seek approval from the national registry on

GHG emission reduction projects as regulated by Communique on Procedures for Registration of Greenhouse Gas Emission Reduction Projects[2].

vi. There is no potential for double counting of impacts if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature.

vii. The project is in compliance with Turkey's legal, environmental, ecological and social regulations.

viii. Type of the project activity

The project fits into 'Renewable Energy Supply' category as defined generation and delivery of energy services from non-fossil and non-depletable sources as wind power being one.

ix. Greenhouse Gases

The project activity complies with Gold Standard and UNFCCC eligibility criteria as reducing carbon dioxide emission that is mainly produced by the Turkish Grid dominated by fossil fuel power plants.

x. Official Development Assistance:

As Turkey being a part of the DAC list of ODA Recipients of OECD[3], a written declaration of non-ODA for the project activity is submitted.

In order to assess the environmental impacts of the project, including its location, its characteristics, capacity, interaction with other plants in the vicinity, utilization of natural resources, waste management, social and economic impacts, any natural and historical protected areas within the project boundaries, assessment of geological and

[2] http://www.mevzuat.gov.tr/Metin.Aspx?MevzuatKod=9.5.14195&MevzuatIliski=0&sourceXmlSearch=
[3] https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/DAC-List-of-ODA-Recipients-for-reporting-2022-23-flows.pdf

seismic aspects of the project site has been considered. The assessment was made according to the 51.5 MWm / 51.5 MWe total installed capacity.
A Project Description Report (PDR) was prepared for the wind farm as required by the Turkish Environmental Impact Assessment (EIA) Regulation. The PDR was reviewed by the Isparta Provincial Directorate of Environment and Urbanization (PDoEU) and the Project secured an "EIA is not required" decision, thus a detailed EIA was not prepared for the Project. Also, a more detailed environmental and social impact analysis (ESIA) study has been conducted for the project in line with international standards[53].

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

All the legal rights of the project is given to Ütopya Elektrik Üretim Sanayi ve Ticaret A.Ş. for 49 years.

i) Project owner is also the license holder of the project. Ownership is not transferred from other beneficiaries. Legal documents (generation license etc, and cover letter, terms and conditions) are submitted to VVB or uploaded to the GS registry.

ii) Generation license (EÜ1179-22/851) issued by EPDK (EMRA-Energy Market Regulatory Authority) dated 03/05/2007, gives the rights to install and operate wind power plant in the defined site to project owner.

iii) Legal right for installation of WTGs and generating electricity on project site is defined by local regulations and secured by generation license as defined above. Land for the project is leased from the government for the generation license period as per the local regulations.

A.2 Location of project

The project site is located in the Aşağıkırıklar village, Bergama district, İzmir city, Turkey. The project area is completely plain area without any trees. There are not any agricultural activities on proposed project area. Location of the project and the specific positions of the 20 wind turbines are presented below.

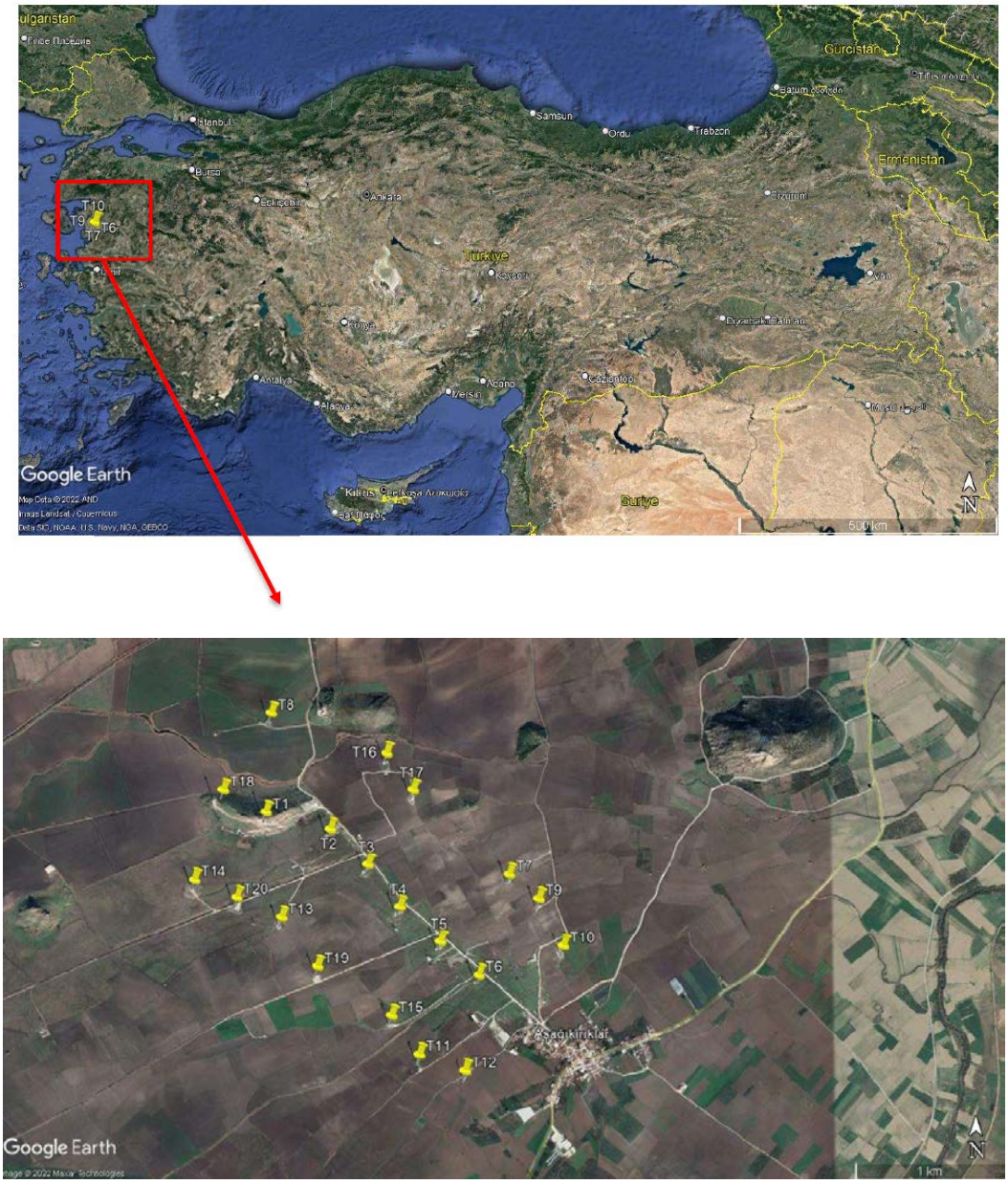


Figure 1. Physical Location of the Project

Table 4. Project Coordinates

Wind Turbine	Latitude (N)	Longitude(E)	Latitude (N)	Longitude(E)
T-1	39° 02' 50.5817"	27° 01'06.7715"	39.045702°	27.018070°
T-2	39° 02' 46.9451 "	27° 01' 24.8672"	39.044692°	27.023097°
T-3	39° 02' 39.1246"	27° 01' 35.5975"	39.042519°	27.026077°
T-4	39° 02' 29.8444"	27° 01' 44.6625"	39.039942°	27.028595°
T-5	39° 02' 22.2178"	27° 01' 56.2235"	39.037823°	27.031807°
T-6	39° 02' 14.8506"	27° 02' 07.1184"	39.035777°	27.034833°
T-7	39° 02' 36.9400"	27° 02' 15.7406"	39.041913°	27.037228°
T-8	39° 03' 12.6411"	27° 01' 07.8590"	39.051830°	27.018372°

T-9	39° 02' 31.5845"	27° 02' 24.0576"	39.040425°	27.039538°
T-10	39° 02' 21.2984"	27° 02' 30.9569"	39.037568°	27.041455°
T-11	39° 01' 57.5320"	27° 01' 50.3060"	39.030966°	27.030163°
T-12	39° 01' 54.0248"	27° 02' 03.2399"	39.029992°	27.033756°
T-13	39° 02' 27.5157"	27° 01' 11.1749"	39.039295°	27.019294°
T-14	39° 02' 35.7591"	27° 00' 46.4253"	39.041585°	27.012419°
T-15	39° 02' 6.0010"	27° 01' 42.4898"	39.033319°	27.027992°
T-16	39° 03' 3.7134"	27°01' 40.8072"	39.049350°	27.027524°
T-17	39° 02' 56.9957"	27° 01' 50.6229"	39.047087°	27.029627°
T-18	39° 02' 47.5529"	27° 01' 59.9792"	39.047072°	27.014650°
T-19	39° 02' 13.5632"	27° 01' 27.1855"	39.036303°	27.022158°
T-20	39° 02' 31.6376"	27° 00' 58.7379"	39.040512°	27.015770°

A.3 Technologies and/or measures

Düzova WPP has 20 turbines each with an installed capacity of capacity of 14x2.5 MW and 14x2.500 MW and 6x2.750 MW, corresponding to a total capacity of 51.5 MWm / 51.5 MWe. The project uses GE 2.5/100 and GE 2.75/100 turbines with total electrical output capacity will be limited to 51.5 MWe. 14 of them are GE 2.5xl model turbines with 2.5 MW output each having 100 m diameter rotor, 7,854 m2 swept area and 85 m hub height. 6 of them are GE 2.75-100 model with 103 m diameter rotor, 8,332 m^2 swept area and 100 m hub height. These turbines operate as 2.5 MW (6 of them operate as 2.75 MW). The wind turbines are connected to the wind farm substation through 34.5 kV underground cables. The voltage is raised to 154 kV and is transferred to grid via a 3 km long transmission line which is connected to the bypassing Bergama-Ayvalık transmission line of TEIAS. The entire net electricity production is 152,900 MWh per year. Detailed technical characteristics of turbine model is given in the table below.

Table 5. Technical properties

Main Data	
Type	GE 2.5-100 GE 2.75-100
Diameter	100 m
Hub height	85 m
Cut-in wind speed	3.0 m/s
Cut-out-wind speed	25 m/s
Generator	
Manufacturer	ABB
Vendor designation	AMG 0500 LN08 AAM
Rated Power	2640 kW
Rated voltage	710 V

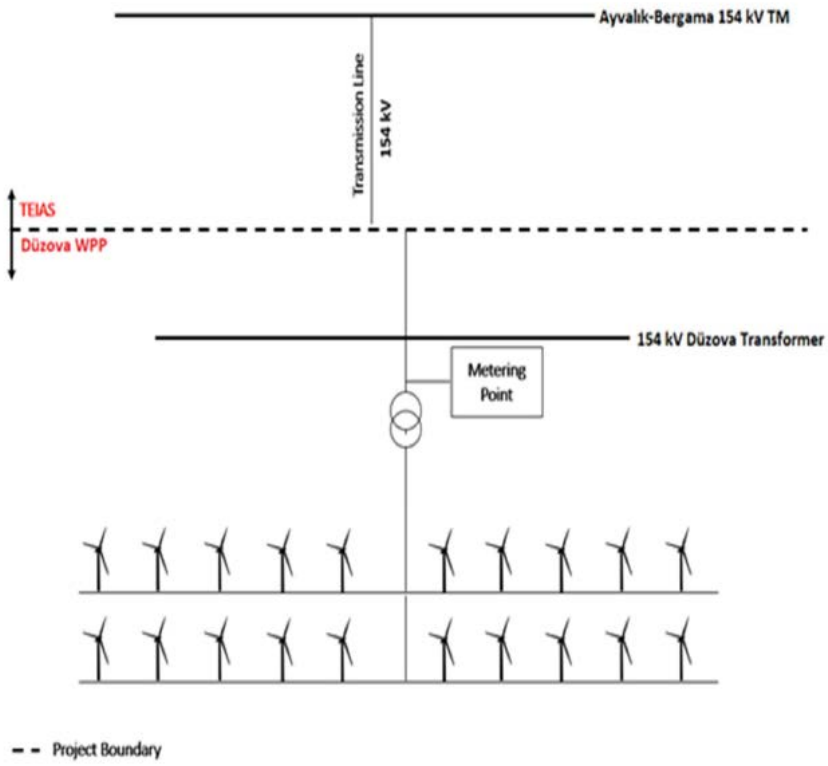


Figure 2. Electrical Single Line Diagram

Table 6. Specification of meters are as follow: First metering point (A)

	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC	LZQJ-XC
Class	0.2S	0.52
Serial number	11590286	8088829
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	28/08/2022	24/10/2020 28/02/2022

Table 7. Specification of meters are as follow: Second metering point (B)

	Main Meter	Spare Meter
Brand	EMH	EMH

Type	LZQJ-XC	LZQJ-XC
Class	11590287	0.5S
Serial number	0.2S	8088830
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	28/08/2022	24/10/2020 28/02/2022

A.4 Scale of the project

It is a large-scale project having 51.5 MWm / 51.5 MWe installed and a production capacity of 152,900 GWh with 97,481 tonnes estimated CO_2 reduction.

A.5 Funding sources of project

Project is financed by the company's own resources. No public funding was used. The project activity does not receive public funding. The project does not receive or benefit from Official Development Assistance (ODA).

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

The UNFCCC approved baseline and monitoring methodology applicable to this project is ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0[4] was applied for the project activity. ACM0002 refers to the following tools:

- Tool 01: "Tool for the demonstration and assessment of additionality", Version 7.0.0[5], 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 03.0.1[6]
- Tool 07: ''Tool to calculate the emission factor for an electricity system'', Version 07.0[7]

B.2. Applicability of methodology (ies)

The choice of methodology ACM0002, v21.0, is justified as the project activity meets its applicability criteria. Duzova WPP is a large-scale wind power type, Greenfield, grid connected renewable electricity generation project.

No.	Applicability Conditions	The Project
1	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 plant(s)/unit(s);	Düzova Wind Power Project, Turkey is a large-scale wind power type, Greenfield, grid connected renewable electricity

[4] https://cdm.unfccc.int/methodologies/DB/HF3LP6O41YY0JIP1DK6ZRJO9RSCX3S
[5] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[6] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf
[7] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

	(d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s).	generation project. So, the project meets (a) Install a Greenfield power plant.
2	In case the project activity involves the integration of a Battery Energy Storage System (BESS), the methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic1 or wind power plant(s)/unit(s); (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 include integration of BESS.
3	The methodology is applicable under the following conditions: (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 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	(a) The project is not a hydro power plant, it is a wind power plant. So this condition is N/A. (b) The project does not include capacity additions, retrofits, rehabilitations or replacements. (c) The project is a Greenfield project but not categorized under paragraph 5.

	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 exigencies2 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.	(d) The project does not include integration of BESS.
4	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,	The project is not a hydro power plant, it is a wind power plant. So this condition is N/A.

	calculated using equation (7), is greater than 4 W/m^2; or (c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m^2; or (d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m^2, 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/m^2; (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/m^2 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.	
5	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	The project is not a integrated hydro power project. This project is a wind power plant project. Hence, this condition is N/A.

	has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the CDM project activity.	
6	The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; (b) Biomass fired power plants/units.	(a) The project does not involve switching from fossil fuel use to renewable energy at the site of the project activity. (b) The project is not a biomass fired power plant.
7	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 or capacity additions. Hence, this condition is N/A.
8	In addition, the applicability conditions included in the tools referred to below apply	Given below.

Applicability as per "Tool 07 : Tool to calculate the emission factor for an electricity system, version 07.0"

No.	**Applicability Conditions**	**The Project**
1	This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is	The project activity supplies electricity to

	where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	a grid. Hence, this condition is met.
2	Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available to the project participants, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	CO_2 emission factor for the displacement of electricity generated by power plants in an electricity system is determined by calculating the "combined margin" emission factor (CM) of the electricity system.
3	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	The project is not a CDM project, it is a GS4GG project. Hence, this condition is N/A.
4	Under this tool, the value applied to the CO_2 emission factor of biofuels is zero.	The project does not involve biofuels in any way.

Applicability as per "Tool 01 : Tool for the demonstration and assessment of additionality, version 07.0.0"

No.	Applicability Conditions	The Project
1	The use of the "Tool for the demonstration and assessment of additionality" is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.	Tool for the demonstration and assessment of additionality is applied in this project since there is no new methodologies proposed. Hence, this condition is N/A.
2	Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory.	The additionality tool is applied using this methodology.

Applicability of Tool 11 "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period", v3.0.1[8]

No.	Applicability Conditions	The Project
1	This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 49 (a) of the modalities and procedures of the clean development mechanism.	Since renewal of the crediting period is executed, this tool is applicable.

Since there is no delineation of project electricity system or connected electricity systems by DNA, following criteria has been used to determine the existence of significant transmission constraints:

- In case of electricity systems with spot markets for electricity: there are differences in electricity prices (without transmission and distribution costs) of

[8] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf

more than 5 per cent between the systems during 60 per cent or more of the hours of the year.

- The transmission line is operated at 90% or more of its rated capacity during 90% per cent or more of the hours of the year.

Since the project output is fed to the Turkish electricity grid which does not involve any distinct electricity systems that applies different price, first criteria defined above is not applicable. Also, since the transmission line between the proposed projects and nearest substation is built within the scope of the project and there exist no information on grid capacity utilization, second criteria is also inapplicable. Based on assessment above, it is difficult to conclude with a significant transmission constraint or grid boundary. Since there is no dispatch grid system in Turkey, the project boundary is considered as the National Electricity Grid of Turkey according to applied tool. The geographical and physical boundaries of the Turkish grid and location of the power plants are well identified as given diagram below.

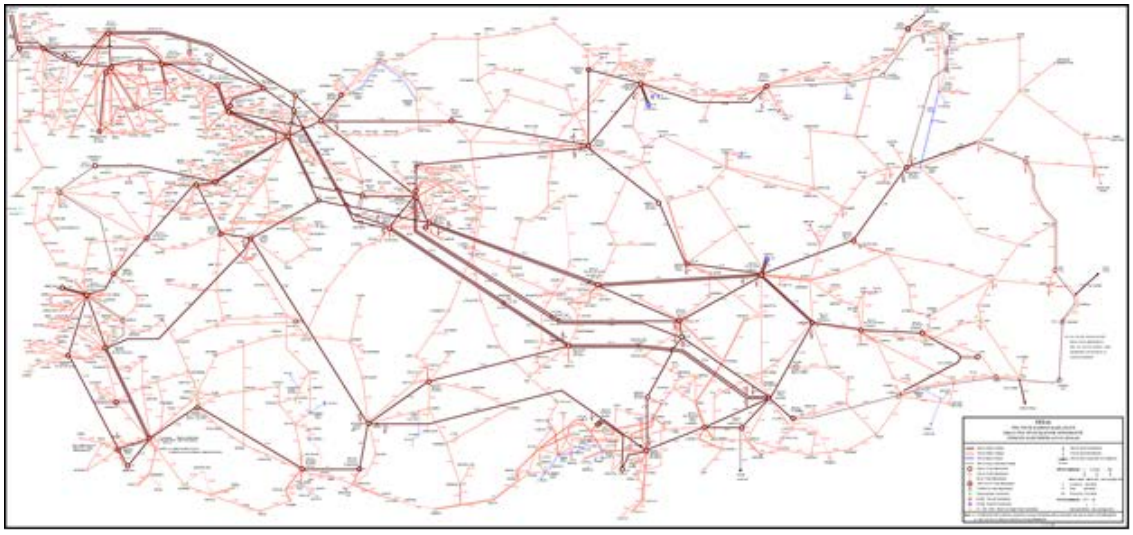


Figure 3. Turkish electricity grid

B.3. Project boundary

The project boundary is considered as the National Electricity Grid of Turkey according to applied tool. The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the power plant is connected to. The flow diagram of the project boundary is illustrated below:

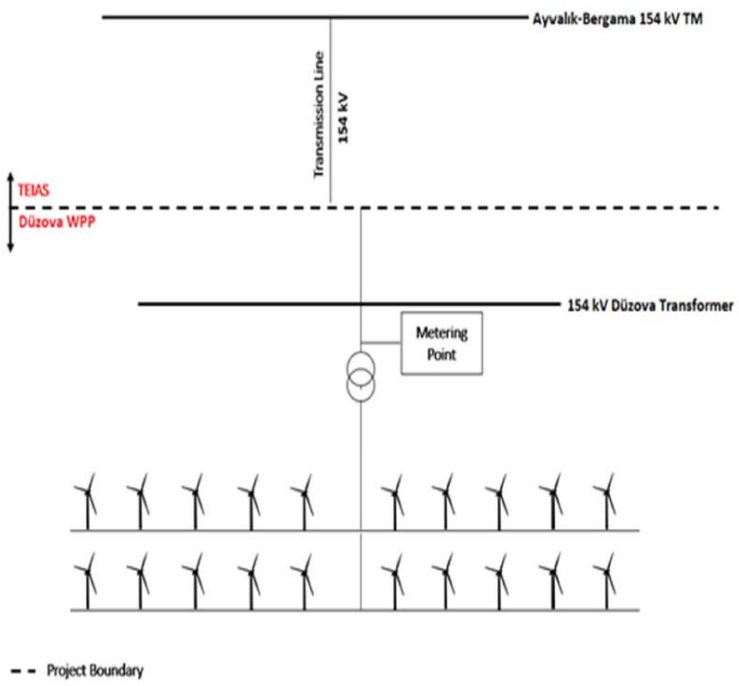


Figure 4. Project boundary

The project does not involve any other emissions sources not foreseen by the methodologies. The greenhouse gases and emission sources included in or excluded from the project boundary are shown in table below.

Source		GHGs	Included?	Justification / Explanation
Baseline scenario	Electricity generation by the grid connected power plants	CO_2	Yes	Major emission source
		CH_4	No	Minor emission source. Excluded for simplification
		N_2O	No	Minor emission source. Excluded for simplification
Project scenario	CO2 emissions from combustion of fossil fuels for electricity generation in solar thermal power plants and geothermal power plants.	CO_2	No	Not Applicable. Project is a wind power plant.
		CH_4	No	Not Applicable. Project is a wind power plant.
		N_2O	No	Not Applicable. Project is a wind power plant.

B.4. Establishment and description of baseline scenario

According to the methodology (ACM0002: Grid-connected electricity generation from renewable sources, v.21) baseline scenario has been identified as “the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants and by the addition of new generation sources” as per Section 5.2.2, paragraph 23, of the selected methodology.

According to the 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, there are some requirements:

No.	Applicability Conditions	The Project
Step 1.1	If the current baseline complies with all relevant mandatory national and/or sectoral policies which have come into effect after the submission of the project activity for validation or the submission of the previous request for renewal of the crediting period and are applicable at the time of requesting renewal of the crediting period, go to Step 1.2. If the current baseline does not comply with relevant mandatory national and/or sectoral policies, then assess based on the examination of current practice in the country or region in which the policies apply, whether those policies are systematically not enforced and that non-compliance with those requirements is widespread in the country or region.	There is no change in national/sectoral policies affecting project implementation. Hence the Step 1.2. can be evaluated.
Step 1.2.	Assess the impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions, without reassessing the baseline scenario. In the situation where the baseline scenario identified at the validation of the project activity was the continuation of the current	The combined margin is updated as per OM & BM calculations by

	practice without any investment, an assessment of the changes in market characteristics is required for the renewal of the crediting period. Evaluate whether the conditions used to determine the baseline emissions in the previous crediting period are still valid. Assess the availability of new fuels or raw materials and the impact of electricity or fuel prices in the identification of the current practice for the baseline emissions.	Ministry of Energy and Resources[9]
Step 1.3	This sub-step should only be applied if the baseline scenario identified at the validation of the project activity was the continuation of use of the current equipment(s) without any investment and, the projects proponents or third party (or parties) would undertake an investment later due, for example, to the end of the technical lifetime of the equipment(s) before the end of the crediting period or the availability of a new technology. Assess whether the remaining technical lifetime of the equipment that would have continued to be used in the absence of the project activity, as determined in the CDM-PDD or CDM-PDD-REN, exceeds the crediting period for which renewal is requested. Take into consideration the market penetration of different technologies. Evaluate the penetration rate of different technologies that are available in the market and evaluate how they could affect the baseline.	There is no overdue technology in the project as the lifetime of the technologies used was defined as 20 years as equity IRR has been calculated for the validation period[10]. the ongoing financial need derived from GS is still valid considering that the financial model validated in first crediting period projects 20 years of operation of the project. Hence, the model is still valid for

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

[10] Validation Report Ver 02

		the current crediting period.
Step 1.4	Assess whether data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are still valid or whether they should be updated. Updates should be undertaken in the following cases: • Where IPCC default values are used, the values should be updated if any new default values have been adopted and published by the IPCC, for example, in guidelines for national GHG inventories, IPCC assessment report or special reports by the IPCC; • Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values, or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity. ***If the application of Steps 1.1, 1.2, 1.3 and 1.4 confirmed that the current baseline as well as data and parameters are still valid for the subsequent crediting period, then this baseline, data and parameters can be used for the renewed crediting period. Otherwise, proceed to Step 2.***	The combined margin is updated as per OM & BM calculations by Ministry of Energy and Resources. Hence the assessment should proceed to Step 2.
Step 2	Update the current baseline and the data parameters.	The data and the parameters are updated for the third crediting period.

Turkish electricity generation is mainly composed of thermal power plants and the share of renewable resources; especially hydroelectric power plants have decreased significantly in recent years. Since Turkey is a developing country, there is an increasing demand for electricity which is fully expected to continue in the foreseeable future.

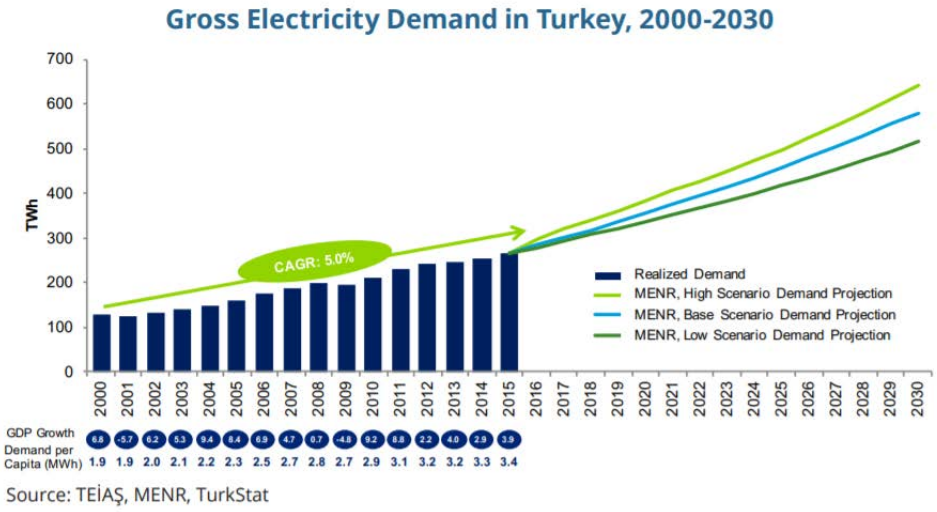


Figure 5. Projection of Turkey's electricity demand[11]

Keeping in mind the slow development of alternative energy sources, the trend in Turkey is to build new thermal power plants to satisfy the annual growth in energy demand. Turkey as a developing nation has been dealing with energy security by developing and constructing high capacity coal and natural gas power plants (Figure 6). The development of thermal power plants has also been encouraged by the large natural resource availability, especially the abundance of economically accessible lignite (Figure 7).

[11] https://www.dunyaenerji.org.tr/wp-content/uploads/2017/10/turkish-energy-market-outlook.pdf

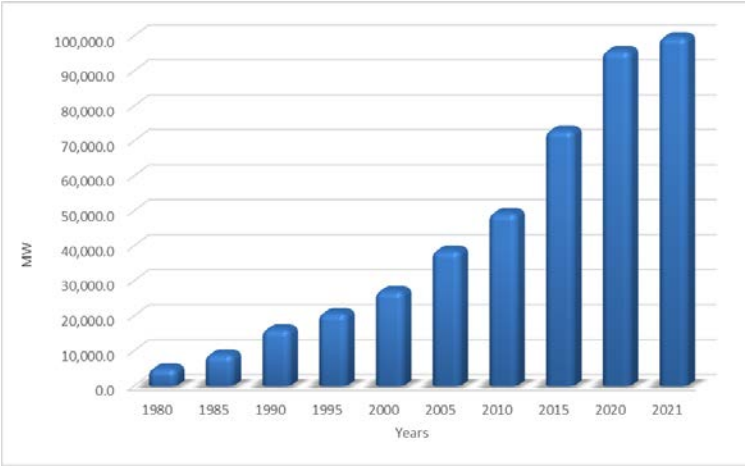


Figure 6. Development of Turkey's Installed Capacity[12]

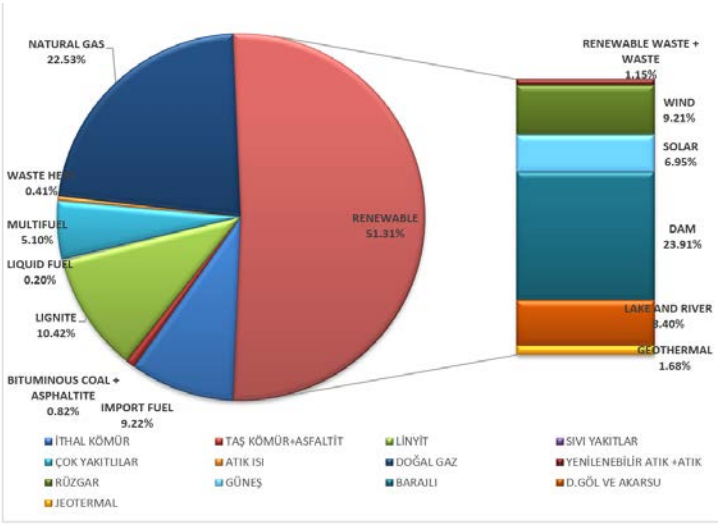


Figure 7. Distribution of installed capacity by primary energy resources[13]

In the absence of the proposed project activity, the same amount of electricity would be required to be supplied by either the current power plants or the new thermal power plants which would lead to increasing GHG emissions.

[12] Latest available data provided by TEİAŞ about installed capacity in Turkey https://webim.teias.gov.tr/file/ec2b6de1-4173-4a49-90fc-40e8a8b8ab9f?download
[13] https://webim.teias.gov.tr/file/b78ea86c-d15d-44ab-9646-eb4cb8d6178f?download

According to the TEIAS statistics[14], share of WWP's in total installed capacity of Turkey is about 9.21% (Figure 7) whereas share of WPP's in total generation is only 8.10%[15]. However, when the historical data is examined, it is observed that total installed capacity of thermal power plants has shown a rapid growth (Figure 6) in parallel with the demand for electricity whereas hydroelectric power generation has grown at a much slower rate - the energy generation proportion decreasing from 40% historically to current levels as shown in the figure below[16],[17].[18]

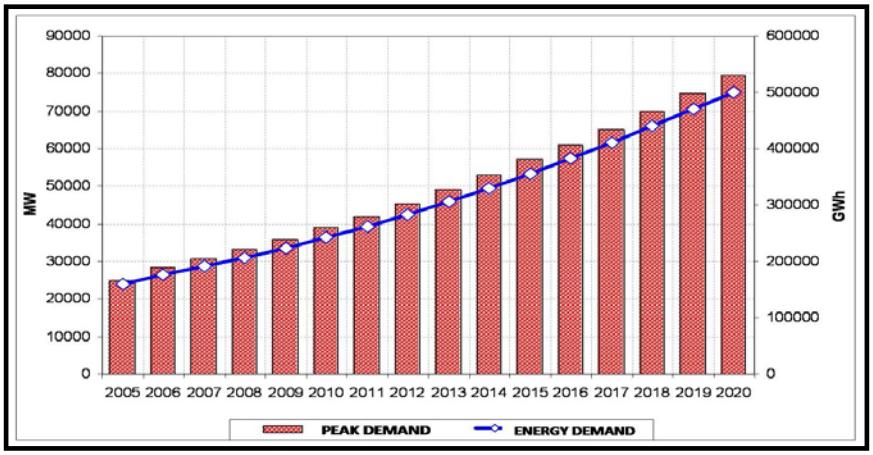


Figure 4. Peak load and consumption projection for Turkish electrcity system between 2005-2020[19],[20]

B.5. Demonstration of additionality

Selected methodology: The UNFCCC approved baseline and monitoring methodology applicable to this project is ACM0002: Grid-connected electricity generation from renewable sources, version 21.0 was applied for the project activity. ACM0002 refers to the following tools:

[14] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2010/front%20page%202010%C3%A7i%C3%A7ek%20kitap/kguc(1-12)/3.xls
[15] https://webim.teias.gov.tr/file/56774b2a-087b-4431-9479-29f1cb5d0d87?download
[16] https://webim.teias.gov.tr/file/39abb292-4b3e-4e70-9e08-914d0ba9bd43?download
[17] IEA Turkey Country Report, 2005
[18] The weblinks may not be available outside of Turkey, therefore, the figures are presented in this Section.
[19] http://www.teias.gov.tr/apkuretimplani/veriler.htm
[20] https://www.emo.org.tr/genel/bizden_detay.php?kod=51061&tipi=41&sube=0

- "Tool 07 Tool to calculate the emission factor for an electricity system: This tool is applicable and used for the calculation of OM, CM and CM since the project activity includes grid power plants and supplies electricity to the grid

Emission factor for the baseline scenario which was calculated by the Ministry of Environment and Urbanization has been used.

Within this framework, the project is expected to generate about 152,900 MWh electricity annually and reduce about 97,481 tCO_2 emissions through replacing the electricity that would need to be supplied via the national grid in the absence of the project activity.

Additionality has been demonstrated in the first crediting period. There is no change in project implementation, therefore there is no need to conduct an additionality assessment in the second crediting period.

Registered additionality figures that were demonstrated during the design certification is provided below.

Table 8. Main financial parameters during design certification

Item	Value	Units	Source	Date of Source Document
Installed Power	51.5/51.5	MWm/MWe	Generation licence	19/09/2014
Technical lifetime of the project	25	years	Tool to determine the remaining lifetime of equipment (v.1)	16/10/2009
Gross Generation	152.9	GWh	Power Production Assessment	19/06/2013
Electricity tariff	55	EUR Per MWh	Feed-in-tariff	18/05/2005
Total Investment Cost	57,379,000	EUR		

First crediting period (7 years) 11/08/2009 – 10/08/2016

Second crediting period (7 years) 11/08/2016 - 10/08/2023

Third crediting period (7 years) 11/08/2023 – 10/08/2030

During the first crediting period, 663K GS VERs has been issued[21]:

The ongoing financial need derived from GS certification is necessary to reduce unattractiveness of the project and enhance the project's operation in the second crediting period. As stated above, the ongoing financial need derived from GS is still valid considering that the financial model validated in first crediting period projects 20 years of operation of the project. Hence, the model is still valid for the current crediting period. This GS 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.

B.5.1 Prior Consideration

This is the third crediting period. The project has no design changes at the moment.

B.5.2 Ongoing Financial Need

Expected annual generation is 152,900 GWh. In terms of contribution of carbon revenues, around 663K GS-VER has been issued.

During the first crediting period (11/08/2009-10/08/2016) 432,113 GS-VERs were issued. During the second crediting period (11/08/2016-10/08/2023) 231,726 GS-VERs were issued. Moreover, the last verification of the second crediting period is also under preparation and the physical site visit by the VVB has been done. Therefore, the project is willing to receive revenue from the GS-VERs. Until recent few years, carbon revenues have compensated most of the staff cost of project and have generated increase in the profit of the project. Considering that project has already completed ten year feed-in-tariff period, i.e. the YEK-DEM[22] mechanism, income is lower due to lower market sales price (instead of fixed tariff) of electricity and increasing maintenance costs. Hence, significance of carbon revenues will be higher in the following years.

During the first crediting period, the following VERs has been issued in the monitoring periods as follows:

[21] https://registry.goldstandard.org/projects/details/1142
[22] Section 3 : https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=18907&MevzuatTur=7&MevzuatTertip=5

1st crediting period:
Aug 11, 2009 — Dec 31, 2009 – 10215 GS VERs (issued)
Jan 01, 2010 — Aug 31, 2010 – 18320+49848 GS VERs (issued)
Sep 01, 2010 — Dec 30, 2010 – 15423 GS VERs (issued)
Oct 01, 2011 — May 30, 2013 – 17920+20050+58885 GS VERs (issued)
Jun 01, 2013 — Sep 30, 2014– 44991+43434 GS VERs (issued)
Oct 01, 2014 — Oct 31, 2015 – 19015+72181 GS VERs (issued)
Nov 01, 2015 — Aug 10, 2016 – 14174+47657 GS VERs (issued)

2nd crediting period:
Aug 11, 2016 — Jul 31, 2017 – 45897+34635 GS VERs (issued)
Aug 01, 2017 — Jul 31, 2019 – 29367+77841+43986 GS VERs (issued)
Aug 01, 2019 — Jul 31, 2021 – 36428+86281+42743 GS VERs (issued)

01/08/2021 — 10/08/2023 – Around 167906 GS VERs – Last monitoring period of the 2nd crediting period is being verified by the VVB and will be submitted to GS when completed. Therefore, 829291 GS VERs have been issued throughout the project lifetime until now. 167906 GS VERs are to be issued soon.

The project conducts these issuance due to its need of the revenue from GS VERs, even though the validation/verification fees have increased as well as issuance fees. The project went through 3 design change processes. All applications have been conducted by the PD in order not to lose and income from GS VERs, as the VVB costs for design change processes also contributed to the financial burden on the project.

The initially implemented 6 wind turbines were commissioned on 11/08/2009, which makes them around 14.5 years old. The 12 turbines were implemented on 03/09/2010, which are now around 13.5 years old. The last 4 turbines were commissioned on 21/03/2014, which are now almost 10 years old. The older the turbines get, their O&M costs and operational problems become more frequent. This also applies to other equipment which have been in operation for similar timelines.

As per the latest design change PDD, an increase of 10% in operational costs cause IRR to decrease to 9.88%. The corporate tax rate in Turkey was 20% during the implementation of the project and has increased to 25%, which is the latest corporate tax % applied in Türkiye in 2024.

The ongoing financial need derived from GS certification is necessary to reduce unattractiveness of the project and enhance the project's operation in the third crediting period. This GS 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.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

		SDG IMPACT
SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	**INDICATOR (PROPOSED OR SDG INDICATOR)**
13 Climate Action (mandatory)	13.3: "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning"	Reduce CO_2 emissions caused by fossil fuel-fired power plants that are displaced due to the project activity.
6 Clean Water and Sanitation	6.3: "By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally"	6.3.1: "Proportion of domestic and industrial wastewater flows safely treated"

7 Affordable and Clean Energy	7.2: “By 2030, increase substantially the share of renewable energy in the global energy mix.”	7.2.1: “Renewable energy share in the total final energy consumption”
8 Decent Work and Economic Growth	8.5 “By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value”	8.5.1: “Average hourly earnings of female and male employees, by occupation, age and persons with disabilities”
	8.8: “Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment”	8.8.1: “Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status”

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact

SDG 6: Clean Water and Sanitation (Ensure availability and sustainable management of water and sanitation for all)

In the baseline scenario, no wastewater discharge to the environment in the project area. However, wastewater is collected in the cesspool and then transferred with sewage trucks. Records of transfer of wastewater from power plant by sewage truck will be used to demonstrate proper wastewater management. Therefore, wastewater transfer receipt will be provided.

The project activities replace the grid electricity, which is constituted of different fuel sources causing greenhouse gas emissions. By replacing in the consumption of these fuels, it contributes to conservation of water. Amount of wastewater to be discharged to the environment is decreased.

SDG 7: Affordable and Clean Energy (Ensure access to affordable, reliable, sustainable and modern energy for all)

There is no clean energy generation for baseline situation of the project site. During the feasibility studies, the project has been expected to generate 152,900 MWh of clean energy per annum and contributes to share of low-cost / must-run sources. Hence, contribution of the project could be followed via indicator 7.2.1 “Renewable energy share in the total final energy consumption” and following target: 7.2 ‘’By 2030, increase substantially the share of renewable energy in the global energy mix”.

SDG 8: Decent Work and Economic Growth (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)

- There are no employment opportunities as project created within the project area and nearby settlements for baseline situation. Project has been expected to contribute to decent work and economic growth could be expressed as following target and indicator:

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment: Training (including H&S) & Other Certification processes required by certain necessary professions is to be provided to employees to protect human health rights and develop.

SDG 13: Climate Action (Taking urgent action to combat climate change and its impacts)

Emission factor for the baseline scenario which was calculated by the Republic of Turkey Ministry of Energy and Natural Resources has been used. Accordingly, the project leads to mitigation of 97,481 tCO_2 per annum.

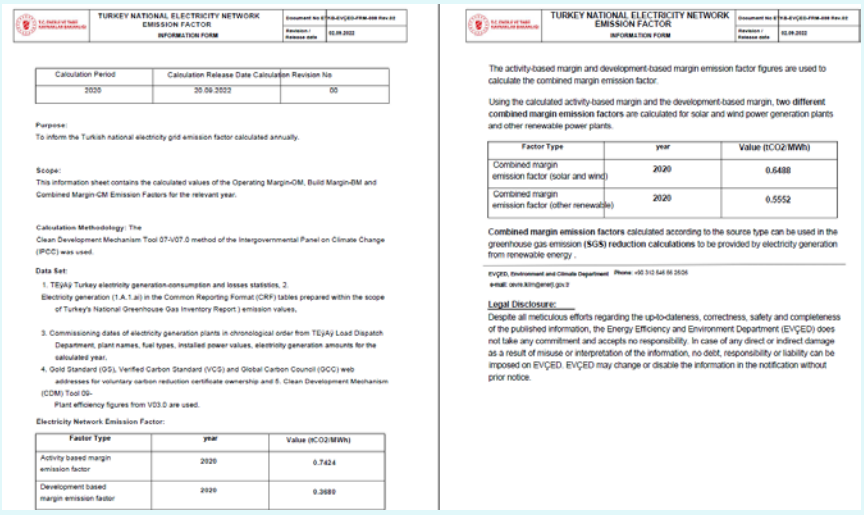
SDG	SDG Impact	Estimated Annual Average
SDG 13 Climate Action	Reduction of CO_2 emissions and other pollutants due to implementation of project activity	97,481 tonnes of CO_2e per annum NO_x: 159.87 tons SO_2: 742.21 tons

SDG 6 Clean Water and Sanitation	Appropriate disposal of wastewater as required by the Law on Water Pollution Control	No wastewater to be discharged to the environment in the project area.
SDG 7 Affordable and Clean Energy	Net electricity generated and delivered to the grid by the power plant in year y	152,900 MWh/year
SDG 8 Decent Work and Economic Growth	The project provides employment. Trainings to be held.	Around 7 people to be employed and trained.

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{grid,CM,y}$
Unit	tCO_2/MWh
Description	Combined margin CO_2 emission factor for the project electricity system in year y
Source of data	Ministry of Energy and Natural Resources, OM & BM values



TURKEY NATIONAL ELECTRICITY NETWORK EMISSION FACTOR INFORMATION FORM

Calculation Period	Calculation Release Date	Calculation Revision No.
2020	30.09.2022	00

Purpose:
To inform the Turkish national electricity grid emission factor calculated annually.

Scope:
This information sheet contains the calculated values of the Operating Margin-OM, Build Margin-BM and Combined Margin-CM Emission Factors for the relevant year.

Calculation Methodology: The Clean Development Mechanism Tool 07-V07.0 method of the Intergovernmental Panel on Climate Change (IPCC) was used.

Data Set:
1. TEİAŞ Turkey electricity generation-consumption and losses statistics, 2. Electricity generation (1.A.1.a) in the Common Reporting Format (CRF) tables prepared within the scope of Turkey's National Greenhouse Gas Inventory Report) emission values,
3. Commissioning dates of electricity generation plants in chronological order from TEİAŞ Load Dispatch Department, plant names, fuel types, installed power values, electricity generation amounts for the calculated year,
4. Gold Standard (GS), Verified Carbon Standard (VCS) and Global Carbon Council (GCC) web addresses for voluntary carbon reduction certificate ownership and 5. Clean Development Mechanism (CDM) Tool 09-
Plant efficiency figures from V03.0 are used.

Electricity Network Emission Factor:

Factor Type	year	Value (tCO2/MWh)
Activity based margin emission factor	2020	0.7424
Development based margin emission factor	2020	0.3680

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The activity-based margin and development-based margin emission factor figures are used to calculate the combined margin emission factor.

Using the calculated activity-based margin and the development-based margin, **two different combined margin emission factors** are calculated for solar and wind power generation plants and other renewable power plants.

Factor Type	year	Value (tCO2/MWh)
Combined margin emission factor (solar and wind)	2020	0.6488
Combined margin emission factor (other renewable)	2020	0.5552

Combined margin emission factors calculated according to the source type can be used in the greenhouse gas emission (**SGS**) reduction calculations to be provided by electricity generation from renewable energy .

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Legal Disclosure:
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	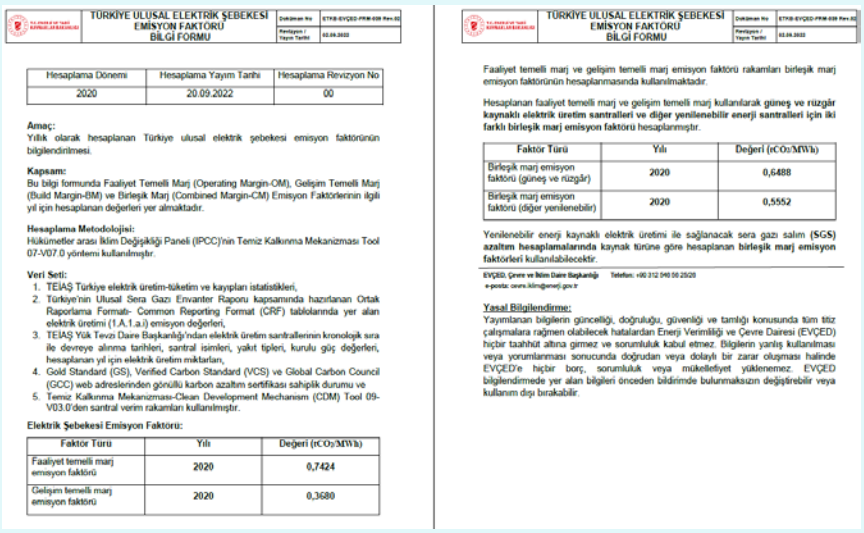 TÜRKİYE ULUSAL ELEKTRİK ŞEBEKESİ EMİSYON FAKTÖRÜ BİLGİ FORMU Hesaplama Dönemi: 2020 | Hesaplama Yayım Tarihi: 20.09.2022 | Hesaplama Revizyon No: 00 Amaç: Yıllık olarak hesaplanan Türkiye ulusal elektrik şebekesi emisyon faktörünün bilgilendirilmesi. Kapsam: Bu bilgi formunda Faaliyet Temelli Marj (Operating Margin-OM), Gelişim Temelli Marj (Build Margin-BM) ve Birleşik Marj (Combined Margin-CM) Emisyon Faktörlerinin ilgili yıl için hesaplanan değerleri yer almaktadır. Hesaplama Metodolojisi: Hükümetler arası İklim Değişikliği Paneli (IPCC)'nin Temiz Kalkınma Mekanizması Tool 07-V07.0 yöntemi kullanılmıştır. Veri Seti: 1. TEİAŞ Türkiye elektrik üretim-tüketim ve kayıpları istatistikleri, 2. Türkiye'nin Ulusal Sera Gazı Envanter Raporu kapsamında hazırlanan Ortak Raporlama Formatı- Common Reporting Format (CRF) tablolarında yer alan elektrik üretimi (1.A.1.a.i) emisyon değerleri, 3. TEİAŞ Yük Tevzi Daire Başkanlığı'ndan elektrik üretim santrallerinin kronolojik sıra ile devreye alınma tarihleri, santral isimleri, yakıt tipleri, kurulu güç değerleri, hesaplanan yıl için elektrik üretim miktarları, 4. Gold Standard (GS), Verified Carbon Standard (VCS) ve Global Carbon Council (GCC) web adreslerinden gönüllü karbon azaltım sertifikası sahiplik durumu ve 5. Temiz Kalkınma Mekanizması-Clean Development Mechanism (CDM) Tool 09-V03.0'den santral verim rakamları kullanılmıştır. Elektrik Şebekesi Emisyon Faktörü: Faktör Türü: Faaliyet temelli marj emisyon faktörü – Yılı: 2020 – Değeri (tCO2/MWh): 0,7424 Faktör Türü: Gelişim temelli marj emisyon faktörü – Yılı: 2020 – Değeri (tCO2/MWh): 0,3680 TÜRKİYE ULUSAL ELEKTRİK ŞEBEKESİ EMİSYON FAKTÖRÜ BİLGİ FORMU Faaliyet temelli marj ve gelişim temelli marj emisyon faktörü rakamları birleşik marj emisyon faktörünün hesaplanmasında kullanılmaktadır. Hesaplanan faaliyet temelli marj ve gelişim temelli marj kullanılarak güneş ve rüzgâr kaynaklı elektrik üretim santralleri ve diğer yenilenebilir enerji santralleri için iki farklı birleşik marj emisyon faktörü hesaplanmıştır. Faktör Türü: Birleşik marj emisyon faktörü (güneş ve rüzgâr) – Yılı: 2020 – Değeri (tCO2/MWh): 0,6488 Faktör Türü: Birleşik marj emisyon faktörü (diğer yenilenebilir) – Yılı: 2020 – Değeri (tCO2/MWh): 0,5552 Yenilenebilir enerji kaynaklı elektrik üretimi ile sağlanacak sera gazı salım (SGS) azaltım hesaplamalarında kaynak türüne göre hesaplanan birleşik marj emisyon faktörleri kullanılabilecektir. EVÇED, Çevre ve İklim Daire Başkanlığı Telefon: +90 312 586 86 28/28 e-posta: cevre.iklim@enerji.gov.tr Yasal Bilgilendirme: Yayımlanan bilgilerin güncelliği, doğruluğu, güvenliği ve tamlığı konusunda tüm titiz çalışmalara rağmen olabilecek hatalardan Enerji Verimliliği ve Çevre Dairesi (EVÇED) hiçbir taahhüt altına girmez ve sorumluluk kabul etmez. Bilgilerin yanlış kullanılması veya yorumlanması sonucunda doğrudan veya dolaylı bir zarar oluşması halinde EVÇED'e hiçbir borç, sorumluluk veya mükellefiyet yüklenemez. EVÇED bilgilendirmede yer alan bilgileri önceden bildirimde bulunmaksızın değiştirebilir veya kullanım dışı bırakabilir. https://enerji.gov.tr/Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/Bform2020.pdf Weblink might not be accessible outside of Turkey, therefore, screenshots are provided.
Value(s) applied	$EF_{grid,CM,y} = EF_{grid,OM,y} \times 0.75 + EF_{grid,BM,y} \times 0.25$ As given by the Ministry of Energy and Natural Resources, built margin is 0.3680 and operating margin is 0.7424. However, as per Tool 7 paragraph 72, build margin of second crediting period is used for the build margin value of the third crediting period. $EF_{grid,CM,y} = 0.7424 \times 0.75 + 0.3230 \times 0.25 = 0.6376$ tCO_2/MWh
Choice of data or Measurement methods and procedures	The coefficients are taken as 0.75 and 0.25 for OM and BM, respectively according to the methodology.
Purpose of data	To calculate baseline emission
Additional comment	SDG 13 Target 13.3: "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning"

B.6.3 Ex ante estimation of SDG Impact

Ex-ante emission reductions (ER_y) are calculated as follows:

$ER_y = BE_y – PE_y – LE_y$

Where:

ER_y = Emission reductions in year y (tCO_2)

BE_y = Baseline emissions in year y (tCO_2)

PE_y = Project Emissions in year y (tCO_2)

LE_y = Leakage emissions in year y (tCO_2)

Baseline emissions

Baseline emission is calculated according to the formula:

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

Where:

$EG_{PJ,y}$ = 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 (data is gathered from generation licence of the project which is 152,900 MWh/year)

Emission Factor

Considering this project is a wind power plant project, combined margin is calculated as per Tool 07 : “Tool to calculate the emission factor for an electricity system”, Equation (16), v07.0, as follows:

$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$

Wind and solar power generation project activities: w_{OM} = 0.75 and w_{BM} = 0.25 for the first crediting period and for subsequent crediting periods.[23] Hence:

$EF_{grid,CM,y} = EF_{grid,OM,y} \times 0.75 + EF_{grid,BM,y} \times 0.25$

As given by the Ministry of Energy and Natural Resources, operating margin is 0.7424 and built margin is 0.3680. However, as per Tool 7 paragraph 72, build margin of second crediting period is used for the build margin value of the third crediting period.

$EF_{grid,CM,y} = 0.7424 \times 0.75 + 0.3230 \times 0.25 = 0.6376\ tCO_2/MWh$

[23] Para. 86(a) : https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf

BEy = 152,900 MWh × 0.6376 tCO2e/MWh = 97,481 tCO2e

Project emissions

For most renewable energy power generation project activities, PEy = 0. However, some project activities may involve project emissions that can be significant. These emissions shall be accounted for as project emissions by using the following equation (Equation (1) of ACM0002 v21.0):

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

Where:

PE_y	=	Project emissions in year *y* (t CO_2e/yr)
$PE_{FF,y}$	=	Project emissions from fossil fuel consumption in year *y* (t CO_2/yr)
$PE_{GP,y}$	=	Project emissions from the operation of dry, flash steam or binary geothermal power plants in year *y* (t CO_2e/yr)
$PE_{HP,y}$	=	Project emissions from water reservoirs of hydro power plants in year *y* (t CO_2e/yr)
$PE_{BESS,y}$	=	Project emissions from charging of a BESS using electricity from the grid or from fossil fuel electricity generators (t CO_2e/yr)

- $PE_{FF,y}$ is not included since as per para. 37 of ACM0002, v21, for all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected.
- $PE_{GP,y}$ is not included since the project is not a geothermal power plant.
- $PE_{HP,y}$ is not included since project is a wind power project.
- $PE_{BESS,y}$ is not included since the project does not include charging of a BESS using electricity from the grid or from fossil fuel electricity generator.

Therefore, PE_y = 0.

Leakage

No leakage emissions are considered (para. 61 of ACM0002, v21). The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from

fossil fuel use (e.g. extraction, processing, transport). These emissions sources are neglected.
Also, the energy generating equipment is not transferred from or to another activity. Therefore, leakage is considered as “0”.

So, final emission reduction value is 97,481 **tCO_2**/year, and 682,367 **tCO_2** for the whole crediting period of 7 years.

B.6.4 Summary of ex ante estimates of each SDG Impact

SDG 13

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
2023 (11/08/2023 - 31/12/2023)	38,191	0	38,191
2024	97,481	0	97,481
2025	97,481	0	97,481
2026	97,481	0	97,481
2027	97,481	0	97,481
2028	97,481	0	97,481
2029	97,481	0	97,481
2030 (01/01/2030 - 10/08/2030)	59,290	0	59,290
Total	682,367	0	682,367
Total number of crediting years	7 years		
Annual average over the crediting period	97,481	0	97,481

SDG 7

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
2023	0	59,903.29	59,903.29

(11/08/2023 - 31/12/2023)			
2024	0	152,900.00	152,900.00
2025	0	152,900.00	152,900.00
2026	0	152,900.00	152,900.00
2027	0	152,900.00	152,900.00
2028	0	152,900.00	152,900.00
2029	0	152,900.00	152,900.00
2030 (01/01/2030 - 10/08/2030)	0	92,996.71	92,996.71
Total	0	1,070,300	1,070,300
Total number of crediting years	7 years		
Annual average over the crediting period	0	152,900	152,900

SDG 8

Around 7 people to be employed. Around 6 staff to be trained.

SDG 6

No wastewater to be discharged to the environment in the project area

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 13

Data / Parameter	Emissions Reductions in tCO_2
Unit	tCO_2
Description	Reduction of CO_2 emissions due to implementation of project activity

Source of data	Electricity generated by the project and Turkey's national electricity grid emission factor which is provided by Ministry of Energy and Natural Resources will be used as reference in calculation of the emission reduction.
Value(s) applied	National electricity grid emission factor is 0.6376 tCO_2/MWh. Estimated annual emission reduction is 97,481 tonnes of CO_2.
Measurement methods and procedures	The project will contribute to "Emissions Reductions or Removals and/or Adaptation to Climate Change" by reducing CO_2 emissions caused by fossil fuel-fired power plants that are displaced due to the project activity, in line with GS4GG principles. The Project will contribute to SDG Target 13.3 through an expected amount of 97,481 tonnes of CO_2e per year, which represent direct and quantifiable impact on climate security.
Monitoring frequency	Continuous measuring, monthly recording
QA/QC procedures	Electricity generation which makes base for calculation of emission reductions is metered by appropriate electricity meters which comply with the regulations. QA/QC procedures for these meters (provided in table of $EG_{PJ,facility,y}$) apply for this parameter as well.
Purpose of data	To calculate the baseline emission value; and also to monitor the contribution to SDG 13 (Take urgent action to combat climate change and its impacts)
Additional comment	-

Data / Parameter	Air Quality
Unit	tons
Description	Reduction of SO_2 and NO_x emissions due to implementation of project activity that would otherwise be emitted by thermal power plants

Source of data	Electricity generated by Düzova WPP and NO_X and SO_2 emission data from GHG inventory of Turkey will be used as reference in calculation of the emission reduction.
Value(s) applied	Total SO_2 emission related to electricity generation is about 1,488.80 kt for 2020 according to National Inventory of Turkey[24]. Considering that electricity generation in 2020 is 306,703.10 GWh[25], SO_2 emission per MWh is calculated as 4.85 kg/MWh. Therefore, the SO_2 emission reduction is calculated as 742.21 tons per year and 5,195.45 tons for the crediting period. Total NO_x emission related to electricity generation is about 320.68 kt for 2020 according to National Inventory of Turkey[26]. NO_x emission per MWh is calculated as 1.05 kg/MWh. Therefore, the NO_x emission reduction is calculated as 159.87 tons per year and 1,119.08 tons for the crediting period.
Measurement methods and procedures	The net electricity supplied by the Project will be continuously measured and recorded by EPIAS; and will be kept by the Project Owner. NO_x and SO_2 emission data from GHG inventory of Turkey will be used as reference in calculation of the emission reduction.
Monitoring frequency	Yearly
QA/QC procedures	Electricity generation which makes base for calculation of emission reductions is metered by appropriate electricity meters which comply with the regulations. QA/QC procedures for these meters (provided in table of $EG_{PJ,facility,y}$) apply for this parameter as well.

[24] https://unfccc.int/documents/461898 , Table 1s1
[25] https://webapi.teias.gov.tr/file/56774b2a-087b-4431-9479-29f1cb5d0d87?download
[26] https://unfccc.int/documents/65690 , Table 1s1

Purpose of data	To calculate the baseline emission value; and also to monitor the contribution to SDG 13 (Take urgent action to combat climate change and its impacts)
Additional comment	13.2.1. Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development

SDG 7

Data / Parameter	$EG_{PJ,facility,y}$
Unit	MWh
Description	Quantity of net electricity generation supplied by the project plant to the grid in year y
Source of data	Electricity meter(s) EPİAŞ records/screenshots are the main source
Value(s) applied	Estimated annual generation forming the basis for emission reduction calculation is 152,900 MWh/year
Measurement methods and procedures	$EG_{PJ,grid,y}$ calculation is done by EPIAS records (screenshots) and which are more conservative than the site records. On the last day of each month, the production index is taken from the main as well as the reserve meter by Market Financial Settlement Center (in Turkish EPİAŞ, a state institution responsible for electricity market settlement operations) via Automatic Meter Reading System (OSOS) In following month, EPİAŞ issue electricity generation records for each generation unit which can be accessed by plant operators via logging to secured website. These records are used to monitor net monthly generation of the power plant. For each month,

the net electricity amount supplied to the grid is calculated by electricity fed into grid minus electricity withdrawn from the grid available in EPİAŞ records.

Monthly meter reading protocols, which are kept by staff, are used to cross-check the EPİAŞ records. TEIAS notices are used to cross-check the EPİAŞ records. TEIAS sends an electronic spreadsheet that includes daily and monthly electricity generation and withdrawn amounts for each power plant. Thus, cross-check source is the TEIAS meter readings. ID specifications of the metering device used at transformer center are;

	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC	LZQJ-XC
Class	0.2S	0.5S
Serial number	11590286	8088829
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	-	24/10/2020

	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC	LZQJ-XC
Class	11590287	0.5S
Serial number	0.2S	8088830
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	-	24/10/2020

The meters shall be calibrated every 10 years. The backup meters was installed and calibrated on 08/12/2019 so that next calibration will be carried out for the backup meters in 12/2029. The main meters have been changed on

28/08/2022, therefore, their next calibration has to be in August 2032.

Meter change details are provided in the table below.

	Old Meter				New Meter	
Meter	**Brand**	**Model**	**Class**	**Serial**	**Date**	**Serial**
Main Meter (A)	ITRON	SL7000	0.5S	65007595	28/08/2022	11590286
Main Meter (B)	ITRON	SL7000	0.5S	65007594	28/08/2022	11590287
Spare Meter (A)	ELSTER	A1500	0.2S	00388185	08/12/2019	8088829
Spare Meter (B)	ELSTER	A1500	0.2S	00388184	08/12/2019	8088830

Monitoring frequency	Continuous measurement and at least monthly recording
QA/QC procedures	In cases where electricity meters are regulated (e.g. the electricity is supplied to the electric grid), the electricity meter will be subject to regular maintenance and testing in accordance with the stipulation of the meter supplier and/or as per the requirements set by the grid operators or national requirements. The calibration of meters, including the frequency of calibration, should be done in accordance with national standards or requirements set by the meter supplier or requirements set by the grid operators. The accuracy class of the meters should be in accordance with the stipulation of the meter supplier and/or as per the requirements set by the grid operators or national requirements. Date of calibration of the meters are provided above, as stated in first index protocols. Hence, this calibration will be valid for ten years[27] according to regulations related with metering devices.

[27] http://www.resmigazete.gov.tr/eskiler/2008/08/20080807-3.htm

	Additionally, the meter tests were done and there is no issue in the condition of the meters.
Purpose of data	To calculate emission reduction value by using renewable energy and understand its impact on renewable energy share in total energy consumption under the concept of SDG 7.
Additional comment	-

SDG 8

Data / Parameter	Principle 3 - Community Health and Safety - Quantitative employment and income generation
Unit	Number of locally recruited staff and their social security records
Description	Ensuring that the staff receives their full salaries on time.
Source of data	Social Security Records to be provided by the Project Owner.
Value(s) applied	The project has created job opportunities.
Measurement methods and procedures	The project owner is committed to ensuring that the staff receives their full salaries on time. Number of employees and the evidence for their wages being paid will be checked from the social security records, which will be provided by the Project Owner.
Monitoring frequency	Annually
QA/QC procedures	Social security records will be provided by the Project Developer.
Purpose of data	To monitor the contribution to SDG 8 and Principle 3.
Additional comment	Reference documents are social security records of project staff.

Data / Parameter	Principle 3 - Community Health and Safety - Quality of Employment
Unit	Number of certificates issued/trainings provided
Description	Contribution to quality of employment by ensuring that the staff is trained and certified for the required positions
Source of data	Training Records (including H&S) & Other Certificates required by certain professions, if necessary
Value(s) applied	The staff will be given required trainings.
Measurement methods and procedures	All employees will attend trainings on health & safety. For positions that require specific skills staff will either be trained or certified staff will be recruited.
Monitoring frequency	Annually
QA/QC procedures	The training programmes help increase the efficiency of the workforce and provides employees skilled at their job. This not only helps the company but to self-improvement of individual employees.
Purpose of data	To monitor the contribution to SDG 8 and Principle 3.
Additional comment	Reference documents for this parameter are training certificates of the staff.

Data / Parameter	Principle 4.3 Land Tenure and Other Rights - Compensation for expropriation.
Unit	-
Description	Expropriation was needed for a small area within the project boundaries.
Source of data	Compensation documents
Value(s) applied	Expropriation works are continuing for the project site. So far, the deed of consents of many lands has been finalized and some lands have been purchased by the project owner. The documents (deed of consent documents) showing the current status of the lands are

	used as reference. Works on this subject will continue in the coming period.
Measurement methods and procedures	Compensation documents
Monitoring frequency	Annually
QA/QC procedures	-
Purpose of data	To monitor the contribution to SDG 8 and Principle 4.3.
Additional comment	Expropriation process has been going on. Official compensation documents are as reference documents.

SDG 6

Data / Parameter	Principle 9.4 Release of pollutants - Water Quality and Quantity
Unit	-
Description	Appropriate disposal of wastewater as required by the Law on Water Pollution Control
Source of data	Assessing collection methods during site visits and checking waste disposal records.
Value(s) applied	Disposal records will be provided to show that all wastes have been collected and disposed properly. No wastewater generation in the baseline scenario
Measurement methods and procedures	Domestic wastewater will be collected and disposed to the sewage system via trucks; and the disposal records will be kept by the Project Owner.
Monitoring frequency	Annually
QA/QC procedures	Disposal records (sewage truck) will be kept by the project owner for QA/QC purposes.
Purpose of data	To monitor the contribution to SDG 6 and Principle 9.4.
Additional comment	-

Others

Data / Parameter	Principle 9.5 Hazardous and Non-hazardous Waste – Other Pollutants
Unit	-
Description	Proper management of waste oil
Source of data	Assessing disposal methods during site visits and checking waste oil disposal records.
Value(s) applied	No hazardous waste generation in the baseline scenario
Measurement methods and procedures	Waste oil from equipment will be collected properly in line with the relevant regulation and disposed via accredited abatement companies. Waste oil will be disposed in line with regulation # 26952 on control of waste oils[28] .
Monitoring frequency	Annually
QA/QC procedures	Disposal records will be kept by the project owner for QA/QC purposes.
Purpose of data	To monitor the contribution to Principle 9.5.
Additional comment	-

Data / Parameter	Principle 9.9 Animal Welfare - Biodiversity
Unit	-
Description	Ensuring that the Project creates no disturbance to the regional habitat
Source of data	Assigned personnel will be responsible for observation of project site bi-weekly. The personnel will record their observations and report them to the project manager every 6 months.

[28] Regulation: https://www.resmigazete.gov.tr/eskiler/2010/03/20100330-12.htm

Value(s) applied	No disturbance to regional habitat in the baseline scenario
Measurement methods and procedures	Ornithology studies had been conducted to ensure there is no disturbance to the regional habitat.
Monitoring frequency	Annually
QA/QC procedures	The logbook placed at the village head's office will be checked regularly to see if any carcass have been spotted by the local people
Purpose of data	To monitor the contribution to Principle 9.9.
Additional comment	-

Data / Parameter	Principle 4.1 - Sites of Cultural and Historical Heritage - Archaeological Site Control
Unit	-
Description	The impact of the turbines to the archaeological site
Source of data	Project Proponent, inputs/grievances from the stakeholders
Value(s) applied	There is no adverse impact on the archaeological site
Measurement methods and procedures	Conservation plans developed by Ministry of Culture and Tourism and Project Proponent
Monitoring frequency	Once Each Verification
QA/QC procedures	The logbook placed at the village head's office will be checked regularly to see if any local people noticed any impact, which is highly unlikely as all the permits have been taken and completed.
Purpose of data	To demonstrate that the project does not impact the archaeological site
Additional comment	-

B.7.2 Sampling plan

N/A

B.7.3 Other elements of monitoring plan

Data handling was slightly revised due to innovation in technology that enables TEİAŞ to read meters remotely. Thus, under this process, the meter is read remotely at the end of every month and published through website of TEİAŞ which can be accessed by project owner to check the correctness of the data. Besides, the data that is read by TEİAŞ, project owner carries monthly protocol to cross-check the data. Once the meter data is correct then the amount is also published in TEİAŞ website which is also accessible by project owner. When all data is correct, an invoice (receipt of sale) is prepared by Ütopya Elektrik and delivered to TEIAŞ. Since that date, EPIAS supplies the data. So that, monthly data from EPIAS are stored electronically on EPIAS website and this data can be accessed by login of Project Developer. Düzova WPP also stores a hardcopy of the monthly meter reading protocols for back up of systematic storage of data.

Potential leakage emissions in the context of power sector projects are emissions arising due to activities such as power plant construction, fuel handling and land inundation. However, according to the methodology, those emission sources are treated as negligible.

two meters are installed in a redundant manner keeps the uncertainty level of the only parameter for baseline calculation low. High data quality of this parameter is not only in the interest of the emission reduction monitoring, but paramount for the business relation between the plant operator and the electricity buyer.

On the last day of each month, the production index is taken from the main as well as the reserve meter by Energy Markets Regulatory Authority (EMRA)[29]. In following month, EPİAŞ issue electricity generation records which can be accessed by plant operators via logging to secured website. These records are used to monitor net monthly generation of the power plant. For each month, the net electricity amount supplied to

[29] Market operations has moved to EPİAŞ from PMUM on 01/09/2015

the grid is calculated by electricity fed into grid minus electricity withdrawn from the grid available in EPİAŞ records.

TEIAS notices are used to cross-check the EPİAŞ records. TEIAS sends an electronic spreadsheet which includes daily and monthly electricity generation and withdrawn amounts for each power plant.
The data are kept by the project owner at least two years after the last issuance of GS VERs. Besides the data that can be get from meters, production amount can be checked from SCADA system of GE. SCADA figures differ a bit with meter data due to internal losses.

Operation and management diagram is presented below.

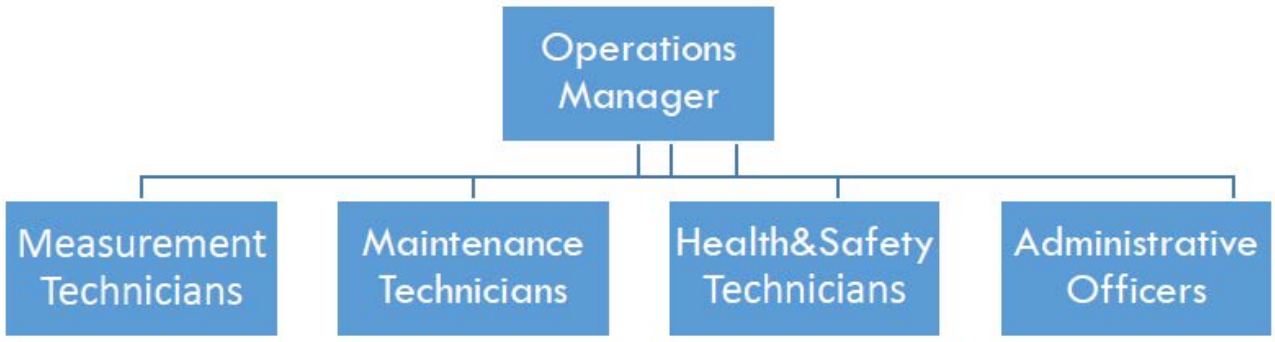

Figure 8. Operation and Management Diagram of the Düzova WPP

The calibration of the monitoring equipment was carried out according to the information provided in the GS-VER PDD. The GS-VER PDD mainly includes the following obligation for the calibration of the appropriate meters:
According to the Article 2 of the 'Communiqué regarding the Meters to be used in the Electricity Market ': 'The meters to be used in the electricity market shall be compliant with the standards of Turkish Standards Institute or IEC and have obtained "Type and System Approval" certificate from the Ministry of Trade and Industry.' Therefore, Ministry of Trade and Industry (Ministry) is responsible from control and calibration of the meters. Paragraph b) of the Article 9 of the 'Regulation of Metering and Testing of Metering Systems' (Regulation) of Ministry states that: ' b) Periodic tests of meters of electricity, water, coal gas, natural gas and current and voltage transformers are done every 10 years.' Therefore, periodic calibration of the meters are done every 10

years.

Also according to Article 67 (page 20) of this regulation, the calibration shall be done in calibration stations which have been tested and approved by Ministry of Trade and Industry. Article 10 d) of Communiqué requires the meters shall be three phase four wire and Article 64 of Regulation clearly states how calibration shall be performed for this kind of meters.

According to Article 3 of System Usage Agreement done by ÜTOPYA and TEIAS; other than periodic tests, if a party alleges the meters are not working appropriately tests of the meters are done by presence of both parties. If, after controls, it is seen that the meter is not working appropriately, the measurements of reserve meters are taken into account beginning from date both meters are reading the same (page 3, 2-c)

There are two metering points and each of them have two meters, one main and one reserve, in the power plant. The total generation is being calculated by adding up the metering of two meters. Details of the meters are given below. The meters shall be calibrated every 10 years.
The spare meters was replaced and calibrated on 08/12/2019 so that next calibration will be carried out in 12/2029. The main meters were replaced and calibrated on 28/08/2022, therefore, their next calibration will be carried out in 08/2032. The information is provided below in tabular format.

Table 9. Latest meter changes

Meter	Brand	Model	Class	Old Meter	Date	New Meter
Main Meter (A)	ITRON	SL7000	0.5S	65007595	28/08/2022	11590286
Main Meter (B)	ITRON	SL7000	0.5S	65007594	28/08/2022	11590287
Spare Meter (A)	ELSTER	A1500	0.2S	00388185	08/12/2019	8088829
Spare Meter (B)	ELSTER	A1500	0.2S	00388184	08/12/2019	8088830

Table 10. Specification of meters are as follow: First metering point (A)

	Main Meter	Spare Meter
Brand	EMH	EMH
Type	LZQJ-XC	LZQJ-XC
Class	0.2S	0.52

Serial number	11590286	8088829
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	28/08/2022	24/10/2020 28/02/2022

Table 11. Specification of meters are as follow: Second metering point (B)

	Main Meter	**Spare Meter**
Brand	EMH	EMH
Type	LZQJ-XC	LZQJ-XC
Class	11590287	0.5S
Serial number	0.2S	8088830
Date of calibration	28/08/2022	08/12/2019
Due date of calibration	08/2032	12/2029
Testing Dates	28/08/2022	24/10/2020 28/02/2022

As the measuring devices are sealed by TEIAŞ, Ütopya Elektrik cannot intervene with the devices. In case of unforeseen problems or failures of the meters or if any differences occur between primary and secondary devices TEIAŞ has to be informed for necessary maintenance and calibration. There is an agreement between Ütopya Elektrik and TEIAŞ that in case of problems or failures of the meters TEIAŞ reacts as fast as possible to solve the problem. The electrical single line diagram is shown in Figure 3.

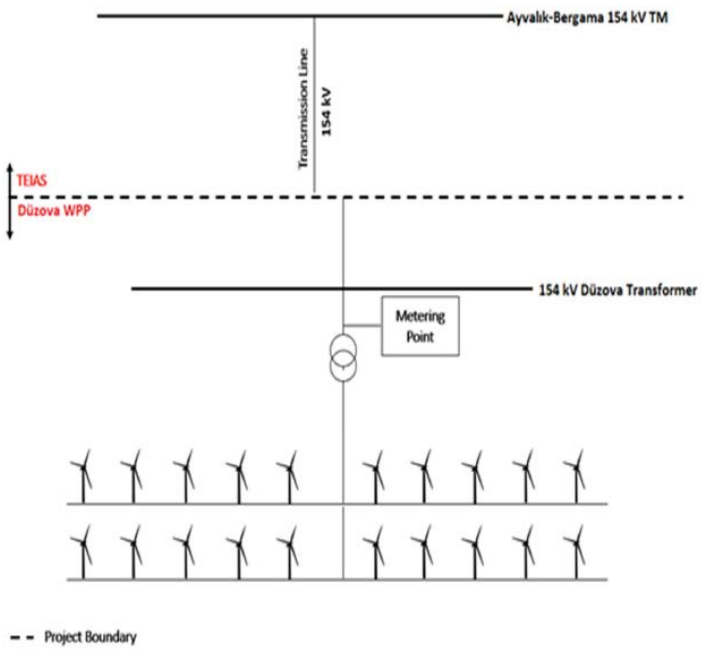

Figure 9. Electrical Single Line Diagram

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

Start date of project activity is determined as 17/02/2009 which is the date of electromechanical contract with GE.

C.1.2 Expected operational lifetime of project

The operational lifetime of the project is about 49 years as per the license issued. According to the technical lifetime of turbines which is given as 25 years as per the tool[30] and also around 20 years[31] according to another source.

Project will be delivered to government authority at no cost at the end of license period.

[30] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf
[31] See, http://www.talentfactory.dk/en/tour/econ/oandm.htm

C.2. Crediting period of project

C.2.1 Start date of crediting period

The start date of the third crediting period is 11/08/2023 and the end date is 10/08/2030.

First crediting period (7 years): 11/08/2009 – 10/08/2016

Second crediting period (7 years): 11/08/2016 - 10/08/2023

Third crediting period (7 years): 11/08/2023 – 10/08/2030

C.2.2 Total length of crediting period

This is the third crediting period. Length of the crediting period is 7 years between 11/08/2023 – 10/08/2030.

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle 4.1 - Sites of Cultural and Historical Heritage **Archaeological Site Control**	The project has been implemented in a way that does not cause any negative impact on the archeological site. However, a monitoring parameter is included in the monitoring plan.
Principle 3 – Community Health and Safety **Quality of Employment**	All employees will attend trainings on health & safety. For positions that require specific skills staff will either be trained or certified staff will be recruited. Training records and other certificates will be checked annually.
Principle 3 – Community Health and Safety	The project owner is committed to ensuring that the staff receives their full salaries on time. Number of

Quantitative employment and income generation	employees and the evidence for their wages being paid will be checked from the social security records, which will be provided by the Project Owner.
Principle 4.3 – Land Tenure and Other Rights **Expropriation**	Expropriation process has been going on. Official compensation documents are as reference documents. Refer to Section B.7.1.
Principle 9.4 – Release of Pollutants **Water Quality and Quantity**	Disposal records will be provided to show that all wastes have been collected and disposed properly. Domestic wastewater will be collected and disposed to the sewage system via trucks; and the disposal records will be kept by the Project Owner. Monitoring will be done annually.
Principle 9.5 – Hazardous and Non-hazardous Waste **Waste Oil**	Waste oil from equipment will be collected properly in line with the relevant regulation and disposed via accredited abatement companies. Waste oil will be disposed in line with regulation # 26952 on control of waste oils. Monitoring will be done annually.
Principle 9.9 – Animal Welfare **Biodiversity**	Assigned personnel will be responsible for observation of project site bi-weekly. The personnel will record their observations and report them to the project manager every 6 months.

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and	As stated in Gold Standard Gender Policy document, “foundational gender sensitive certificiation” which is mandatory for every project requires compliance with the gender ‘do no harm’ safeguard, gender-gap analysis and gender sensitive stakeholder consultations. Although the project is a renewable energy project

implementation as outlined in the Gender Policy?	and does not have negative impacts on men and women, it complies with the criteria mentioned. Moreover, Turkey has ratified ILO convention 100 and 111[32] and discrimination based on gender is illegal in Turkey. The project tries to align with the national gender strategy. So, the project does not involve and is not complicit in any form of discrimination based on gender difference.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The project aims to create new employment and income opportunities within the scope of SDG 8. While doing this, a gender-equal strategy is implemented by creating employment opportunities for both man and woman without discrimination. According to the Woman Empowerment Strategy Paper and Action Plan prepared by the Ministry of Family and Social Policies (2018), there are 21 targets classified under 5 main fields in order to enhance participation of women to the society.[33] In this action plan regarding the years 2018 – 2023, economy and employment-oriented strategies are represented for women since the labor force activity of women is not at desired level compared to the EU countries. According to 2017 statistics tabulated in the report, labor force activity of women is declared as 33.6%[34] and it is aimed that this percentage will be 41% in 2023.[35] Accordingly, the project shows parallelism with the national strategies developed for women.

[32] https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/genericdocument/wcms_645630.pdf

[33] http://www.sp.gov.tr/upload/xSPTemelBelge/files/RySPo+KADININ_GUCLENMESI_STRATEJI_BELGESI_VE_EYLEM_PLANI_2018-2023_.pdf, Page 17

[34] http://www.sp.gov.tr/upload/xSPTemelBelge/files/RySPo+KADININ_GUCLENMESI_STRATEJI_BELGESI_VE_EYLEM_PLANI_2018-2023_.pdf, Page 76

[35] http://www.sp.gov.tr/upload/xSPTemelBelge/files/RySPo+KADININ_GUCLENMESI_STRATEJI_BELGESI_VE_EYLEM_PLANI_2018-2023_.pdf, Page 79

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Turkey has ratified ILO convention 100 and 111[36] and discrimination based on gender is illegal in Turkey. The project tries to align with the national gender strategy. So, the project does not involve and is not complicit in any form of discrimination based on gender difference. Therefore, an Expert is not required for the Gender Safeguarding Principles & Requirements.
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1 Summary of stakeholder mitigation measures

There is no stakeholder grievance/compliant from the local stakeholders in the beginning of the second crediting period. There is no grievance / compliant received during the first crediting period. The plant staff and the nearby villagers are in communication all the time since there are many employees of the plant living in the nearby villages. The culture of communication in the area is verbal, therefore, people prefer to convey their messages verbally. Logbook is located at the mukhtar's office of the Aşağıkırıklar Village. No legal contest or dispute that has arisen with the project during the second crediting period. The project is operational for a long time since 2009 and there has been no major issues related to the stakeholders. Therefore, no additional stakeholder meeting was conducted.

[36] https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-ankara/documents/genericdocument/wcms_645630.pdf

E.2 Final continuous input / grievance mechanism

METHOD	INCLUDE ALL DETAILS OF CHOSEN METHOD (S) SO THAT THEY MAY BE UNDERSTOOD AND, WHERE RELEVANT, USED BY READERS.
Continuous Input / Grievance Expression Process Book (mandatory)	Local stakeholders are welcome to communicate face-to-face with the mukhtar or directly with the plant's staff. Also, they can use the logbook which was left at mukhtar's office of the Aşağıkırıklar Village to submit their grievances. This logbook is checked regularly by the plant's staff. The project owner's contact information has been present with the mukhtar since the project start date.
GS Contact (mandatory)	help@goldstandard.org
Other	

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
P.1 |HUMAN RIGHTS		
P.1.1.1 |	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
P.1.1.1 |	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
P.1.1.2 |	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.1.1.3 |	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
P.1.1.3 |	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
...		
Would the project potentially involve or lead to:		
P.1.1.1 |	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.2 |	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY ☒ NO

Turkey has ratified ILO convention 100, 111, 122 and 142, which provides gender equality. It also shows parallelity with national strategies prepared for women employment by creating opportunities for all. Turkey has ratified European Convention on Human Right on 10/03/1954[37]. Therefore, the project is not expected to violate the rules regarding human rights. Therefore, no mitigation measure is required for this indicator.

P.2 |GENDER EQUALITY AND WOMEN'S EMPOWERMENT

P.2.1.1 |	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.2.1.2 |	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
P.2.1.2 |	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
P.2.1.2 |	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO
P.2.1.2 |	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
P.2.1.3 |	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
P.2.1.4 |	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

....

Would the project potentially involve or lead to:		
P.2.1.1 |	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY

[37] https://www.echr.coe.int/Documents/CP_Turkey_ENG.pdf

		☒ NO
P.2.1.1 |	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.

....

P.3 |COMMUNITY HEALTH AND SAFETY

P.3.1.1 |	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
P.3.1.2 |	Does the project involve any potential risks to the workers' safety and health?	☒ YES ☐ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Turkey has ratified ILO convention 155 and about work safety and precautions[38]. Staff will be trained during construction and operation phases, such as general HSE, risk, first aid, etc. The training records will be checked.

Would the project potentially involve or lead to:

P.3.1.1 |	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
P.3.1.2 |	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO

[38] https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/WCMS_356966/lang--en/index.htm

P.3.1.2 |	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO
Briefly describe below how the project is addressing any identified risk related to community health and safety.		

P.4 |CULTURAL HERITAGE, INDIGENOUS PEOPLE, DISPLACEMENT AND RESETTLEMENT

P.4.1 |Sites of Cultural and Historical Heritage

P.4.1.1 |	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		

Would the project potentially involve or lead to:

P.4.1.1 |	activities adjacent to or within a cultural heritage site?	☒ YES ☐ POTENTIALLY ☐ NO
P.4.1.1 |	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 |	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage	☐ YES ☐ POTENTIALLY

	for commercial or other purposes?	☒ NO
P.4.1.2 |	If answer to question above is “YES” or “POTENTIALLY” - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☒ NA
P.4.1.3 |	If answer to question above is “YES” - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☒ NA
P.4.1.4 |	If answer to question above is “YES” - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.1.4 |	If answer to question above is “YES”, has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

There is a 3rd degree archeological site near the turbines. There is no adverse impact on the archaeological site caused by the turbines. Required permits were taken from Republic of Turkey Ministry of Culture and Tourism. Monitoring parameter is added for this parameter.

P.4.2 |*Forced Eviction and Displacement*

P.4.2.1 |	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

....

Would the project potentially involve or lead to:

P.4.2.1 |	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	If answer to question above is “YES” or “POTENTIALLY”, - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and	☐ YES ☐ NO ☒ NA

	agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	
P.4.2.3 |	If answer to question above is “YES” - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.2.3 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

....

P.4.3 |LAND TENURE AND OTHER RIGHTS

P.4.3.1 |	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☒ YES ☐ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

....

Would the project potentially involve or lead to:

P.4.3.1 |	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☒ YES ☐ POTENTIALLY ☐ NO
P.4.3.1 |	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.2 |	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
P.4.3.2 |	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA
P.4.3.3 |	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
P.4.3.4 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

P.4.3.4 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
P.4.3.5 |	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

There are state-owned lands such as forest areas within the project site and permits were be taken in accordance with the relevant legislation. Moreover, For the remaining small agricultural area, expropriation studies were carried out and related document could be shared which proves payments for expropriation.
Project does not involve any settlement area. In addition, most of the area where the project is carried out is forestless forest land and a small part is agricultural land. Permission was obtained from the relevant government agencies in order to use the forestless forest land for project works. For the remaining small agricultural area, expropriation studies were carried out. There is no uncertainty. Related permits and payments for expropriation were carried out and being carried out according to laws and regulations.

P.4.4 |INDIGENOUS PEOPLES

P.4.4.1 |	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

....

Would the project potentially involve or lead to:

P.4.4.1 |	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 |	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 |	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.7 |	If answer to above questions is ’’YES’’ or “POTENTIALLY”, - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people?	☐ YES ☐ NO ☒ NA

	- Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	
P.4.4.3 |	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.4 |	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.5 | P.4.4.6 |	If answer to question above is “YES” or “POTENTIALLY” - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? ? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	☐ YES ☐ NO ☒ NA
P.4.4.8 |	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
P.4.4.8 |	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA

P.4.4.9 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.4.9 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.5 |CORRUPTION

P.5.1.1 |	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
P.5.1.1 |	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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ECONOMIC SAFEGUARDING PRINCIPLES

P.6 |ECONOMIC IMPACTS

P.6.1 |LABOUR RIGHTS AND WORKING CONDITIONS

P.6.1.1 |	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
P.6.1.1 |	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
P.6.1.2 |	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
P.6.1.3 |	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO
P.6.1.4 | P.6.1.5 |	Does the project allow child labor?	☐ YES ☒ NO
P.6.1.7 | P.6.1.8 |	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO
P.6.1.9 |	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse,	☐ YES ☒ NO

	bullying, or exploitation, including gender-based violence (GBV)?	
P.6.1.10 |	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
....		
Would the project potentially involve or lead to: (NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)		
P.6.1.1 |	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	absence of documented working agreements with all individual workers *if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	use of migrant workers? *if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	having no arrangements for basic services[39] for workers? *the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner*	☐ YES ☐ POTENTIALLY ☒ NO

[39] Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

	consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association	
P.6.1.2 |	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.3 |	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
P.6.1.7 |	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
P.6.1.7 |	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES ☒ NO
P.6.1.7 |	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO
P.6.1.8 |	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
P.6.1.9 |	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
P.6.1.10 |	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
P.6.1.11 |	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.6.2 |NEGATIVE ECONOMIC CONSEQUENCES

P.6.2.1 |	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
P.6.2.2 |	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
P.6.2.2 |	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.6.2.2 |	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.2.2 |	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.7 |**CLIMATE AND ENERGY**

P.7.1 |GHG EMISSIONS

P.7.1.1 |	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.7.1.1 |	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY

		☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.7.2 |ENERGY SUPPLY

P.7.2.1 |	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.7.2.1 |	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.8 |WATER

P.8.1 |IMPACT ON NATURAL WATER PATTERNS/FLOWS

P.8.1.1 |	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
P.8.1.1 |	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
P.8.1.1 |	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
P.8.1.1 |	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:		
P.8.1.1 |	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
....		
P.8.2 |EROSION AND/OR WATER BODY INSTABILITY		
P.8.2.1 |	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
....		
Would the project involve or lead to:		
P.8.2.2 | - P.8.2.5 |	negatively impact on the catchment area? *If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.*	☐ YES ☐ POTENTIALLY ☒ NO
P.8.2.6 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
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P.9 |ENVIRONMENT, ECOLOGY AND LAND USE

P.9.1 |LANDSCAPE MODIFICATION AND SOIL

P.9.1.1	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? *If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.*	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
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Would the project involve or lead to:		
P.9.1.4 |	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.1.4 |	if answer to above question “yes” or “potentially”, does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
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P.9.2 |VULNERABILITY TO NATURAL DISASTER

P.9.2.1 |	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
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Would the project involve or lead to:		
P.9.2.2 |	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.2.2 |	if answer to above question “yes” or “potentially”, did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
….		
P.9.3 |BIOSAFETY AND GENETIC RESOURCES		
P.9.3.1 |	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
….		
Would the project involve or lead to:		
P.9.3.1 |	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO
P.9.3.1 |	If answer to above question is “yes” has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES ☐ NO ☒ NA
P.9.3.2 |	If answer to above question is “yes” has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
P.9.3.3 |	Forestry (for example Afforestation/Reforestation) involving GMO planting? *Note - Forestry projects (for example Afforestation/ Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.*	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
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P.9.4 |RELEASE OF POLLUTANTS

P.9.4.1 |	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☒ YES ☐ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Domestic waste water and solid waste is expected to be generated. However; they will not result in adverse effects on the environment since they will be managed as per the requierements of national legislation. Project will not have any adverse impact on water quality and quantity. Domestic waste water will be collected and disposed to the sewage system. Domestic solid waste handled in accordance with related regulation and disposed to nearest garbage container of the municipality. All of the other generated waste will be handled according to the national regulation "Turkish Water Pollution Control Regulation". The project does not have any point or fugitive emission and heating source emissions during operation other than an emergency diesel generator. The waste records will be checked.

Would the project involve or lead to:

P.9.4.1 |	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.4.3 |	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ NO ☒ NA
P.9.4.2 |	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES ☐ NO ☒ NA
P.9.4.3 |	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.5 |HAZARDOUS AND NON-HAZARDOUS WASTE

P.9.5.1 |	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☒ YES ☐ NO
P.9.5.3 |	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
P.9.5.5 |	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Waste oil from equipment will be collected properly in line with the relevant regulation and disposed via accredited abatement companies. Disposal methods during site visits will be done and waste oil disposal records will be checked. Monitoring parameter is added for this principle.		
Would the project involve or lead to:		
P.9.5.1 |	the generation and management of waste materials?	☒ YES ☐ POTENTIALLY ☐ NO
P.9.5.1 |	treatment, destruction, or disposal of waste material?	☒ YES ☐ NO ☐ NA
P.9.5.1 |	If answer to above question is “Yes”, does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☒ YES ☐ NO ☐ NA
P.9.5.3 |	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO ☐ NA
P.9.5.3 |	If answer to above question is "yes”, does project has measures in place to address health risks?	☐ YES ☒ NO ☐ NA
P.9.5.4 |	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
....		
P.9.6 |PESTICIDES & FERTILISERS		
P.9.6.1 |	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
P.9.6.5 |	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
P.9.6.6 |	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		

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Would the project involve or lead to:

P.9.6.1 |	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.4 |	If answer to question above is “yes” or “potentially”, does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
P.9.6.5 |	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.5 |	If answer to question above is “yes” or “potentially”, does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.7 |HARVESTING OF FORESTS

P.9.7.1 |	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO
P.9.7.1 |	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO
P.9.7.1 |	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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P.9.8 |FOOD SECURITY

P.9.8.1 |	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES ☒ NO

If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:		
P.9.8.1 |	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
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P.9.9 | ANIMAL WELFARE

P.9.9.1 |	Does the project involve any risks to animal welfare? Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☒ YES ☐ NO
P.9.9.2 |	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
P.9.9.4 |	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
The ornithological study states that the Project is not expected to have a negative impact on birds. No mitigation is needed for this indicator. However, site observations will be done to make sure the project does not negatively affect birds.		
Would the project involve or lead to:		
P.9.9.1 |	animal husbandry or harvesting of fish populations or other aquatic species?[40]	☐ YES ☐ NO ☒ NA
P.9.9.1 |	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.9.3 |	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☒ NO

[40] 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

		☒ NA
P.9.9.5 |	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
P.9.9.6 |	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
P.9.9.7 |	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
P.9.9.8 |	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
P.9.9.9 | P.9.9.10 |	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.10 |HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS

P.9.10.1 |	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO
P.9.10.2 |	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.9.10.1 |	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO

P.9.10.1 |	If answer to above question is “yes”, does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES ☐ NO ☒ NA
P.9.10.1 |	If answer to above question is “yes”, is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES ☐ NO ☒ N/A
P.9.10.2 |	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.2 |	If the answer to the above question is “yes”, will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA
P.9.10.3 |	If the answer to above question is “yes”, does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES ☐ No ☒ NA
P.9.10.4 |	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES ☐ No ☒ NA
P.9.10.5 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.11 |ENDANGERED SPECIES

P.9.11.1 |	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.9.11.2 |	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
P.9.11.2 |	If answer to the above question is “yes”, does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
P.9.11.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.12 |INVASIVE ALIEN SPECIES

P.9.12.1 |	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

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Would the project involve or lead to:

P.9.12.1 |	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.12.1 |	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES ☐ POTENTIALLY ☒ NO
P.9.12.2 |	risk of spreading alien species into areas in which they have not already been established?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

....

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	Ütopya Elektrik Üretim Sanayi ve Ticaret A.Ş.
Registration number with relevant authority	-
Street/P.O. Box	Altunizade Mahallesi. Kısıklı Cad. Sarkuysan Ak İş Merkezi, No:4 Kat:1 A-Blok, Altunizade Üsküdar / İSTANBUL
Building	Sarkuysan Ak İş Merkezi, No:4
City	İstanbul
State/Region	-
Postcode	34662
Country	Turkey
Telephone	+90 216 554 54 00
E-mail	esra.oz@fibaenerji.com
Website	-
Contact person	Esra Öz
Title	Business Development Assistant Specialist
Salutation	Ms.
Last name	Öz
Middle name	-
First name	Esra
Department	Business Development
Mobile	-
Direct tel.	-
Personal e-mail	esra.oz@fibaenerji.com

Organization name	GTE KARBON SÜRDÜRÜLEBİLİR ENERJİ EĞİTİM DANIŞMANLIK VE TİC. AŞ
Registration number with relevant authority	-
Street/P.O. Box	Mustafa Kemal Mah 12118. Cad. No:4
Building	C/42
City	Ankara
State/Region	-
Postcode	06510
Country	Turkey
Telephone	+90 312 514 63 63
E-mail	kemal.demirkol@gte.com.tr
Website	www.gte.com .tr
Contact person	Mehmet Kemal Demirkol
Title	Director
Salutation	Mr.
Last name	Demirkol
Middle name	Kemal
First name	Mehmet
Department	Management
Mobile	-
Direct tel.	+90 312 514 63 63
Personal e-mail	Kemal.demirkol@gte.com.tr

APPENDIX 3 - LUF ADDITIONAL INFORMATION

This section is not applicable.

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

There is no proposed design changes.

A4.2. Describe the impacts of design change on the following

a. Additionality

N/A

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

N/A

c. Compliance with the monitoring plan of the applied methodology

N/A

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan

N/A

e. Scale of the project activity

N/A

f. Stakeholder consultation

N/A

g. Sustainable development criteria

N/A

h. Safeguarding assessment

N/A

i. Compliance with applicable legislation

N/A

j. Only for LUF Projects: Transparent summary of all approved changes in Project Area, Eligible Area and accompanying changes in ex-ante emissions removals.

N/A

Revision History

Version	Date	Remarks
1.5	29 June 2023	Editorial changes to match V2.1 of the Safeguarding Principles Requirements
1.4	21 June 2023	Editorial changes to match V2.0 of the Safeguarding Principles Requirements
1.3	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on ‘gender sensitive’ requirements
1.0	10 July 2017	Initial adoption