TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v. 1.2**

RELATED SUPPORT

- **TEMPLATE GUIDE Key Project Information & Project Design Document v.1.2**

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Key Project Information
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KEY PROJECT INFORMATION

GS ID of Project	GS950
Title of Project	Kayaduzu Wind Power Plant, Turkey
Time of First Submission Date	29/10/2021
Date of Design Certification	11/12/2012
Version number of the PDD	16~~5~~
Completion date of version	13~~18~~/01~~09~~/2023~~2~~
Project Developer	Eksim Enerji A.Ş.
Project Representative	SEKANS ENERJİ LTD. ŞTİ.
Project Participants and any communities involved	-
Host Country (ies)	TURKEY
Activity Requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☐ Small Scale ☒ Large Scale
Other Requirements applied	-
Methodology (ies) applied and version number	ACM0002 version 20.0
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	Emission Reductions	69,213	VERs
SDG 7 Ensure access to affordable, reliable, sustainable and modern energy for all	MWh of renewable energy generated	111,670[1]	MWh
SGD 8 Decent Work and Economic Growth	Employee	17	Number of employees

[1] Please see the registered PDD.

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

Eksim Enerji A.Ş.built the Kayaduzu Wind Power Plant, Turkey (Kayaduzu WPP) with an installed capacity of 40.0 MW in Amasya Province of Turkey. As of 08/04/2021, the ownership of the project activity has been changed and the project has been transferred to Tokat Enerji A.Ş. from Merzifon Enerji A.Ş. The parent company of both companies are the same.[2] Then, as of 12/11/2021, the ownership of the project activity has been changed and the project has been transferred to Eksim Enerji A.Ş. from Tokat Enerji A.Ş. The parent company of both companies are the same.[3] The project involves 16 wind turbines, each having a capacity of 2.5 MW. The annual electricity production of the project is 111,670 MWh/year. Kayaduzu Wind Power Plant, Turkey is connected to the 154 kV Kayaduzu TM and the generated electricity will be supplied to Turkey's national electricity grid. The Project Proponent has been granted a 49-year generation licence by the Turkish Energy Market Regulatory Authority for the proposed Project under the provisions of Law No. 4628 governing the electricity market in the Republic of Turkey.

The purpose of the Project is to produce renewable electricity using wind as the power source and to contribute to Turkey's growing electricity demand through a sustainable and low carbon technology. The project will displace the same amount of electricity generated by the grid dominated with fossil fired power plants. The annual emission reduction estimated by the project is 69,213 tonnes of CO2. As the generation license has been revised for capacity extension, fourteen turbines were added to the project on 09/09/2017, 21/09/2017 and 27/09/2018. Additionally, the generation license of the project was revised on 03/03/2017. The installed capacity of the project has been raised to 82MWm/75MWe with the revision. Since the hub height of the new turbines would affect the aircraft radar, the new turbines were displaced by some of the installed turbines (their height is less than the new ones). The installed turbines with no T11-T16 were moved to T19-T24. And thus, new turbine numbers' are T11, 12, 13, 14, 15, 16, 17,18, 25, 26, 27, 28, 29 and 30. The newly added turbines type is N117/3000. As the registered capacity (40MWm/39MWe) of the project is considered, the electricity generation and the emission reduction of the added units are ignored. The total net electricity generation from the Project Activity is be monitored along with the generation from the increased capacity to apply the method presented in Section B.6.3 of the PDD.

The project will produce positive environmental and economic benefits through the following aspects:

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

The project was operational on 16/03/2012 and registered on 11/12/2012 under the Gold Standard Registry with the registration number GS950.

A.1.1. Eligibility of the project under Gold Standard

[2] The revised Generation License has been provided to the VVB.
[3] The trade registry has been provided to the VVB.

The project activity meets the eligibility criteria according to section 3.1.1 of GS4GG Principles & Requirements document as below.

- The project applies methodology ACM0002. Version 20.0, which is an approved methodology under Gold Standard.
- The project type is wind and an eligible project type as per the 1.1. Eligible Project Types & Scope under Renewable Energy Activity Requirements.

  (a) Project shall generate and deliver energy services (e.g., mechanical work/electricity/heat) from non-fossil and renewable energy sources

  (b) Project shall comprise of renewable energy generation units, such as photovoltaic, tidal/wave, wind, hydro, geothermal, waste to energy and renewable biomass.
- The project activity results in displacement of electricity from thermal power stations while contributing to sustainable development of Turkey. Hence, the project contributes to the Gold Standard Vision and Mission.
- Wind is an approved project type.
- Project is not included in any other voluntary or compliance standards programme. The existing 40 MW capacity is not included in IREC.[4]

General Eligibility Criteria

- Type of project: Wind
- Location of project: The project is located in Tokat province, Turkey. Therefore, the project is eligible.
- Project Area, Boundary and Scale: The registered project activity is 40.0 MW as large scale.

The project activity meets additional requirements:

[4] Signed declaration by the PO is available to the VVB.

- Principle 1- Contribution to Climate Security & Sustainable Development as contributing to SDG 7, 8 and 13.
- Principle 2 – Safeguarding Principles (Please see Appendix 1)
- Principle 3 – Stakeholder Inclusivity as Stakeholder Consultation Processes was already implemented and grievance mechanism is already in place.
- Principle 4 – Demonstration of Real Outcomes as the Tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period", Version 03.0.1 has already been applied.
- Principle 5 – Financial Additionality & Ongoing Financial Need (Please see section B.5.2)

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

Eksim Enerji A.Ş.

A.2 Location of project

Kayadüzü village, Amasya Provience, Black Sea region, Turkey.

Table 2 - Turbine Coordinates[5]

Turbine #	E	N
1	710791,000	4535249,000
2	711085,000	4535297,000
3	711307,000	4535351,000
4	711506,000	4535280,000
5	711780,000	4535167,000
6	711894,000	4534855,000

[5] The Generation License

7	712294,000	4534886,000
8	712362,000	4534481,000
9	712557,000	4534424,000
10	712740,000	4534326,000
19	715975,000	4533528,000
20	716176,000	4533486,000
21	716387,000	4533480,000
22	716590,000	4533458,000
23	716760,000	4533334,000
24	716949,000	4533258,000

Figure 1. Project Location on Turkey Map Site Layout

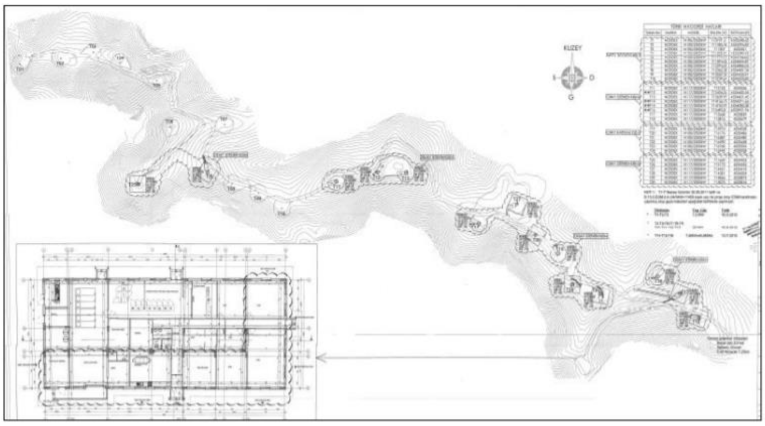

Figure 2. Site Layout

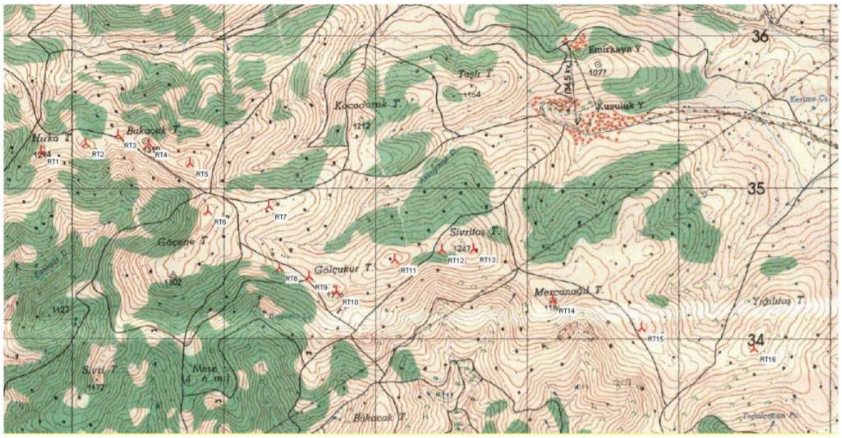

Figure 3. The locations of the turbines in the project area

A.3 Technologies and/or measures

The Project Scenario entails the installation of sixteen Nordex N100 wind turbines, each having a capacity of 2.5 MWs. The turbines are 3 bladed with a horizontal axis. The turbine blades have the ability to change angles according to wind direction. The towers will have a hub height of 80 m. The diameter of the blades is 100m. The turbines are connected to the substation at the natural gas fired power plant operated by the project owner, then to the grid via 154 kV, 8 km electricity transmission line. The metering has been done at substation before electricity is fed into the grid.

The amount of electricity generated by the project is not influenced by factors outside the project boundary such as other power plants or demand for electricity. Rather, the governing factor is the wind speed at the project site. Regarding the actual operation of the project activity, the first temporary acceptance protocol signed by the Ministry of Energy and Natural Resources is dated 16/03/2012 for the commissioning of the 3 turbines. The second temporary acceptance protocol with the Ministry was signed on 15/06/2012 for the next ten turbines. The third temporary acceptance protocol with the Ministry was signed on 13/07/2012 for the remaining three turbines. Please see below the technical specifications of the installed turbines.

Table 3 - Technical specifications of the installed turbines

Model of Turbine	Parameter	Unit	Value
Nordex N100 2.5 MW	Rotor Diameter	m	100
	Rater Power	kW	2,500
	Rated Wind Speed	m/s	14,0-20,0
	Hub Height	m	80
	Operating wind	m/s	4,0-20,0

A.4 Scale of the project

Large scale

A.5 Funding sources of project

Private funding and funding from bank. The project activity does not have any public funding or Official Development Assistance (ODA) funding.

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

B.1. Reference of approved methodology (ies)

Project type: Type I – Renewable Energy Projects

Category: D – Electricity Generation for a System

Methodology: ACM0002: "Consolidated baseline methodology grid-connected electricity generation from renewable sources", Version 20.0

Sectoral Scope: 01 Energy industries (renewable - / non-renewable sources)

ACM0002 refers to:

- "Tool to calculate the emission factor for an electricity system", Version 07.0,
- "Tool for the demonstration and assessment of additionality", Version 07.0.0,
- "Combined tool to identify the baseline scenario and demonstrate additionality", Version 07.0,
- "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion", Version 03.0.
- Tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period", Version 03.0.1

B.2. Applicability of methodology (ies)

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

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

The choice of methodology ACM0002 Version 20.0 is justified as the proposed project activity meets relevant applicability criteria:

Table 4 - Applicability of ACM0002

Applicability Criteria	**Justification**
This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s)	The project is installation of a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity.
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	The project is not a hydropower plant.

change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (3), is greater than 4 W/m2; or (c) The project activity results in new single or multiple reservoirs and the powerdensity, calculated using equation (3), is greater than 4 W/m2.	
If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	The project has only renewable component with an installed capacity equal to 40.0 MWe.
Combined heat and power (co-generation) systems are not eligible under this category.	The project is not a combined heat and power system.
In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units	The project is not an additional to an existing renewable power generation facility.
In the case of retrofit, rehabilitation or replacement, to qualify as a small-scale project, the total output of the retrofitted, rehabilitated or replacement power plant/unit shall not exceed the limit of 15 MW.	The project is not a retrofit, rehabilitation or replacement of an existing facility and is a newly built wind power plant.

In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid then thebaseline for the electricity component shall be in accordance with procedure prescribedunder this methodology. If the recovered methane is used for heat generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energyproduction with or without electricity" shall be explored.	The project is not a landfill gas, waste gas, wastewater treatment and agro-industries project.

B.3. Project boundary

The project boundary encompasses the physical, geographical site of the renewable generation source. The wind power plant with all installation is the project boundary.

As the electricity generated by the project displaces the electricity generated by national grid, the baseline boundary is defined as the national grid. This includes the project site and all power plants connected physically to the national grid and excludes the off-grid power plants. Please see the diagram below:

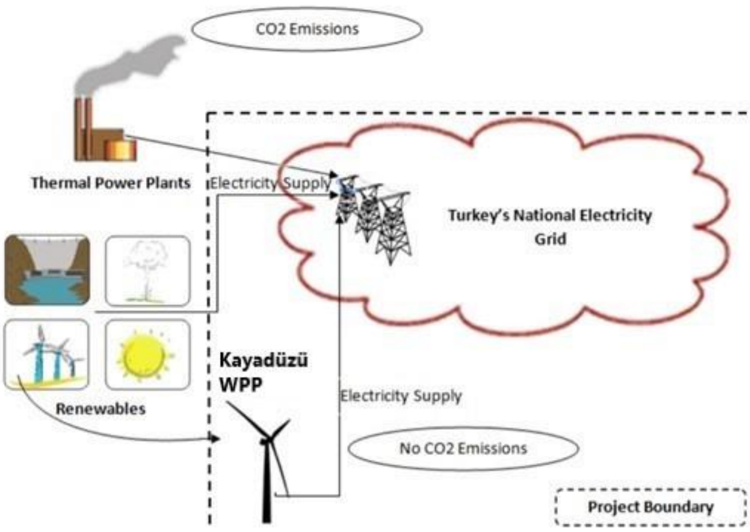

Figure 4. Project Boundary

The greenhouse gases and emission sources included in or excluded from the Project boundary are compiled as below:

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity.	CO_2	Yes	Main source. The dominant emissions from power plants are in the form of CO_2, therefore CO_2 emissions from fossil fuel fired power plants connected to the grid will be accounted for in baseline calculations.
		CH_4	No	Minor
		N_2O	No	Minor

Project scenario	Emissions as a result of project activity.	CO_2	No	Not applicable

B.4. Establishment and description of baseline scenario

According to ACM0002 (Version 20), if the project activity is the installation of a new grid connected renewable power plant, the baseline scenario is 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. In line with the tool, "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period", the development of the Turkish energy mix and thus the baseline scenario have been reanalyzed as it may been seen below.

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

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.

Step 1.2: Assess the impact of circumstances

Through Figure 3, the development of Turkey's installed capacity by primary energy resources between the years, 2009-2019, the electricity generation has mainly been done by fossil fuel fired power plants in Turkey. Total Installed electricity generation capacity in Turkey has reached 91,267 megawatts (MW) as of 2019. As having a share of 8.32%, wind power projects have an installed capacity of 7,591.2MW.

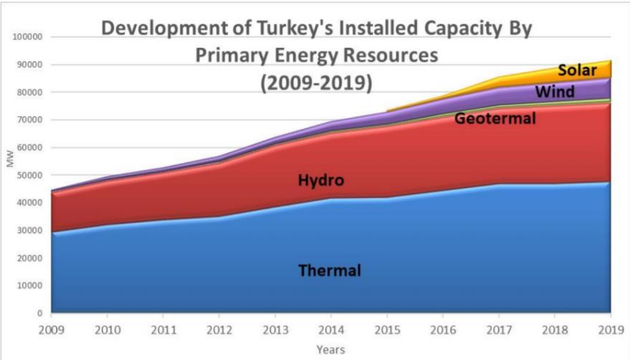

Figure 5. The development of Turkey's installed capacity by primary energy resources, 2009-2019

In reference to 5-year capacity projection[6], it is clear that fossil fuels will remain the main sources for electricity generation through until 2024. Fossil fuels will continue to dominate the market. Hydro will account for 15% of the mix whereas all non-hydro renewable combined (geothermal/ biomass/ solar/ wind) will only account for 11% of all electricity generation capacity. This projection is consistent with continuing fossil fuel dependent characteristics of Turkish electricity sector.

[6] https://webapi.teias.gov.tr/file/abeac87d-3abc-4532-9cf4-d6f3a9d34c17?download

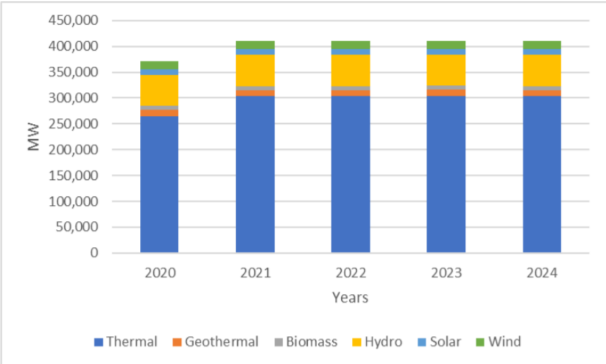

Figure 6. 5-year capacity projection

The current baseline has been updated with the latest data and projections available by the official bodies. It's clear that the baseline scenario is still valid for the second crediting period in accordance with the tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period".

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

This sub-step is not applicable since the baseline scenario identified at the validation of the project activity was not the continuation of use of the current equipment(s) without any investment.

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

Sections B6 and B7 have been updated.

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

Step 2.1: Update the current baseline
The current baseline emissions for the subsequent crediting period have been updated.

Step 2.2: Update the data and parameters

Sections B6 and B7 have been updated.

B.5. Demonstration of additionality

Referred by the Baseline Methodology, the "Tool for the Demonstration and Assessment of Additionality (Version 07.0.0)" outlines a step by step approach for the assessment of additionality or in other words the emission reductions that would have occurred in the absence of the project. The additionality has been evaluated in first validation and that the information is repeated in this PDD and no new additionality assessment is done.

Step 2. Investment analysis

Sub-step 2a: Appropriate analysis method

With the help of the investment analysis it shall be demonstrated that the proposed project activity is not economically or financially feasible without the revenue from the sale of VERs. Therefore, the benchmark analysis shall be applied, as there is no alternative project activity for a comparison of the attractiveness of an investment.

Sub-step 2b: Option III: Benchmark analysis

As a common means to evaluate the attractiveness of investment projects and compare them with possible alternatives, the IRR (Internal Rate of Return) shall be used.

According to the Tool, benchmark can be derived from 'Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds'. As a banker view, according to Worldbank loan appraisal document22, threshold equity IRR for wind power investments (i.e. required returns of equity for wind power investors) in Turkey is 15%.

Sub-step 2c: Calculation and comparison of the IRR

In the 11th paragraph of the 'Guidance on the Assessment of Investment Analysis'23, it is stated that: 'Required/expected returns on equity are appropriate benchmarks for equity IRR'. Since, benchmark identified in the Sub-step 2b is required/expected returns on equity, equity IRR (after tax) of the project activity shall be calculated for comparison.

Parameters used for investment analysis of the project activity are given below:

Table 5- Parameters used in Financial Analysis of Project Activity

Parameter	Amount	Unit	Reference
Installed Power	40	MW	Licence issued by Energy Market Regulatory Authority (EMRA)
Annual Generation	111,670	MWh	Energy Assessment Report by Lahmayer dated 20.10.2010.
Investment Cost	40,341,288	EUR	a) Electro Mechanical Purhase Agreement with Nordex dated 06.10.2010 b) Proposal of Güngör Elektrik for Electrical works dated 27.09.2010 c) Proposal of Sena İnşaat dated 18.10.2010. d) Calculation, For licencing, Development and Operation Cost During Construction
Operation Cost	1,417,9344	EUR	a) Salaries for 5 staff and security service b) Supplier Agreement with Nordex c) System usage fee and fee to Forestry Directorate
Electricity Sale Price	55	EUR/MWh	Renewable Energy Law
Corporate Tax Rate	20	percent	Tax Regulation of Turkey
Transmission Loss Factor	2.5	percent	TEIAS Statistics
EUR/TL Exchange Rate	1.9596	N/A	CBRT Purchase Rate on Investment Decision

Depreciation Periods: Turbines Electrical Equipments	10 20	yrs yrs	Tax Regulation of Turkey

The aftertax equity IRR of Kayaduzu WPP is calculated on the basis of expected cash flows (investment, operating costs and revenues from electricity sale), as used in the financial analysis for the feasibility assessment of the project. Finance lease was utilized for implementation of the project. The parameters and values used for the IRR calculation are available to DOE during validation. The resulting IRR for 20 years is 9.52%.

Benchmark does clearly exceed the resulting equity IRR, thus rendering the project activity economically unattractive.

Sub-step 2d: Sensitivity analysis

The most effective parameters for sensitivity analysis are electricity price, energy yield, and investment cost. For electricity price; according to 2010 Electricity Market Report of EMRA, average of prices in spot market is 120 TL/MWh (average of 122 TL/MWh for SGÖF and 118 TL/MWh for SMF). EUR/TL Exchange rate average for 2010 is 1.994.So EUR converted price which is 60.2 EUR/MWh in spot market for 2010 is not exceeding 10% more of feed-in-tariff which is 60.5 EUR/MWh. Thus 10% range is applied for electricity price in sensitivity analysis.

As investment cost used in investment analysis is from contracts which are fixed, costs cannot differ too much. Thus, 10% range is applied for the sensitivity analysis is considered to be appropriate.

For energy yield, already p75 figure stated in the energy yield report is used in investment analysis. p75 figure is the probability of having that annual energy yield amount is 75%. Thus, a range 10% from this figure already covers the possibility of utmost energy yield expectation from the project activity and having more energy yield above this range is unlikely.

Operating cost parameter is also are varied with +/- 10%. The worst, base and best-case results for each parameter variation are given below, in Table 6. The sensitivity analysis confirms that the proposed project activity is unlikely to be economically attractive without the revenues from VERs as even the maximum IRR result for the best case scenario (13.37%) is below the benchmark, which is 15%.

Table 6- Equity IRRs (after tax) according to different parameters (EP is 55 €/MWh)

Parameter	Electricity Price			Investment Cost			Energy Yield			Operating Cost		
Variance	-10%	0%	10%	-10%	0%	10%	-10%	0%	10%	-10%	0%	10%
IRRs	5.57%	9.52 %	13.37 %	13.05 %	9.52 %	6.56 %	5.57%	9.52%	13.37 %	10.44 %	9.52%	8.60 %

Step 2 Conclusions:

Based on the above provided information, it can be stated the benchmark of 15% (World Bank Benchmark) does clearly exceed the resulting equity IRRs, thus rendering the project activity economically unattractive.

Common practice analysis

The common practice analysis was done first validation and that the information is not repeated in this PDD and no new common practice analysis has been done.

Conclusion

Ass the project activity satisfied all the criteria of "Tool for the demonstration and assessment of additionality". Therefore, the project is still additional.

B.5.1 Prior Consideration

The project activity is under regular cycle and no approved design change has been conducted.

B.5.2 Ongoing Financial Need

Previously issued VERs have given support to the ongoing financial sustainability of the project. The Project Owner had difficulties to commercialize the VERs. Both low demand for VERs and a sharp decrease in prices caused Project Owner not to benefit from carbon revenue as expected. Despite the fact that the sales prices were so lower than the expected ones at the investment time, sold VERs provided contribution of the ongoing financial sustainability of the project. VER revenue from the project is mostly used for the operation costs of the project activity to be covered.[7]

[7] The signed declaration of the PO is available to the VVB.

During the 1st CP the below issuances have been realized:

No	Monitoring Period	Amount of Issued GS VERs
1st MP	01/07/2012 – 30/04/2014	134,305
2nd MP	27/08/2016-30/06/2019	192,477

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

Sustainable Development Goals Targeted	**Most relevant SDG Target**	**SDG Impact** **Indicator (Proposed or SDG Indicator)**
13 Climate Action	13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Emission Reductions
7 Affordable and Clean Energy	7.2. By 2030, increase substantially the share of renewable energy in the global energy mix	MWh of renewable energy generated
8 Decent Work and Economic Growth	8.5. By 2030, achieve full and productive employment and decent work for all women and men 8.8. Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in	Employees

	particular women migrants, and those in precarious employment

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

- **Goal 7 Affordable and Clean Energy**

The project produces electricity from renewable energy sources using wind as the power source and to contribute to Turkey's growing electricity demand through a sustainable and low carbon technology. The project displaces the same amount of electricity generated by the grid dominated with fossil fired power plants.

The project is expected to generate 111,670 MWh annually. The project contributes to the following target 7.2. and following indicator 7.2.1.

- **Goal 8 Decent Work and Economic Growth**

During construction and operational period, the project has created employment opportunities for the local community. The project contributes the economic development of the region by providing sustainable energy resources.

Considering the operational phase, 17 personnel are working permanently. The target will be monitored by the number of full-time employees with the SGK records during the verification process. Due to job requirements and demographics of the project area, employment of woman and persons with disabilities has not been possible, yet.
The positions at the wind projects require skilled workers, which will be achieved by adequate training. Attendance records or training certificates will be provided during the verification process. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe work environments.

The project contributes to the following targets 8.5.; 8.8.and following indicators 8.5.2.; 8.8.1

- **Goal 13 Climate Action**

The annual emission reduction estimated by the project is 69,213 tonnes of CO2eq, approximately. While this amount of emissions are mitigated, technology transfer is also realized as benefitting from wind energy.

The project contributes to improve the environmental situation in the region and in the country as avoiding fossil fuel-based electricity will enhance the air quality and help to reduce the adverse effects on the climate. Through renewable technologies and wind-based electricity sustainable and climate friendly development is promoted.

The project contributes to the following target 13.3. and following indicator 13.3.2.

For the calculation of the emission reductions of the project activity, "Tool to calculate the emission factor of an electricity system" Version 07.0 and the emission factor published by T.C. Ministry of Energy and Natural Resources are taken into consideration.

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{grid, CM, y}$
Unit	tCO2/MWh
Description	Emission factor of the Turkish grid determined ex-ante. It has been published by the Ministry of Energy for 2018.
Source of data	Ministry of Energy. Please see: https://enerjiapi.etkb.gov.tr/Media/Dizin/ETKB/Duyurular//0c6b62ea-bf2f-4fea-b9b3-28bc6f48ddf2_Bilgi_Formu_-_Web_Sitesi.pdf

Value(s) applied	0.6198
Choice of data or Measurement methods and procedures	Official data
Purpose of data	Calculation of the baseline emissions-to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

B.6.3 Ex ante estimation of SDG Impact

Calculation of the Operating Margin Emission Factor

It's been published as 0,6993 tCO_2/MWh by the Ministry of Energy[8].

Calculation of the Build Margin Emission Factor
It's been published as 0,3812 tCO_2/MWh by the Ministry of Energy[9].

[8] Please see https://enerjiapi.etkb.gov.tr/Media/Dizin/ETKB/Duyurular//0c6b62ea-bf2f-4fea-b9b3-28bc6f48ddf2_Bilgi_Formu_-_Web_Sitesi.pdf

[9] Please see https://enerjiapi.etkb.gov.tr/Media/Dizin/ETKB/Duyurular//0c6b62ea-bf2f-4fea-b9b3-28bc6f48ddf2_Bilgi_Formu_-_Web_Sitesi.pdf

Calculating of the Combined Margin Emission Factor
It's been published as 0,6198 tCO2/MWh by the Ministry of Energy[10].

Baseline Emissions

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

$$BEy = EG_{PJ,y} \times EF_{grid,y} \quad \text{Equation (1)}$$

where:

BEy = Baseline Emissions in year y (tCO2e)

EGPJ,y = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)

EFgrid,y = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system"(t CO2/MWh)

= 111,670 x 0.6198

= 69,213 tCO2/MWh

The net electricity is measured continuously by a power meter at the grid interface and recorded monthly. EPIAS records are the source of the exact electricity generation of the project and the imports from the grid. The quantity of net electricity delivered to

[10] Please see https://enerjiapi.etkb.gov.tr/Media/Dizin/ETKB/Duyurular//0c6b62ea-bf2f-4fea-b9b3-28bc6f48ddf2_Bilgi_Formu_-_Web_Sitesi.pdf

the grid is cross checked with the meter reading records (OSF forms-OSOS) which are provided to the company by TEIAS.

Net electricity generation supplied by the project plant to the grid [MWh]	=	Electricity supplied to the grid [MWh]	-	Electricity consumption from the grid [MWh]

Since the registered capacity of the project activity is different form the installed capacity due to design change, the baseline emissions and thus emissions reductions will be based on the 'adjusted net electricity supplied to the grid'. This value will be calculated as below:

Adjusted net electricity supplied to the grid = $EG_{PJ,y}$ - Generation of Added Capacity Taken From the SCADA System[11].

[11]This calculation was approved during the 2nd Verification of the Project Activity.

For the aim of reaching the actual values derived from the registered capacity, the generation of the added turbines taken from SCADA system of the project activity will be subtracted from the total generated amount which is monitored through the EPIAS records. After the substruction, the remaining amount (be adjusted net electricity supplied to the grid) would represent the generation of the registered capacity.

Project Emissions

Since the project activity is a wind project,

$PE_y=0$.

Leakage

In accordance with the ACM0002. (version 20), leakage is taken as zero since the project is a new power plant is taken as zero,

$LE_y= 0$.

Emission Reductions

$ER_y = BE_y-PE_y-LE_y$ Equation (2)

ER_y = 69,213 tCO_2/MWh

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

Net Benefit to SDG 7

Year	Baseline estimate	Project estimate	Net benefit
01.07.2019-31.12.2019	0	56,293	56,293
2020	0	111,670	111,670
2021	0	111,670	111,670
2022	0	111,670	111,670

2023	0	111,670	111,670
2024	0	111,670	111,670
2025	0	111,670	111,670
01.01.2026-30.06.2026	0	55,376	55,376
Total	**0**	**781,689**	**781,689**
Total number of crediting years	**7**		
Annual average over the crediting period	**111,670**	**0**	**111,670**

Net Benefit to SDG 13

Year	Baseline estimate	Project estimate	Net benefit
01.07.2019-31.12.2019	34,890	0	34,890
2020	69,213	0	69,213
2021	69,213	0	69,213
2022	69,213	0	69,213
2023	69,213	0	69,213
2024	69,213	0	69,213
2025	69,213	0	69,213
01.01.2026-30.06.2026	34,322	0	34,322
Total	**484,490**	**0**	**484,490**
Total number of crediting years	**7**		
Annual average over the crediting period	**69,213**	**0**	**69,213**

Net Benefit to SDG 8

If the project hadn't been realized, there wouldn’t be employment opportunity for employees. Therefore, achieved impact for this SDG is 17. 8 of the employees are local.

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 13

Data / Parameter	Er_y (SDGI 13.3.2)
Unit	tCO2/y
Description	Emission reductions by the project activity in year y (t CO2/yr) In accordance with ACM0002, baseline emissions include CO2 from electricity generation in powerplants that are displaced due to the project activity. And baseline emissions correspond to emission reductions and are calculated as the net electricity generated by the project activity, multiplied with combined margin CO2 emission factor for grid connected power generation in year y.
Source of data	Both measured and calculated Emission reductions will be calculated as considering the EPİAŞ records for the net electricity generated and the emission factor for the grid, 0.6198 tCO2/MWh, published by the Ministry of Energy.
Value(s) applied	69,213
Measurement methods and procedures	Please check sections B.6.1-B.6.3 and B.7.3 for more detailed description of the monitoring plan.
Monitoring frequency	Once for each year of operation

QA/QC procedures	Please check section B.7.3 for the monitoring plan.
Purpose of data	Calculation of combined margin CO2 emission factor and thus the baseline emissions-to demonstrate contribution to SDG Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
Additional comment	-

SDG 7

Data / Parameter	$EG_{PJ, grid, y}$, (SDGI 7.2.1)
Unit	MWh/yr
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y
Source of data	Direct measurement[12]
Value(s) applied	The annual electricity fed to the grid is estimated as 111,670 MWh.
Measurement methods and procedures	The net electricity is measured continuously by a power meter at the grid interface and recorded monthly. EPİAŞ records are the source of the exact electricity generation of the project and the imports from the grid. The quantity of net electricity delivered to the grid is cross checked with the meter reading records (OSF forms-OSOS) which are provided to the company by TEİAŞ.

[12] EPIAS records

	Net electricity generation supplied by the project plant to the grid [MWh] = Electricity supplied to the grid [MWh] - Electricity consumption from the grid [MWh]
Monitoring frequency	Continuous monitoring, hourly measurement and at least monthly recording meters information: TR1[13]

	Main Meter	Back-up Meter
Manufacturer	ITRON	ITRON
Serial Number	3574753	3574754
Date of Installation	02/08/2017	02/08/2017
Latest Test Date of the Meters	13/08/2018	13/08/2018
Accuracy of meters	0.2S class	0.2S class

TR 2

	Main Meter	Back-up Meter
Manufacturer	ITRON	ITRON
Serial Number	3574745	3574746
Date of Installation	28/07/2017	28/07/2017
Latest Test Date of the Meters	13/08/2018	13/08/2018
Accuracy of meters	0.2S class	0.2S class

QA/QC procedures	• Back-up meters are used for crosschecking the accuracy and all meters are periodically tested. • The metering devices are in line with the technical requirements which are set out by the Communiqué for Metering Devices to be used in the Electricity Market, which describes the minimum accuracy requirement the metering devices have to fulfill, which are categorized according to the installed

[13] The meters were changed on 02/08/2017.

	capacity. The periodical test or maintenance is under the responsibility of TEİAŞ. Since TEİAŞ meters are sealed by TEİAŞ, the project proponent cannot intervene with the devices. • The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. EPİAŞ records are crosschecked with the meter reading protocols (OSOS-OSF forms) • In addition to metering devices, every single wind turbine generation is monitored, and the data will be stored through a SCADA system.
Purpose of data	Calculation of emission reductions SDG 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix
Additional comment	-

SDG 8

Data / Parameter	Number of employment (SDGI 8.5.2)
Unit	Number
Description	Number of people permanently working for the operation of the project
Source of data	Social Security System (SGK)
Value(s) applied	17 personnel are working for the project activity: • 1 Operation Manager • 4 O&M Technicians • 5 Control Operators • 1 Administrative Personnel • 5 Security Staff (Subcontractor-Akdeniz Security) • 1 O&M Technician (Nordex) 8 personnel are from local region.
Measurement methods and procedures	Social Security System (SGK) records

Monitoring frequency	Once for each monitoring period
QA/QC procedures	SGK records of employees are provided during each monitoring period.
Purpose of data	SDG 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
Additional comment	-

Data / Parameter	a)Number of trainings (SDGI 8.8.1) b)Fair wage, working hours and occupational injuries
Unit	a)Number b)N/A
Description	a)Number of training sessions held b)The social security conditions provided to the employees
Source of data	a)Attendance records or training certificates b)Social Security Records
Value(s) applied	a)Health and Safety and technical trainings have been provided to the employees. b) Social Security Records
Measurement methods and procedures	N/A
Monitoring frequency	Once for each year of operation
QA/QC procedures	N/A
Purpose of data	Monitoring the trainings to justify contribution to SDG 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
Additional comment	-

B.7.2 Sampling plan

N/A

B.7.3 Other elements of monitoring plan

The Project Owner will be responsible for the overall management of the monitoring procedures including recording, data collection and store. The consultant will calculate emission reductions based on these monitored data and prepare monitoring report.

According to the methodology applied, the electricity supplied to the national grid by the project and the electricity consumed by the project activity shall be monitored. The net electricity is the difference of the electricity supplied and consumed by the project and shall be taken into account for emission reduction calculations.

Four power meters are installed at the grid interface of the project. Two are the main meters and the others are back-up meters of the main meters for cross-checking. All meters are jointly inspected and sealed in order to be protected from interference by any of the parties.

The capacity of the transmission line connected is 154 kVA, the accuracy class for main power meters have been defined in the Communiqué for Power Meters as 0.2S class. The back-up meters have the same accuracy class of 0.2S. The calibration will be implemented in accordance with the related standard procedures (IEC-EN 62053-22 and 62053-23) by either Turkish Electricity Transmission Corporation (TEIAS) or the provider company in the name of TEIAS. The meters are calibrated every two years. The latest calibration was made on 13/08/2018.

TEİAŞ is performing remote reading of the meters and monthly power meter readings are the basis for monitoring net electricity fed into the grid. EPİAŞ records will used as the source of net generated electricity value and meter reading forms or OSF forms issued by TEİAŞ will be used for the crosscheck.

The website of EPİAŞ (https://cas.epias.com.tr/cas/login) is accessible to Project owner with their unique user ID and password. Once accessed, the Project owner is able to call electricity generation and consumption reports of their own projects. The same reports are used by the Project owner for invoicing TEİAŞ. The electricity generation data is reported monthly basis.

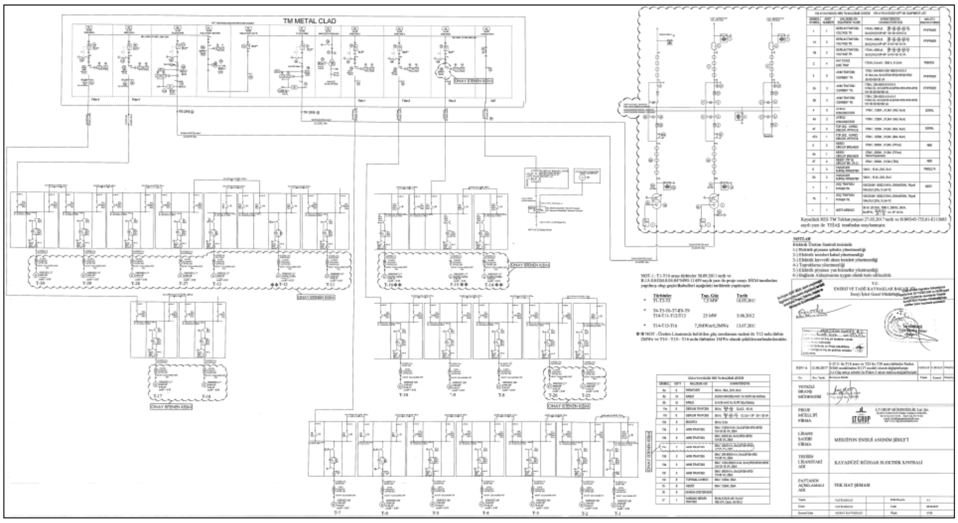

Figure 7. Single line diagram of the project activity

All data collected as part of monitoring will be archived electronically by the project owner and be kept at least for 2 years after the end of the last crediting period.

Considering the Sustainable Development Matrix Indicators stated in the first crediting period has been simplified in section B.7.1. The parameters not stated to be monitored separately during the second crediting period may be seen below:

The Parameter Not To Be Monitored

No	Indicator	Explanation
1	Air Quality	Dust emissions have been reduced by watering the roads frequently.
2	Water quality and quantity (Cesspool discharge)	Wastewater produced by workers during construction and operation has not been released to the environment but collected in an impermeable septic tank, which was constructed on the site. Later they periodically transferred to the wastewater treatment plant of Merzifon Municipality by sewage truck.
3	Quality of employment	All staff had trainings on Occupational Health and Safety issue.
4	Quantitative employment	Project participant gave priority to employees from local region.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

06/10/2010

C.1.2 Expected operational lifetime of project

20 years

C.2. Crediting period of project

C.2.1 Start date of crediting period

Start date of the first crediting period: 01/07/2012

End date of the first crediting period: 30/06/2019

Start date of the second crediting period: 01/07/2019

End date of the second crediting period: 30/06/2026

C.2.2 Total length of crediting period

7 years, renewed once

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

Data / Parameter	Biodiversity (Principle 4.3.10)
Unit	N/A
Description	Impact on bird/bat carcasses and nests
Source of data	Monitoring of Project Participant's appointed personnel
Value(s) applied	There are no bird/bat carcasses and nests Site personnel appointed by the Project Owner monitors

	bird/bat carcasses and nests in site. In case of any case, he reports to the management in his monthly reports.~~Site personnel appointed by the Project Owner monitors bird/bat carcasses and nests in site. In case of any case, he would report to the management.~~
Measurement methods and procedures	Bird/bat carcasses and nests are monitored.
Monitoring frequency	Monthly reporting Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.10: High Conservation Value Areas and Critical Habitats
Additional comment	

Data / Parameter	Hazardous and Non-hazardous Waste (Waste Oil)
Unit	N/A
Description	The waste oil generated during the operation of the power plant will be disposed/managed in accordance with the applicable law and regulations
Source of data	Through visual inspection or through evidence of disposal
Value(s) applied	N/A
Measurement methods and procedures	N/A
Monitoring frequency	Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.5: Hazardous and Non-hazardous Waste
Additional comment	

Data / Parameter	Noise Pollution
Unit	N/A
Description	The target is to hold the noise level within the limits in accordance with the applicable law and regulations
Source of data	Interviews with local residents about noise pollution
Value(s) applied	N/A
Measurement methods and procedures	N/A
Monitoring frequency	Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.4 (Release of pollutants)
Additional comment	

No	Indicator	Explanation
1	Air Quality	Since the project is a wind project and its contribution to air quality is already monitored under SDG 7 and SDG13, the calculation of estimated CO and NMVOC emission reductions by project activity is not preferred to be continued. During the latest MP of the 1st CP, the following reductions have been occurred: NMVOC =11.7 tons; CO=46.1 tons
2	Water quality and quantity	Domestic wastewater during operation is collected in the leakage-proof septic tank and periodically transferred by municipality. During the 1st CP, wastewater disposal invoices were provided to the VVBs.

3	Balance of Payments	To monitor the amount of payment for natural gas to be imported for electricity generation is not convenient.

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 implementation as outlined in the Gender Policy?	The Project provide equal opportunity for women and men to contribute both in volunteer and working positions. The project owner takes into account participation by both men and women. The access of women or men, as the case may be, to Project participation and benefits is not limited.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. Turkey signed the convention of International Labour Organization. The related articles are 100 and 111. The project owner respects Article 5/8425 of Labour Law, which states no discrimination based on gender, race, religion, sexual orientation or any other basis is allowed.

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

E.1 Summary of stakeholder mitigation measures

Stakeholders were invited to the meeting, in Kayaduzu Town as the closest place to the project location, held on September 21st, 2010 through different means including:

1- E-mail correspondence.
2- Newspaper advertisements.

During the meeting, to introduce project to the local people and to give details about how this project will impact their lives, a presentation from the carbon asset development consultant firm was given. The information given in presentations was based on the non-technical summary of the project. The presentation was addressing the issues about project specifications and how the project might have some environmental effects, how these issues will be mitigated by the investor and also climate change and how the project will help the fight against climate change.

It may be generally stated that most of the attendants of stakeholder meeting were satisfied with the realization of the project due to clean electricity generation. There were concerns about the risk of bird migrating. They learned that the area of the project is neither on the route of migrating birds nor close to wetlands. Some people asked for help about the unemployment problem in their village. The project representative said that the project will provide job opportunities to the local people during the construction and operation of the plant.

Generally, the stakeholders were pleasant about the project. Since they have informed regarding the project at the first stakeholder consultation process, they have no negative comments on the project.

From the date of the project activity started, there have not been any negative comments from the stakeholders during the period of construction and operation phases.

Although no negative comments have been received during the stakeholders' process, Project developer is aware of the importance of the project for the region and wants to further contribute to the social and sustainable development of the region. As an outcome of the close communication and relation with local community, the project owner implemented several measures and provided beneficial contributions to the region.

Regarding the renewable crediting period, an online meeting with DOE was made on 22/04/2021. During the 1st Crediting Period, two monitoring periods have been verified and required site visits by the VVB were realized. Local stakeholders were interviewed and consulted during the whole project cycle. The contact information of the plant responsible exists at the Mukhtar, the project owner and local community are always in touch. The project owner regularly checks with the Mukhtar if any complaint or a request exists. Signed letters by the Mukhtars have been provided as declaring that the related information has been available to the villagers. Any complaint or need from the local community could directly be received by the project owner and appropriate contributions or improvements are made to the local community. Therefore, no complimentary consultation has been conducted with stakeholders regarding CP renewal.

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)	The contact information of the plant responsible exist at the Mukhtar, the project owner and local community are always in touch. The grievance logbook exists at Mukhtar of Kayadüzü village.The project owner regularly checks with the Mukhtar if any complaint or a request exists. Signed letter by the Mukhtar

	has been provided as declaring that the related information has been available to the villagers. Any complaint or need from the local community could directly be received by the project owner and appropriate contributions or improvements are made to the local community. Contact information of the appointed personnel (Emre Avcı): Phone:+90 554 589 39 25 E-mail: emre.avci@iltekenerji.com.tr
GS Contact (mandatory)	help@goldstandard.org
Other	

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form.

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in	Yes	1. Turkey is a party to European Convention on Human Rights since 18.May. 1954.[14] 2. The project owner respects internationally proclaimed human rights including dignity, cultural property and	Not required

[14]Please See Official Website of Ministry of Foreign Affairs of Turkey: http://www.mfa.gov.tr/the-european-convention-on-human-rights.en.mfa

the Universal Declaration of Human Rights 2. The Project shall not discriminate with regards to participation and inclusion		uniqueness of indigenous people. The project is not complicit in Human Rights abuses.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women 2. Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work 3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks	Yes	1. a. No, the project does not reduce access to or control of resources for women. b. No, the project does not involve in any form discrimination in any kind of form.The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights. c.The project does not involve and is not complicit in any form of discrimination based on gender, race, religion,	Not required

4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)		sexual orientation or any other basis. d.No, the project does not discriminate on basis of gender. e. No, the project design does not contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities. f.No,the project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. g.No, the project is not complicit in restrictions of any freedoms and rights; and does not involve and is not complicit in any form of discrimination based on	

		gender, race, religion, sexual orientation or any other basis. h.No, the project does not expose women and girls to further risks or hazards. 2. a.The project does not lead or contribute sexual harassment and/or any forms of violence against women. b. There is no such risk for the project. Participation in the project is voluntary. c. The project does not restrict women's rights or access to resources (natural or economic). d.The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.	

		3.a. The Project provide equal opportunity for women and men to contribute both in volunteer and working positions. b. The project owner takes into account participation by both men and women. 3. The access of women or men, as the case may be, to Project participation and benefits is not limited. 4. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. Turkey signed the convention of International Labour Organization. The related articles are 100 and 111.	

		The project owner respects Article 5/8425 of Labour Law; which states no discrimination based on gender, race, religion, sexual orientation or any other basis is allowed.	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	Yes	The Project avoids community exposure to increased health risks[3] and does not adversely affect the health of the workers and the community.	Not required
Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture? >>	No	During the construction and operation of the project, there was not any damage, alteration or removal to the critical cultural heritage. Because the project location does not involve any critical cultural heritage. Cultural and	Not required

		environmental heritage is protected against alteration, damage or removal by the law.[15]	
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	The Project shall not involve and shall not be complicit in the involuntary relocation of people.	Not required
Principle 4.3 Land Tenure and Other Rights			
a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership?	No	a. There is no resettlement issue associated with the Project. The project does not cause any resettlement.	Not required

[15] Reference: "Law on Protection of Cultural and Environmental Assets"
http://mevzuat.basbakanlik.gov.tr/Metin.Aspx?MevzuatKod=1.5.2863&MevzuatIliski=0&sourceXmlSearch=

b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?		All the lands to be used for the project are treasury lands. Therefore, there is no private lands and resettlement included in this project. The site is located on bare hills with poor vegetation like grass and bush land. b. There are no uncertainties with regards land tenure, access rights, usage rights or land ownership.	
Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	There is no resettlement issue associated with the Project. There was not house in the project area, thus the project did not cause any resettlement.	Not required
Principle 5. Corruption			

1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	The Project does not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	Not required
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and	Yes~~No~~	1. The Project Developer shall ensure that there is no forced labour and that all employment is in compliance with national labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions. 2. Workers are able to establish and join labour organisations.	Not required

implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. 4. No child labour is allowed (Exceptions for		3. Working agreements with all individual workers are documented and implemented. The employment model applied is locally and culturally appropriate. 4. Child labour, as defined by the ILO Minimum Age Convention is not allowed. 5. The use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures are provided.	

children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures			
Principle 6.2 Negative Economic Consequences			

1. Does the project cause negative economic consequences during and after project implementation?	No	1. Financial Sustainability of the project has been discussed under Section B.5. The calculations are for the entire life of the project. 2. There are no negative economic impacts or potential risks to the local economy deriving the project activity.	Not required
Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario? >>	No	The project activity is a wind power project and does not cause any greenhouse gas emissions in project scenario.	Not required
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	Yes	The auxiliary consumption of the Project is met from the national grid.	Not required

Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project 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?	No	The project operation does not consume surface or groundwater, or discharge wastewater containing heat of chemicals. Also, the wastewater and other wastes during the construction were collected in tanks/containers since the project area is in the rural area and there is no municipal sewer system in the vicinity and these wastes were transported and disposed by the local municipality. Drinking water is supplied by bottled water.	Not required
Principle 8.2 Erosion and/or Water Body Instability			
a. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	a. No. The project activity has developed activities for prevention of soil erosion.	Not required

b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability? >>		The planning has been done in a way that the amount of excavation soil is equalized to the filling volume and excavation soils are utilized within the operation area. b. No.	
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	The project activity does not involve the use of land and soil for production of crops or other products.	Not required
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding,	No	The Project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides,	Not required

drought or other extreme climatic conditions?		erosion, flooding, drought or other extreme climatic conditions.	
Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	The project is not impacted by the use of genetically modified organisms or GMOs.	Not required
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment? >>	No	As being a renewable energy power project, the project activity does not lead to release of any pollutants. The project complies with the related regulations of Ministry of Environment and Urbanization.	Not required

		The electricity delivered to the grid by the project activity substitutes the same amount of electricity generated from the generation mix of Turkey, which is dominated by fossil fuels. During the online site visit, the stakeholders were interviewed and there wasn't any complaint on noise or shadow flickering of the turbines	
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	During operation of the project activity, there are no positive nor negative impacts expected. During excavation and construction no hazardous, toxic or flammable materials have not been used.	Not required
>>			

		Hazardous wastes are handled appropriately in closed containers and transported by licensed transporters to the licensed processing and disposal facilities.	
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers?	No	The Project will not involve the application of pesticides and/or fertilisers.	Not required
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	The Project does not involve the harvesting of forests.	Not required
Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality	No	The Project does not have any impact on the quantity or	Not required

of food available such as through crop regime alteration or export or economic incentives?		nutritional quality of food available such as through crop regime alteration or export or economic incentives.	
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry?	No	The Project will not involve animal husbandry.	Not required
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	The Project does not physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified. Regarding ornithology, EIA report including the ornithological studies have been approved by the Ministry	Not required

		of Environment and Urbanization. No negative impact by the project activity has been observed and this has also been verified during the interviews by the local people.[16] As per provided ornithology report, dated in February 2017, a migratory route linked with Kizilirmak Delta has been discovered. However, it was considered that the implementation of the project is ornithologically appropriate. Site personnel appointed by the Project Owner monitors bird/bat carcasses and nests in site. In	

[16]The Ornithological Studies are available to the VVB.

		case of any case, he would report to the management. Additionally, ornithology reports for spring and autumn periods were finalized in June 2022 and November 2022, respectively. It was reported that migration movements in which migratory herds can be observed have not occurred. And endangered bird species could not be identified within the study period[17].	
Principle 9.11 Endangered Species			
a. Are there any endangered species identified as potentially being present within the Project boundary (including	No	a. There are not any endangered species identified as potentially being present	Not required

[17] Ornithology reports, June 2022 and November 2022

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those that may route through the area)? b. Does the Project potentially impact other areas where endangered species may be present through transbounday affects?		within the Project boundary (including those that may route through the area) b. The Project does not potentially impact other areas where endangered species may be present through transboundary affects.	

APPENDIX 2- CONTACT INFORMATION OF PROJECT PARTICIPANTS

Organization name	Eksim Enerji A.Ş.
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