Gold Standard for the Global Goals

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	GS655
Title of Project	Soma Wind Power Plant
Time of First Submission Date	04/07/2022
Date of Design Certification	23/01/2012
Version number of the PDD	07
Completion date of version	16/12/2024
Project Developer	Bilgin Güç Santralleri Enerji Üretim A.Ş.
Project Representative	Bilgin Güç Santralleri Enerji Üretim A.Ş.
Project Participants and any communities involved	Bilgin Güç Santralleri Enerji Üretim A.Ş.
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	01- ACM0002: 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
SDG 13 Climate Action	Emission Reductions	CO_2: 195,108 tCO2/yr CO: 40.97 tons/yr tons/yr NMVOC: 3.54 tons/yr NO_x: 330.49 tons/yr	VERs
SDG 7 Affordable and clean energy	MWh of renewable energy generated	307,500	MWh/yr
SDG 8 Decent work and economic growth	Number of employees and Training given	39 people	Number
		1	Training/employee/yr
SDG 6 Clean water and Sanitation	Avoidance of wastewater discharge by thermal power plants and Avoidance of wastewater discharge the project activity due to domestic use	8,044,390	m^3

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

Bilgin Güc Santralleri Enerji Üretim A.S. installed 36 wind turbines, each having a capacity of 2.5 MW in Soma and Kirkagac Towns. 12 of the turbines are located in Kirkagac on East of the province and 24 of them are on West in Soma Town. EMRA granted Soma WPP with a Generation License on 17/07/2008. The project activity was implemented in 3 phases. The power plant started operation with 13 turbines on 13/08/2010, 11 turbines were commissioned 23/09/2010 and the remaining 12 turbines were commissioned on 11/11/2010.

The turbines (3-Bladed) of the project are located on four hills namely: Davullu, Karadede, Ören and Şifa hills and cover an area of 150 hectares. The site selection is based on detailed wind measurements, smoothness of the surface, availability of the topographical conditions for access and construction, the available area size and the distance to the national grid connection point: The connection point is Soma B Thermal Power Plant TM, 154 KV bara.

EMRA revised the Generation License of the Project Activity on 18/04/2019 to have a total capacity of 120 MW. On 05/11/2016, seven additional turbines, each having a capacity of 3.0 MW, started generating electricity and on 16/12/2016, three additional turbines, each having a capacity of 3.0 MW started generating electricity so that the total capacity of the project reached 120 MW. There are currently 46 wind turbines operating in the project activity. As per the Generation License for the installed capacity of 120 MW, the Project Activity produces 420,000 MWh of electricity per year. However, since the Project did not undergo a design change procedure under GS, emission reduction claims will be conducted with the 90 MW registered capacity. As per the Feasibility Report prepared by Garrad Hassan for 90 MW registered capacity, 307,500 MWh electricity is generated yearly. Considering this yearly generation amount stated in the license, the project activity will result in an annual emission reduction of 195,108 tons of CO_2e. Moreover, project activities will further disseminate wind energy and extension of national power generation.

With a total capacity of 90 MW, the plant's estimated electricity generation is 307,500[1] MWh per year. The voltage is stepped up to 154 kV, and the power is fed to the grid through the Soma B Termik Santrali TM (Substation) of the Turkish Electricity Transmission Company (TEİAŞ). An estimated generation of 307.5 GWh per year by the efficient utilization of the available wind energy by project activity replaces the grid electricity, which comprises different fuel sources, mainly fossil fuels.

Table 2 Project Implementation Schedule

Major Event	Date
Investment decision Date	03/06/2008
License Date:	17/07/2008
Signing of ERPA	08/10/2008
LSC Meeting	10/11/2008
Last Modification to license	07/04/2009
Turbine Supply and Installation Agreement	06/07/2009
DOE Agreement	21/05/2009
Construction/ Recruitment Start Date	20/08/2009
DOE Site Visit	25/08/2009
LSC Report Uploaded to APX/GS Registry	22/01/2009
LSC Feedback report uploaded	18/09/2009
Partial Commissioning Date (first 32.5 MW –T1-T13)	13/08/2010
First Crediting Period Start Date	13/08/2010
First Monitoring Period Start Date	13/08/2010
Partial Commissioning Date (next 27.5 MW T14-T24)	23/09/2010
Full Commissioning Date (next 30 MW T25-T36)	11/11/2010
Registration Date under GS	23/01/2012
First Monitoring Period End Date	30/06/2012

[1] Feasibility Report prepared by Garrad Hassan

Major Event	Date
Second Monitoring Period Start Date	01/07/2012
Second Monitoring Period End Date	31/12/2012
First Crediting Period End Date	12/08/2017
Second Crediting Period Start Date	13/08/2017
Generation License amendment date	18/04/2019
Second Crediting Period End Date	12/08/2024
Third Crediting Period Start Date	13/08/2024
Third Crediting Period End Date	12/08/2031

The Project Activity has undergone two verifications, as seen from the above table. However, between 01/01/2013 – 12/08/2017, no verification was conducted due to the fact that the VER credits prices were quite low during those times in which this project should have held its verification process. Unfortunately, considering the cost of consultancy, VVB and GS fees for a verification process, it was not additional financial burden for Project Owner without meaningful revenue, to verify and issue the associated VERs. However, after completion of Crediting Period Renewal 1, third monitoring period verification process has been initiated.

A.1.1. Eligibility of the project under Gold Standard

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

- The Project applies ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0.
- The project type is power generation using Wind Energy, an eligible project type per 2.1.2 a) and 2.1.2 b) of the Eligible Project Types under Renewable Energy Activity Requirements.
- The project activity results in the displacement of electricity from thermal power plants while contributing to the sustainable development of Turkey. Hence, the Project contributes to the Gold Standard Vision and Mission.
- Wind power is an approved project type and does not require approval from Gold Standard.

- This project activity is not associated with geo-engineering or energy generated from fossil fuel or nuclear fossil fuel switch, nor does it enhance or prolong such energy generation.
- The Project is not registered with any other schemes.

a) General Eligibility Criteria under Renewable Energy Activity Requirements
Project Type: The project type is eligible as discussed above. Soma WPP is a wind power project. There is no change regarding the type of the project during this renewal of the crediting period.

b) Project Location: The Project is located in Turkey, which is not located in an HCV area. The location of the project is given under Section A.2 of this report. For this renewal of crediting period, there is no change in the location of the Soma WPP. Soma wind power project seeks registration only in the GS4GG program. The proposed project activity has not participated in other emissions trading programs, other binding limits, other forms of environmental credits or other GHG programs. Any other GHG programs do not reject this Project. Therefore, no double counting of impacts is potentially in this project activity. This information is confirmed in the no-double counting declaration by the project owner. Thus, the Project is eligible.

c) Project Scale: The Project is a large-scale project. For this renewal of crediting period, there is no change in the scale of the Soma WPP.

d) Host Country Requirements: There are no additional laws that came into force that have an impact on the project activity, and the project activity is still in line with the available law and regulations. The project activity complies with applicable Turkey's laws and environmental, ecological and social regulations, including the law on investment, the law on environmental protection, the electricity law, the labour code, the law on gender equality, the land law. Bilgin Enerji has been granted a generation license as WPP for a 120 MW wind power plant by EMRA. "Environmental Impact Assessment (EIA) Is Not Required" certificate was granted on 02 April 2013 to the Project Activity for 120 MW installed capacity by the Ministry of Environment and Urban Planning.
Contact Details: This information has been given under Appendix 2 in this PDD. There is no change regarding information about the contact details of the Soma WPP.

- Legal Ownership: This information has been given in PDD. The Legal Ownership specified in the first crediting period has not changed after the renewal of crediting period. Bilgin Güç Santralleri Enerji Üretim A.Ş. which is legal developer and owner of the project.
- Other Rights: This information has been given in PDD. The legal rights specified in the first crediting period have not changed after the crediting period renewal process. Bilgin Güc Santralleri Enerji Üretim A.S. has the legal rights for the VER credits that will be issued under Gold Standard. As per the latest Generation License dated 18/04/2019 the name of the company was changed from Bilgin Rüzgar Santrali Enerji Üretim A.Ş.(this former name was presented in the generation license dated 17/07/2008) to Bilgin Güç Santralleri Enerji Üretim A.Ş. Additionally, as per Trade Registry Gazette dated 14/03/2019 (provided to the VVB for review), two separate legal entity being Bilgin Rüzgar Santrali Enerji Üretim A.Ş. and Bilgin Güç Santrallerİ Enerji Üretim A.Ş. were united to be one legal entity with the latest official legal name of Bilgin Güç Santralleri Enerji Üretim A.Ş.
- Official Development Assistance (ODA) Declaration: The project developer has already submitted the Official Development Assistance (ODA) declaration.

- The project helps Turkey stimulate and commercialise the use of grid-connected renewable energy technologies and markets. After the renewal of crediting period, the project type has not changed. So, it is still an eligible type under Gold Standard for the Global Goals. In addition, Soma WPP demonstrates its contribution to the Sustainable Development Goals and impact on SDG 13, SDG 8, SDG 7 and SDG 6. The project contributed to mentioned SDGs (SDG 13, SDG 8, SDG 7, SDG 6) before the renewal of crediting period. The project also will continue to contribute with many Safeguarding Principles as it did in the first crediting period. There was no update after the renewal of crediting period regarding this issue.
- The emissions reduction calculations are based on two main parameters: the energy produced and the grid emission factor. The project baseline is still the "ACM0002 "Grid-connected electricity generation from renewable sources". The project activity is still in line with the first and second crediting periods. There will be no changes to the Eligibility Principles, Criteria and Requirements during this new crediting period.

- After the renewal of crediting period, there were no updates to the Gold Standard activity, product, and methodology specific Requirements. For this crediting period, the specified product requirements are the same; Product Requirements applied: GHG Emissions Reduction & Sequestration, Units/Products: VERs

The project activity meets the design certification renewal criteria as per section 5.1.47 of the GS4GG Principles & Requirements document as described below:

a) There is no change in the Project as related to the General Eligibility Criteria

b) The project meets GS4GG updates according to Gold Standard Requirements

c) The baseline scenario is identified according to the "Baseline Methodology Procedure" of ACM0002 ver.21. The project activity is the installation of a new grid-connected wind farm with 36 turbines and is not modification/retrofit of an existing grid-connected power plant. Therefore, there is not any impact of change on the Eligibility Principles, Criteria and Requirements.

The Project applies ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0.

Soma WPP is not registered with any other voluntary or compliance schemes, and no potential exists for double counting of impacts. No GHG related environmental credits are applied to the Turkish power sector. Moreover, Turkey's GS655 Soma Wind Power Plant Project is not included in an ETS or other GHG trading mechanism. Since an ETS is not implemented in Turkey, an emission reduction cap has not been enforced for any sector. As an ETS is not implemented in Turkey, no double-counting risk exists for Turkey and this project.

This information is confirmed in the no-double counting declaration by the Bilgin Güç Santralleri Enerji Üretim A.Ş.[2] If any such risk of double counting exists in Turkey, the

[2] Necessary Commitment Letter has been provided to the VVB.

Project Developer (Bilgin Güç Santralleri Enerji Üretim A.Ş.) shall retire eligible units equal to the quantity of Gold Standard VERs.

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

Bilgin Güç Santralleri Enerji Üretim A.Ş. is the developer and owner of the Project. The Republic of Turkey is the host country. Turkey has recently ratified the Kyoto Protocol (on 5 February of 2009). Turkish National Focal Point to the UNFCCC is the Ministry of Environment and Forestry[3].

As the project developer, Bilgin Enerji believes that efficient utilization of all kinds of natural resources with harmony coupled with responsible environmental considerations is vital for the sustainable development of Turkey and the World. This has been a guiding factor for the shareholders towards the designation and installation of a wind power project. Other than the objective of climate change mitigation through a significant reduction in greenhouse gas (GHG) emissions, the Project has been carried out to provide a social and economic contribution to the region in a sustainable way. The benefits that the Project brings compared to the business-as-usual scenario can be summarized under four primary indicators:

Environmental

The project activities replace the grid electricity, which comprises different fuel sources causing greenhouse gas emissions. By substituting in the consumption of these fuels, it contributes to the conservation of water, soil, flora, and faunas. It transfers these natural resources and the additional supply of these primary energy sources to future generations. In the absence of the project activity, an equivalent amount of electricity would have been generated from the power plants connected to the grid, most of which are based on fossil fuels. Thus, the Project is replacing the greenhouse gas emissions (CO_2, CH_4) and other pollutants (SO_X, NO_X, particulate matters) from extraction, processing, transportation, and burning of fossil fuels for power generation connected to the national grid.

[3] UNFCCC, list of the National Focal Points https://unfccc.int/process/parties-non-party-stakeholders/parties/national-focal-point

Economical

Firstly, the Project helps accelerate the growth of the wind power industry and stimulate the designation and production of renewable energy technologies in Turkey. Then, other entrepreneurs, irrespective of the sector, are encouraged to invest in wind power generations. It also assists in reducing Turkey's increasing energy deficit and diversifying the electricity generation mix while reducing import dependency. Importantly, rural development is maintained in the areas around the project site by providing infrastructural investments to these remote villages.

Social

All project activities enhance local employment during the construction and operation of the wind farm. As a result, increased job opportunities and project trade activities partially eliminated local poverty and unemployment. Construction materials for the foundations, cables, and other auxiliary equipment were preferentially sourced locally. Moreover, as a contribution of the Project to the region's welfare, the quality of the electricity consumed in the region is increased by local electricity production, which also contributes to decreasing distribution losses.

Technological

The proposed Project's implementation contributes to the broader deployment of wind power technology locally and nationally. It demonstrates the viability of larger grid-connected wind farms that support improved energy security, alternative sustainable energy, and renewable energy industry development. This will also strengthen the pillars of the Turkish electricity supply based on ecologically sound technology.

A.2 Location of project

The turbines that are in the scope of this Crediting Period were located in Soma and Kirkagac Towns. 12 of the turbines are located in Kirkagac on East of the province and 24 of them are on West in Soma Town. More specifically, the turbines of the project are located on four hills namely: Davullu, Karadede, Ören and Şifa hills and cover an

area of 150 hectares[4]. The closest settlement to the nearest turbine is Göktaş Village in Kozluören, which is approximately 1130 m away.

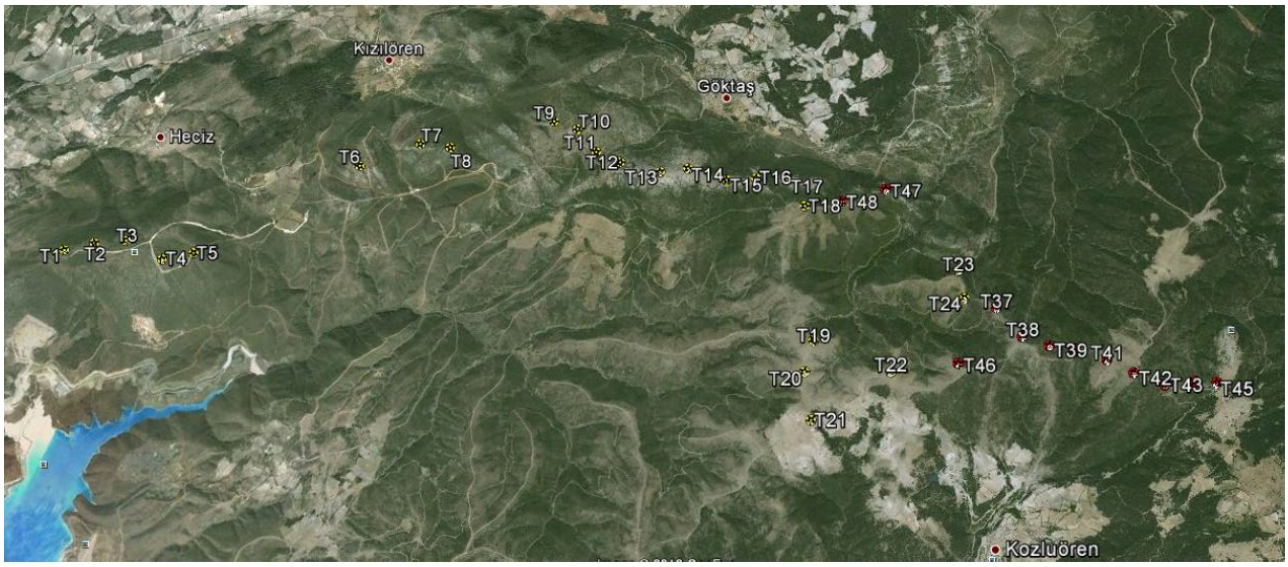

Figure 1 Location of the turbines operational in the Project Activity

Table 3 Geographical Coordinates of the turbines operational in the Project Activity[5]

Wind Turbine No.	Latitude (N)	Longitude (E)	Wind Turbine No.	Latitude (N)	Longitude (E)
1	39°15'53.68"	27°36'47.51"	**19**	39°17'24.03"	27°41'29.57"
2	39°16'0.35"	27°36'56.62"	**20**	39°17'13.99"	27°41'32.48"
3	39°16'5.84"	27°37'7.73"	**21**	39°17'10.75"	27°41'43.55"
4	39°16'6.65"	27°37'25.39"	**22**	39°17'26.47"	27°42'1.03"
5	39°16'13.09"	27°37'34.80"	**23**	39°18'5.44"	27°42'5.59"
6	39°17'4.28"	27°38'10.31"	**24**	39°17'58.61"	27°42'12.87"
7	39°17'20.60"	27°38'26.70"	**25**	39°18'8.45"	27°50'39.71"
8	39°17'24.20"	27°38'38.71"	**26**	39°18'14.15"	27°50'49.34"

[4] Please See Page 17 of the latest PIF dated 04/2013
[5] Geographical coordinates of the turbines are taken from the Generation License of the Project Activity.

Wind Turbine No.	Latitude (N)	Longitude (E)	Wind Turbine No.	Latitude (N)	Longitude (E)
9	39°17'47.01"	27°39'12.07"	**27**	39°18'20.03"	27°51'6.74"
10	39°17'47.44"	27°39'23.35"	**28**	39°18'28.59"	27°51'15.99"
11	39°17'44.49"	27°39'34.42"	**29**	39°18'37.01"	27°51'26.82"
12	39°17'44.42"	27°39'46.11"	**30**	39°18'51.74"	27°51'38.86"
13	39°17'46.92"	27°40'2.96"	**31**	39°18'42.98"	27°51'52.45"
14	39°17'51.90"	27°40'12.36"	**32**	39°18'17.62"	27°52'30.80"
15	39°17'55.38"	27°40'27.55"	**33**	39°18'13.83"	27°52'20.65
16	39°18'0.96"	27°40'37.33"	**34**	39°18'9.40"	27°52'10.95"
17	39°18'4.95"	27°40'48.93"	**35**	39°18'3.16"	27°52'3.02"
18	39°18'0.57"	27°41'0.12"	**36**	39°17'56.33"	27°52'10.20"

A.3 Technologies and/or measures

The project currently comprises 46 wind turbines, 36 of which have a unit capacity of 2500 kW, and 10 of them have a unit capacity of 3000 kW. Nordex is decided as an equipment provider due to the outstanding features of its product regarding safety factors, simple, durable design for low maintenance and long-life operation, high efficiency, and pleasing visual appearance. The key parameters about the technical design of the selected model Nordex N90 turbines are listed below in Table 4; and, the key parameters about the technical design of the chosen model Nordex N117 turbines are listed below in Table 4 and Table 5.

Table 4: Technical specifications of Nordex N90 turbines

Specifications	Nordex N90
Rated Power (kW)	2,500
Rotor Diameter (m)	90
Hub Height (m)	80
Num. of Blades	3
Swept Area (m²)	6,362
Cut-out wind speed (m/s)	25

Table 5: Technical specifications of Nordex N117 turbines

Specifications	Nordex N117
Rated Power (kW)	3,000
Rotor Diameter (m)	116,8
Hub Height (m)	91
Num. of Blades	3
Swept Area (m²)	10,715
Cut-out wind speed (m/s)	25

The project activity will achieve emission reductions by avoiding CO_2 emissions from the business-as-usual scenario electricity generation produced by mainly fossil fuel-fired power plants within the Turkish national grid (Figure 2). Total emission reduction over the 7-year crediting period is expected to reach **1,365,756** tCO_2e with the assumed annual total registered net electricity generation of **307,500 MWh**.

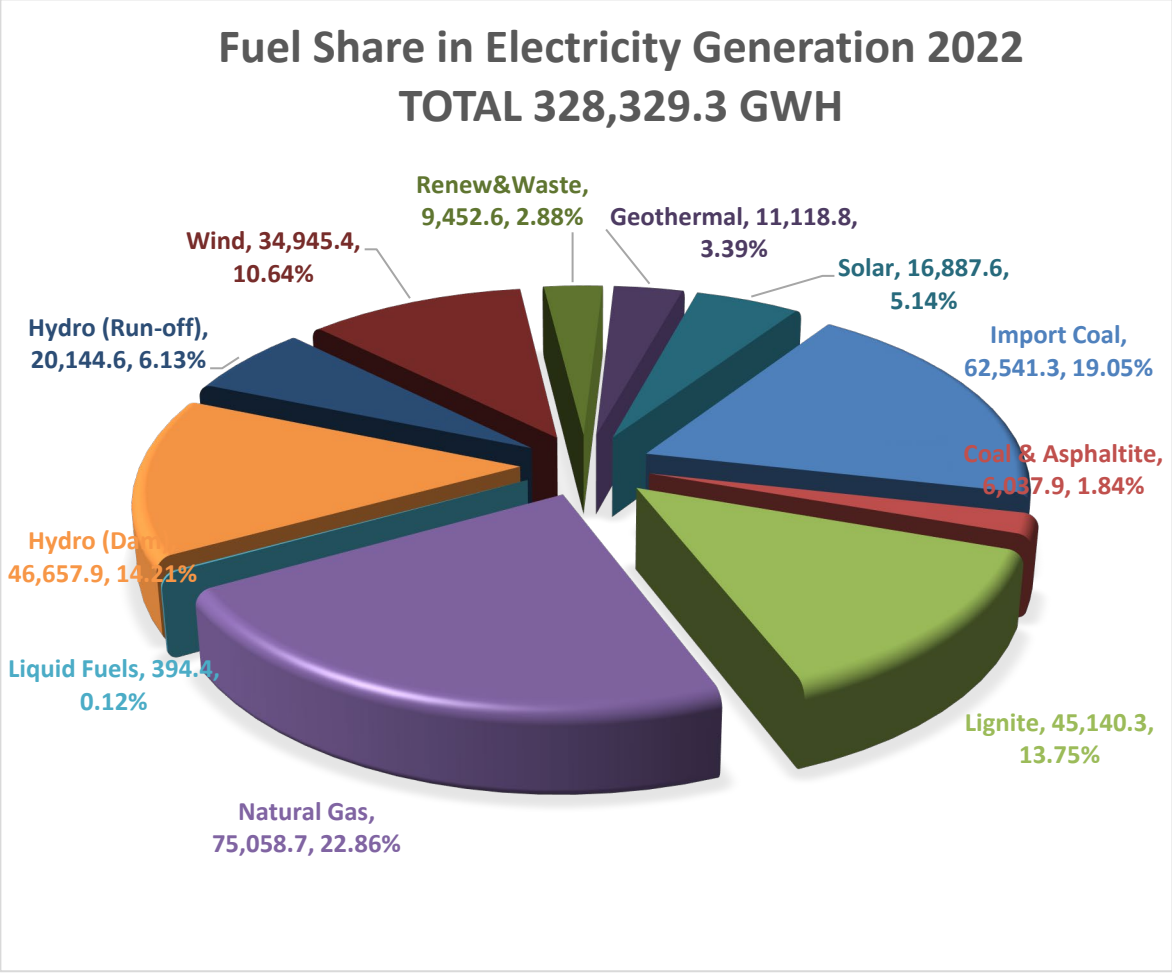

Figure 2 Share of Sources in Electricity Generation 2022

Although Turkey has an excellent wind resource, substantial space, a reasonably good electrical infrastructure, and an impending electricity shortage, it uses negligible capacity (less than 4%) of its onshore potential, estimated as 47,849.44 MW by the Renewable Energy General Directorate.[6] Lack of attractive incentives and tax advantages, limited grid access, and limited turbine supply constitutes the significant barriers to wind energy.

Renewable energy law, enacted in 2005, which had amendments at the end of 2010 regarding feed-in tariffs, stipulates a purchase obligation by the retail companies for 10 years with a purchase price of 7.3 USD/kWh (~5.5 €c/kWh) for the power plants put in operation by the end of 2015[7]. This tariff was much below the average remuneration in the leading wind markets. It did not constitute a sufficient incentive for investments in Turkey's minor experienced wind energy sector. The revenues calculated according to these regulations are considered in the investment planning of the projects. They do not lead to returns that allow the Project to be profitable or attractive for capital investors and lenders.

These numbers and figures show the contribution of a wind power project like Soma WPP to the development of environmentally friendly electricity generation instead of the described Turkish mix of hydroelectric and fossil-fuelled power plants, which are better known financially more attractive from an investor's point of view. The emission reductions would not occur in the absence of the proposed project activity because of various real and perceived risks that impede the provision of financing.

Soma WPP, as a large wind power plant project, is a perfect project to demonstrate the long-term potential of wind energy to efficiently reduce GHG emissions and diversify and increase the security of the local energy supply contributing to sustainable development. Wind-driven turbines will rotate in generators, and electricity generated

[6] See, Page 40, https://www.mmo.org.tr/sites/default/files/T%C3%BCrkiyeEnerjiG%C3%B6r%C3%BCn%C3%BCm%C3%BC_2018_Sunumu_%2812.04.2018%29.pdf
[7] See : http://www.epdk.org.tr/documents/elektrik/mevzuat/kanun/Elk_Kanun_Yek_Kanun.doc (List I in page 10)

here will be transferred to the grid for the consumer without any greenhouse gas emissions. The Gold Standard certification shall help realize this seminal technology by compensating for the lack of financial incentives in the Turkish renewable energy market.

The second 7-year crediting period is from 13/08/2017 to 12/08/2024. The end date for the First Crediting Period was 12/08/2017. For this reason, the CPII start date is now set as 13/08/2017. And accordingly, the end date of the CP is now set as 12/08/2024. Due to a delay in the completion of re-validation beyond the last date of the First Crediting Period, no ERs will be issued for the delay period. The project will be able to certify the period between the submission of the Renewal opinion by the VVB for Design Review to Gold Standard was completed and the end date of the Second Crediting Period. No issuance will be requested during the 2nd CP for the period between 13/08/2017 and 04/07/2022. 04/07/2022 corresponds to the date of the submission of the Renewal opinion by the VVB for Design Review to Gold Standard so that the project will be able to certify the period between 04/07/2022 and 12/08/2024. Third monitoring period has been initiated and period is between 04/07/2022 – 30/06/2023. In addition, the third 7-year crediting period is expected to be from 13/08/2024 to 12/08/2031.

Voluntary carbon markets sustained a loss after 2012, which has continued until 2020. Carbon certification processes created an extra expense, not revenue, for this period. Due to low VER credits prices, it was an additional financial burden for Project Owner without meaningful revenue to take action considering the cost of consultancy, VVB and GS fees. Since the carbon credits sold were low in the market during this period, the project proponent wanted to observe the market and wait a little bit for meaningful revenue. Project Owner has started the certification process for second crediting period between 04/07/2022 – 30/06/2023.

A.4 Scale of the project

The Project's installed and registered capacity per license issued by EMRA (Energy market Regulatory Authority) is 90.0 MWe, which consists of a total of 36 turbines (36x2.5 MWe), the Soma WPP project is a large scale project.

A.5 Funding sources of project

A significant amount of bank loan has been received for this project. Therefore, the project activity doesn't 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)

For the determination of the baseline, the official methodology ACM0002 version 21.0.0, "Grid-connected electricity generation from renewable sources"[8] , is applied, using conservative options and data as presented in the following section. This methodology refers to four Tools, which are:

1. Tool to calculate the emission factor for an electricity system (Version 07.0.0)[9];
2. Tool for the demonstration and assessment of additionality (Version 7.0.0[10];
3. Tool to determine the remaining lifetime of equipment (Version 01.0.0)[11]
4. 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)[12]

B.2. Applicability of methodology (ies)

The choice of methodology ACM0002 v21 is justified as the proposed project activity meets its applicability criteria:

[8] https://cdm.unfccc.int/methodologies/DB/HF3LP6O41YY0JIP1DK6ZRJO9RSCX3S
[9] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[10] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[11]This tool is applied to demonstrate the total lifetime of the onshore wind turbines https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf
[12] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf

Applicability Conditions of ACM002	Applicability to This Project Activity
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)	Soma WPP is a grid-connected renewable power generation project activity that install a wind power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield plant). Thus, it meets the said applicability condition.
The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit.	The project activity is the installation of 36 wind turbine generators (as previously discussed). Hence, meets this criterion.
In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.	The project activity does not involve capacity additions, retrofits, rehabilitations or replacements. Hence this criterion is not applicable to the project activity.
In case of hydro power plants, one of the following conditions shall apply:	The project activity is not a hydro power plant. Hence this applicability criterion is not relevant to the project activity.

Applicability Conditions of ACM002	Applicability to This Project Activity
a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs, or b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density calculated using equation (3), is greater than 4 W/m^2, or c) The project activity results in single or multiple reservoirs and the power density, calculated using equation (3), 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 (3), 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 (4), is greater than 4 W/m^2 ii. (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: • Lower than or equal to 15 MW, and • Less than 10 per cent of the total installed capacity of integrated hydro power project	

Applicability Conditions of ACM002	Applicability to This Project Activity
In the case of integrated hydro power projects, project proponent shall: a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project, or b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.	The project activity is not a hydro power plant. Hence this applicability criterion is not relevant to the project activity.
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	Project activity does not involve: a) Switching from fossil fuels to renewable energy sources at the site of the project activity. b) Biomass fired plants. Hence this criterion is not applicable.

Applicability Conditions of ACM002	Applicability to This Project Activity
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, i.e. 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 is not a retrofit, rehabilitations, replacements, or capacity addition; hence this applicability criterion is not relevant.
In addition, the applicability conditions included in the tools referred to above apply.	Applicability conditions of the applied tool are justified.

Applicability Conditions of the Tools employed	Applicability of the Tool to This Project Activity
Tool to calculate the emission factor for an electricity system (Version 07.0.0)	
a) This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects) b) 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.	a) This condition is applicable to the Project Activity since the project activity substitutes grid electricity, and thus, the Project results in savings of electricity that the grid would have provided. b) The emission factor used for this Project Activity has been calculated for grid power plants only. c) This Project is not a CDM Project. d) This Project Activity doesn't employ biofuels.

Applicability Conditions of the Tools employed	Applicability of the Tool to This Project Activity
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. c) 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. d) Under this tool, the value applied to the CO2 emission factor of biofuels is zero	
Tool for the demonstration and assessment of additionality (Version 5.2)	
a) 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. b) Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory	a) The additionality of this Project Activity was evaluated at the First Crediting Period employing the Tool for the demonstration and assessment of additionality (Version 5.2). Thus, no new additionality assessment was carried out during this Crediting Period Renewal. b) The additionality of this Project Activity was evaluated at the First Crediting Period. Thus, no new additionality assessment was carried out during this Crediting Period Renewal.

Applicability Conditions of the Tools employed	Applicability of the Tool to This Project Activity
Tool to determine the remaining lifetime of equipment (Version 01.0.0)	
a) The tool may be used for project activities which involve the replacement of existing equipment with new equipment or which retrofit existing equipment as part of energy efficiency improvement activities.	a) The tool is used for this Project Activity to determine the project's total lifetime. Although this Project Activity doesn't involve the replacement of existing equipment during the Second Crediting Period there were newly added turbines. This tool states that: Project participants may use one of the following options to determine the remaining lifetime of the equipment: (a) Use manufacturer's information on the technical lifetime of equipment and compare to the date of first commissioning; (b) Obtain an expert evaluation; (c) Use default values. Option c is chosen and the default values stated in the methodology is used. From the table in this tool it can be seen that for the technical lifetime onshore wind turbines 25 years can be accepted.
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)	
a) This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 49 (a) of the modalities and procedures of the clean development mechanism. The tool consists of two steps. The first step provides an approach to evaluate	a) Detailed assessment of the validity of the original baseline as per the Tool was carried out in Section B.4 of this PDD. Please see Section B.4.

Applicability Conditions of the Tools employed	Applicability of the Tool to This Project Activity
whether the current baseline is still valid for the next crediting period. The second step provides an approach to update the baseline in case that the current baseline is not valid anymore for the next crediting period.	

B.3. Project boundary

As per the Approved Large Scale Consolidated Methodology ACM0002, the project boundary is "The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to." Correspondingly, the project boundaries include the project site and all power plants attached to the Turkish National Grid in this project activity.

The Project uses wind energy to produce electricity. The kinetic power of the wind is converted to electrical energy, which then will be transferred to the grid. Back-up power generators in the wind farm will only be used when the wind farm is out of service and power cannot be supplied from the grid. Hence, emissions due to usage of backup power generation are expected to be very low and are taken to be zero complying with the Tool.

The project activity and baseline scenario are defined as the greenhouse gasses and emission sources. As a result, the project boundary for Soma WPP is as demonstrated in Figure 3 below:

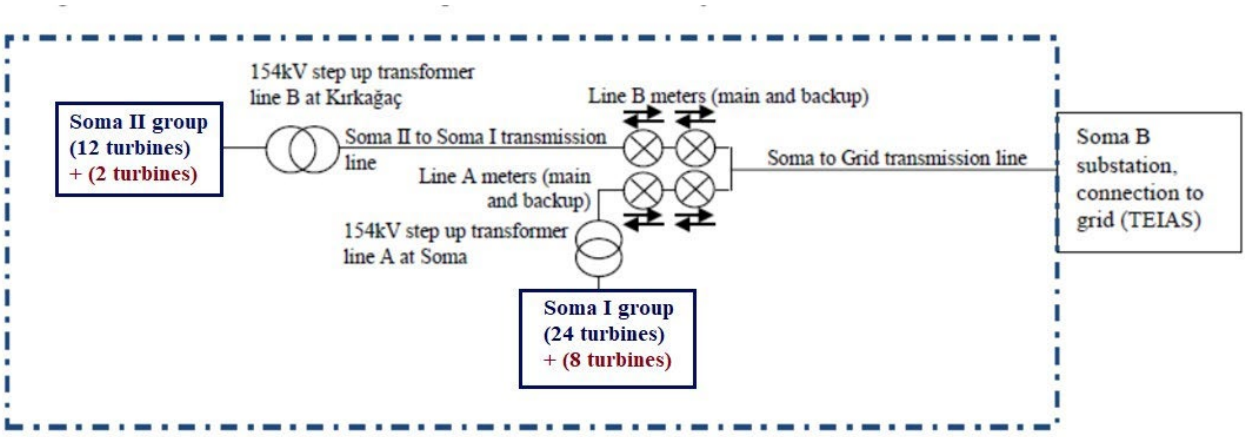

Figure 3 Project Boundary

Based on the above operation diagram, the baseline and project activity related greenhouse gases which are considered in baseline calculation is given below, in Table 6:

Table 6 Emissions sources included in or excluded from the project boundary

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	CO2 Emissions from electricity generation in fossil fuel-fired power plants that are displaced due to the project activity	CO2	Yes	Main emission source: Fossil fuels fired for electricity generation cause CO_2 emissions. It is included in the baseline calculation to find the displaced amount by the project activity.
		CH4	No	Even though there may be some CH4 and N_2O emissions during electricity generation are negligible and not included in the baseline calculation to be conservative and comply with Table-1 of the methodology (ACM0002 v21.0) (page 6).
		N2O	No	
Project scenario	Emissions during construction and operation of the project activity	CO2	No	Minor emission source: Even though there may be some CO_2 emissions during construction are negligible

		CH_4	No	Minor emission source: there are no CH4 emissions during construction and operation.
		N_2O	No	Minor emission source: there are no N2O emissions during construction and operation.

B.4. Establishment and description of baseline scenario

The baseline scenario is identified according to the "Baseline Methodology Procedure" of ACM0002 ver.21. The project activity is the installation of a new grid-connected wind farm with 36 turbines and is not modification/retrofit of an existing grid-connected power plant. So, the first identification of this procedure is selected for the proposed project activity, which is described as:

"Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculation of Ministry of Energy and Natural Resources of Turkey".

The following national laws and regulations have been reviewed and considered to ensure compliance with relevant mandatory and/or sectoral policies in the baseline scenario assessment:

- Environmental Law:

This law sets the framework for protecting and improving the environment. The project complies with the Environmental Law by adhering to required environmental standards, including emissions limits and sustainability requirements during construction and operation phases.

- Forest Law:

This law governs the protection and use of forest areas in Turkey. The project ensures compliance by avoiding impacts on forested areas or obtaining necessary permits if such impacts are unavoidable.

- Environmental Impact Assessment (EIA) Regulation:

The project has undergone the required Environmental Impact Assessment in compliance with this regulation, ensuring the evaluation of environmental risks and mitigation measures during its design and implementation phases.

- Energy Market Regulatory Authority Regulation:

As per EPDK regulations, the project has obtained all necessary permits and licenses for electricity generation. The licensing process includes technical, financial, and environmental compliance reviews, ensuring alignment with national energy policies.

- Law on the Use of Renewable Energy Sources (Law No. 5346):

The project was developed under the framework of Law No. 5346, which regulates and promotes the use of renewable energy sources, and has benefited from the incentives provided.

The project baseline scenario aligns with all applicable laws and regulations. The above-mentioned legal frameworks confirm that the project has been designed and implemented within the scope of national policies and environmental safeguards. No additional legal changes or regulatory developments have occurred that would impact the baseline scenario since the first crediting period.

The methodological tool "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period" (version 03.0.1) is adopted to assess the continued validity of the baseline and to update the baseline. This Tool provides a stepwise procedure to determine 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. According to this tool, the following steps are applied.

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

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

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

During the First Crediting Period, the baseline scenario for the project had been defined as:

"Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants."

The current baseline of the project is the same as the first crediting period and complies with the existing legal framework. No additional laws that impacted the project activity came into force, and the project activity is still in line with the available law and regulations.

Step 1.2 Assess the impact of circumstances.

There has been no significant deviation or change in the market characteristic during the first crediting period.

To describe the baseline and its development for the project activity, Turkey's long-term electricity demand and supply projections are assessed.

Turkey's long-term electricity demand and supply projections are assessed to describe the baseline and development for the project activity.

Demand for electricity in Turkey is growing rapidly, with an average of 3.3%[13] for the previous ten years. TEİAŞ, responsible for grid reliability, has prepared an electricity demand projection for the next ten years (2023-2032) for Turkey and announced on July 2019, given in Figure 5 and Figure 6, reflecting the continuation of current demand growth[14].

Table 7: Low and High Demand Projection Scenarios for Ten Years Period (GWh)

Scenarios	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
High Scenario	235,764	244,790	254,017	263,170	272,333	281,350	290,593	299,869	309,408	319,153

[13] See, https://www.teias.gov.tr/tr-TR/ilgili-raporlar 10 Yıllık talep tahminleri raporu https://webim.teias.gov.tr/file/f09f9857-4844-42b0-a0fa-74cdacfe4013?download
[14] See, https://www.teias.gov.tr/tr-TR/ilgili-raporlar 10 Yıllık talep tahminleri raporu https://webim.teias.gov.tr/file/f09f9857-4844-42b0-a0fa-74cdacfe4013?download

Low Scenario	214,925	219,940	225,089	230,102	235,013	239,630	244,301	248,889	253,587	258,200

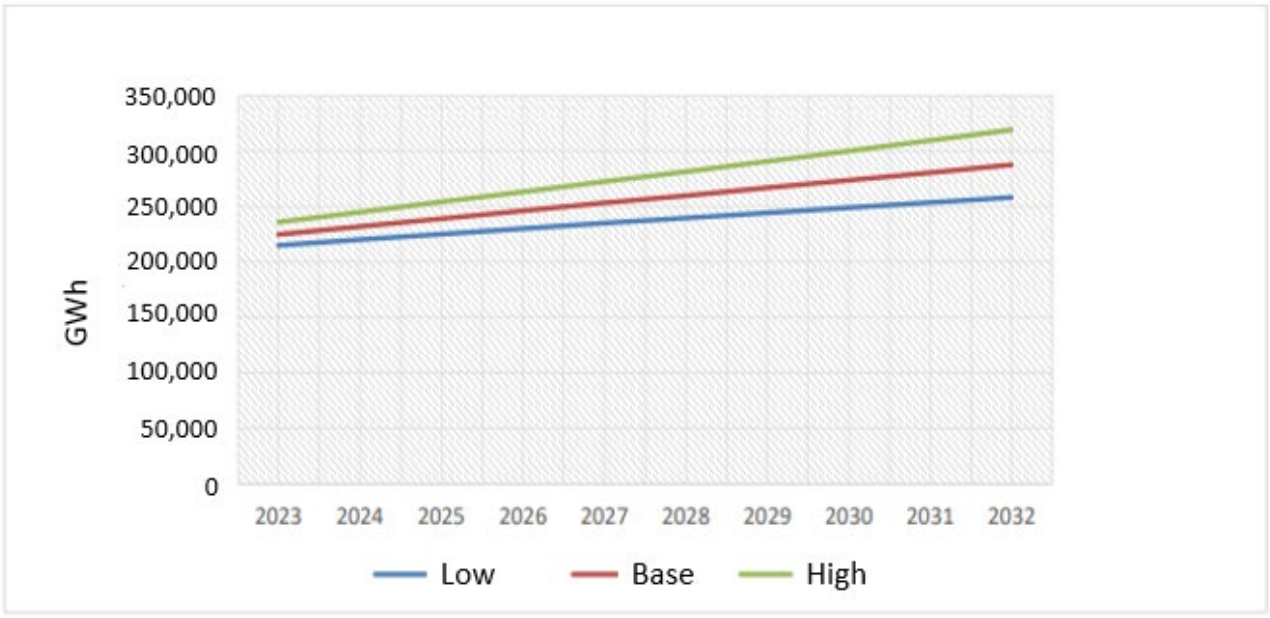

Figure 4 Electricity Demand Projections for Ten Years

This projection also forecasted electricity supplies considering all operational power plants under construction and newly licensed. Generation projection based on project generation is given in Figure 5.

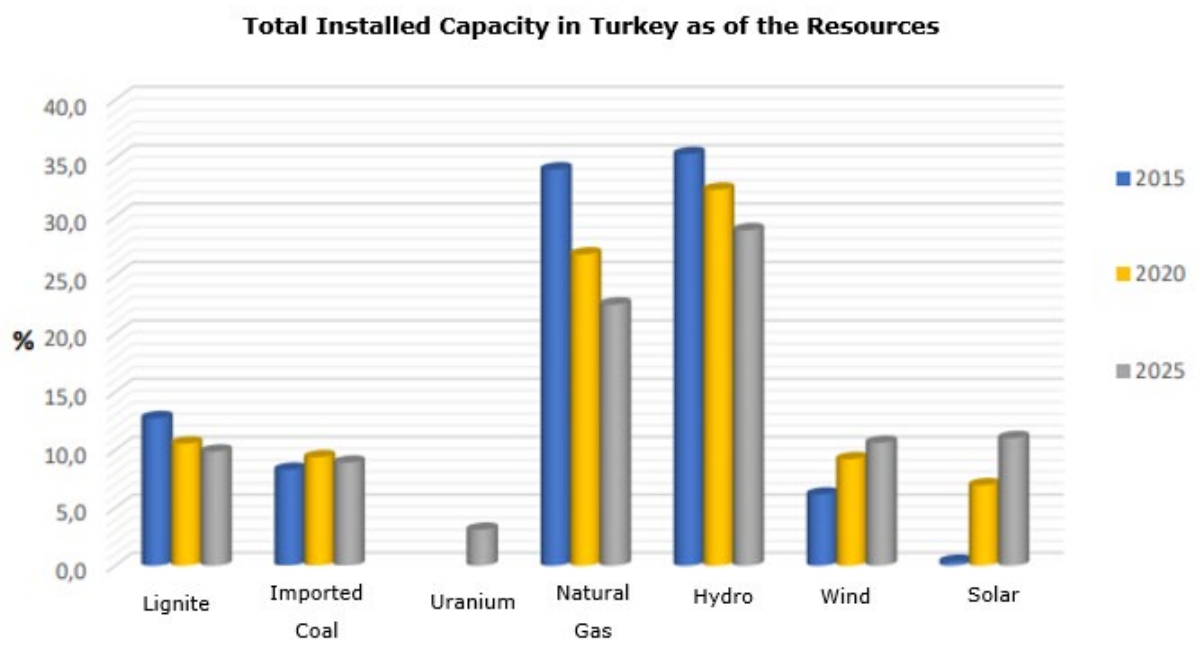

Figure 5 Total Installed Capacity in Turkey as of the Resources shares (%)[15]

According to the 10-year projection based on the chart, fossil fuels will continue to play a significant role in Turkey's electricity generation. By 2025, natural gas is expected to account for 22.5% of the total capacity, maintaining its dominance, while imported coal and lignite will together contribute around 21%. Hydro power will remain a major component, representing 29% of the total capacity. In contrast, non-hydro renewable energy sources, including wind and solar, are projected to grow steadily, reaching 21.6% in total by 2025. Despite this increase in renewable energy, the Turkish electricity sector will still reflect a strong reliance on fossil fuels, highlighting the gradual yet insufficient transition towards a more sustainable energy mix.

[15] See, https://www.epdk.gov.tr/Detay/DownloadDocument?id=mX/P3YDBw1U= (page 112)

Table 8 By Primary Energy Resources, Installed Capacity of Turkey (2009-2023)[16]

Unit :MW

	Coal	Fuel Oils	Natural Gas	RES (renewable energy sources) + Waste + Waste Heat	Multi Fuel	Hydro	Geothermal	Wind	Solar	TOTAL
2009	10,590.3	16,99.1	11,825.6	86.5	5,137.6	14,553.3	77.2	791.6	-	44,761.2
%	23.66	3.80	26.42	0.19	11.48	32.51	0.17	1.77	-	100.0
2023	21,099.1	135.4	21,285.6	2,446.4	4,874.3	31,962.4	1,691.3	1,1806.1	15,613.4	110,914.0
%	19.02	0.12	19.19	2.21	4.39	28.82	1.52	10.64	14.08	100.0

In the light of the above analysis for the baseline scenario (continuation of the current situation), which is given by Table 7, it can be concluded that:

- Conclusion-1: Energy demand in Turkey has been increasing at significant rates for ten years, and it is expected to continue at least for the next ten years.

- Conclusion-2: Even all operational plants, construction phase plants, and licensed ones are considered to lack supply is projected after the year 2028. So, there is a significant need for electricity generation investments to satisfy demand. New power plants would otherwise generate the project activity to avoid power shortages in the coming years.

  Conclusion-3: According to the table, fossil fuels will continue to hold a substantial portion of Turkey's energy mix, dominating with 45%of the total generation capacity by 2023. Renewable sources, including hydro, will contribute 55%, showing a significant part of the energy portfolio. However, non-hydro renewables (geothermal, wind, and solar) will represent 26% of the total generation by the end of 2023. This suggests that, while there is a growth in renewable energy investments, the majority of the new capacity additions by

[16] See, https://webim.teias.gov.tr/file/0a1b8b6f-eac9-406c-97c6-abb98220e29d?download

2023 are expected to come from traditional renewable sources like hydro, rather than a major shift towards other renewable technologies.

The combination of the trends above indicates that the continuation of energy generation of Soma WPP would decrease the power amount from new grid-connected thermal plants.

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.

The technical lifetime of the project activity (including wind turbines) is defined as 25 years, and the equipment lifetime exceeds the crediting period for which renewal is requested. Equipment only requires regular maintenance. The baseline scenario identified at the validation of the project activity was the continuation of grid-connected electricity generation from renewable sources. Under this scenario, no investment from the project's proponent or a third party (or parties) has been envisioned later specifically for the project.

Step 1.4 Assessment of validity of the data and parameters.

The emissions reduction calculations are based on two main parameters: The energy produced and the grid emission factor. The latter will be updated as explained in the next paragraph.

The emission factors and values for the calculation of the baseline emissions have been determined for the whole crediting period and parameters not monitored have been changed. Therefore, Step 2 has been applied.

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

This step is applicable since Step 1.4 showed that the current baseline needs to be updated accordingly with the new officially published national emission factor data.

Step 2.1: Update the current baseline

As confirmed in Step 1, during the First Crediting Period, the baseline scenario for the project had been defined as:

"Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants."

The current baseline of the project is the same as the first crediting period and complies with the existing legal framework. No additional laws that impacted the project activity came into force, and the project activity is still in line with the available law and regulations. No additional laws that impacted the project activity came into force, and the project activity is still in line with the available law and regulations. This conforms to the provisions of the latest version of the approved applicable methodology to the project activity, namely: ACM0002 version 21.0, "Grid-connected electricity generation from renewable sources".

Step 2.2: Update the data and parameters

The new national circumstances impact the emission factor of the grid and thus on the project's current baseline emissions. Accordingly, the grid emission factor is updated according to the Turkish Ministry of Energy and Natural Resources publication, which indicates Turkey's National Electric Grid Emission Factor for the year 2020.[17]

So, that were used to calculate estimated emission reductions, the Turkish Ministry of Energy and Natural Resources published that Turkey's National Electric Grid Emission Factor (0.6345 tCO_2/MWh) was used for the third crediting period of this project

B.5. Demonstration of additionality

The additionality was already demonstrated in first validation and is not required for design certification renewal.

B.5.1 Prior Consideration

N/A. According To PDD Template Guide, "only (non-CER) retroactive projects and all projects undergoing Design Changes to include new technologies/measures are required to demonstrate Prior consideration". Since the Project is regular and has no Design Change, it is marked as N/A.

B.5.2 Ongoing Financial Need

[17] See: https://enerji.gov.tr/evced-cevre-ve-iklim-turkiye-ulusal-elektrik-sebekesi-emisyon-faktoru

Investment analysis conducted during the First Crediting Period shows that the project is not economically feasible without GS VER credit income. Also, the sensitivity analysis confirms that the proposed project activity is unlikely to be financially attractive without the revenues from VERs as the IRR result (9.67% for 90 MW) is below the benchmark, which is 11.48%. Consequently, the project activity was deemed as additional.

Furthermore, the agreement signed with the turbine provider (Nordex) established a maintenance regime of the equipment. In line with this agreement, maintenance work is being carried out by Nordex every 6 months a year. This maintenance work of the turbines proves to be a significant financial burden for the Project Activity[18]. Additionally, system usage fees that need to be paid by the Project Activity to the TEİAS is another important factor contributing to the project's expenditure[19]. In addition, in Turkey; transmission fee, forestry fee and public expenses have been rising due to high inflation in Turkey. This leads to increase payment liability for the company. Moreover, there are still loan payments have been made for the project until 2029. Therefore, carbon revenues derived from Gold Standard certification have played an essential role in helping Project Owners pay maintenance works of the equipment and system usage fees.[20]

Moreover, IRR analysis conducted during the previous Crediting Period Renewal process was re-performed again with the carbon revenue added to show that the resulted IRR still stays below benchmark value. Carbon revenue is assumed to be 2.5 - 3.00 USD[21] per tonne. And the income generated by the carbon revenue is calculated with the estimated emission reductions amounts during the previous crediting period. However, actual prices are lower than that, so it is unfeasible for starting verification process for previous periods. The new IRR result (10.27%) with the added carbon revenue shows that the resulting IRR (10.27%) still stays below the project activity's benchmark value

[18] Payments made by the PO to the Nordex for the maintenance work are provided to the VVB for review.
[19] System Usage payments are now provided to the VVB for review.
[20] Declaration of the project owner on this issue has been provided to the VVB.
[21] World Bank, State and Trends of Carbon Pricing 2023 Report Figure 14 on Page 41 of the https://openknowledge.worldbank.org/bitstreams/bdd449bb-c298-4eb7-a794-c80bfe209f4a/download

(11.48%). This is further proof that the project needs the financial support that the carbon certification will enable.

The project activity satisfies all the "Tool for demonstrating and assessing additionality" (version 7.0.0) criteria. Therefore, the Project is additional and still has ongoing financial need.

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)
SDG 13: Climate Action (mandatory)	13.3 by emission reduction	13.3.1
SDG 7: Affordable and clean energy	7.2 by using renewable energy systems	7.2.1
SDG 8: Decent work and economic growth	8.8 by employment and decent work	8.8.2
SDG 6: Clean water and Sanitation	6.3 by avoidance of wastewater discharge to the environment	6.3.1

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

- SDG 7

Firstly, the Project helps accelerate the growth of the wind power industry and stimulates the designation and production of renewable energy technologies in Turkey. Then, other entrepreneurs, irrespective of the sector, are encouraged to invest in wind power generations. It also reduces Turkey's increasing energy deficit and diversifies the electricity generation mix while reducing import dependency, especially natural gas. Importantly, rural development is maintained in the areas around the project site by providing infrastructural investments to these remote villages. The Project is expected to generate 307,500 MWh/annually[22]. The Project contributes to the following indicators

[22] Feasibility Report prepared by Garrad Hassan for this Project Activity

7.2.1 "Renewable energy share in the total final energy consumption" and following target: 7.2 "By 2030, increase the share of renewable energy in the global energy mix substantially".

The project contributes to the following indicators 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

The employment of local people with the necessary technical qualifications for the required post is the priority and enhanced by all project activities during the wind farm operation. As a result, increased job opportunities and project business activities partially eliminated local poverty and unemployment. Construction materials for the foundations, cables and other auxiliary equipment were/are preferentially sourced locally. Moreover, as a contribution of the Project to the region's welfare, the quality of the electricity consumed in the region is increased by local electricity production, which also contributes to decreasing distribution losses.

The Project led to employment opportunities that would not have been possible in the baseline scenario. The Project provides local employment during the operation phase. It contributes to the following target 8.8. and following indicator 8.8.2. Furthermore, all workers are trained on health and safety issues during each monitoring period. Health and safety Training records or certificates will be provided during each monitoring period.

- SDG 6

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.

The project's contribution to SDG is determined via a simple calculation that provides the overall amount of wastewater discharge avoidance with respect to the baseline scenario.

There would be a potential fossil fuel generation activity if this WPP would not come into implementation. In this scenario of electricity generation, there would be a significant wastewater that would be discharged into natural environments. The baseline value for a potential wastewater discharge due to a fossil fuel fired energy generation is calculated as follow:

The related calculations are as follow:

Average Amount of Wastewater Discharged per each GWh Electricity Generation	=	Total Wastewater Discharged by Thermal Power Plants in 2020	÷	Total Electricity Generation in the related year

According to calculation given above, 26.0 m^3 wastewater is discharged the environment due to each GWh electricity produced.

Amount of Avoided Cooling Wastewater Discharge by Project Activity per year	=	Annual Electricity Generation of Project Activity within the MP	x	Average Amount of Wastewater Discharged per each GWh Electricity Generation

Net Amount of Avoided Wastewater Discharge by Project Activity = Amount of Avoided Wastewater Discharge by Project Activity - Amount of Wastewater Produced by Project Activity

The project is expected to avoid of 8,044,390 m^3 wastewater discharge to the environment. It contributes to the target 6.3. and following indicator 6.3.1.

- SDG 13

The annual emission reduction estimated by the Project is 195,108 tonnes of tCO_2/year. While this amount of emissions is mitigated, technology transfer is also realized as benefitting from wind energy.

The Project contributes to improving the environmental situation in the region and 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.

This Project is expected to remove CO: 40.97 tons/y, NMVOC: 3.54 tons/y NOx: 330.49 tons/y.

The emissions of these compounds are calculated as follow:

Emission Amount by Project Activity per (tons)	=	Electricity Generation of Project Activity	x	Emission per GWh (tons/GWh)

This Project is expected to avoid CO_2: 195,108 tCO_2/year.

It contributes to the following target 13.3 and following indicator 13.3.1.

For the emission factors that were used to calculate estimated emission reductions, the publication of the Turkish Ministry of Energy and Natural Resources, which indicates Turkey's National Electric Grid Emission Factor for the year 2020, was used. The publication includes calculated Emission Factor values that are Operating Margin (OM), Growth Based Margin (Build Margin-BM) and Combined Margin (CM) Emission Factors, for the relevant year with the usage of the IPCC's Clean Development Methodology Tool 07-V07.0. For this calculation, information regarding the data set is given below in detail;

- TEİAŞ Turkey's electricity generation-consumption and loss statistics,
- Common prepared report under Turkey's National Greenhouse Gas Inventory Reporting Format. - Common Reporting Format (CRF) tables for electricity generation (1.A.1.a.i) emission values
- Chronological order of power generation plants from TEİAŞ Load Dispatch Department with commissioning dates, plant names, fuel types, installed power values, electricity generation for the calculated year
- Checking off Volunteers from the websites of Gold Standard (GS) and Verified Carbon Standard (VCS) for the ownership status of the carbon reduction certificate and,

- From Clean Development Mechanism (CDM) Tool 009- V3.0, Power plant efficiency figures are used

According to this publication;

- Operating Margin-OM; **0.7279** tCO_2/MWh
- Build Margin-BM; **0.3541** tCO_2/MWh
- Combined Margin-CM (for solar and wind); **0.6345** tCO_2/MWh[23]

Project emissions

The proposed project activity involves the generation of electricity by the development of a wind farm. The generation of electricity does not result in greenhouse gas emissions and therefore is taken as 0 tCO_2/year.

Leakage

LEy is 0, as it is not considered according to ACM0002 (page 21) PEy is 0 because Project is a wind power generation activity (Only for geothermal and hydro project activities, it should be considered according to ACM0002 page 14).

Then: $ER_y = BE_y$

Baseline emissions

Baseline emissions include only CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity, calculated as follows:

$$BE_y = (EGy - EG_{baseline}) \times EF_{grid,CM,y} \qquad (6)$$

Where:

BE_y = Baseline emissions in year y (tCO_2/yr).

EG_y = Electricity supplied by the project activity to the grid (MWh).

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

$EG_{baseline}$= Baseline electricity supplied to the grid in the case of modified or retrofit facilities (MWh). For new power plants this value is taken as zero.
$EF_{grid,CM,y}$ = Combined margin CO_2 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". (tCO_2/MWh) (v.7.0.0).

The project activity is the installation of a new grid-connected renewable power plant so, $EG_{baseline}$ = 0
Then:
$ER_y = BE_y = EG_y * EF_{grid,CM,y}$ = 307,500 MWh/year * 0.6345 tCO2/MWh = 195,108 tCO_2/year
The baseline scenario is identified and described in B.4. Emission reductions due to project activity will be calculated according to "Tool to calculate the emission factor for an electricity system" (Tool) version 7.0.0 as indicated in ACM0002 ver. 21.0.

A brief explanation of this methodology is given in Tool as (page 4):
This methodological tool determines the CO2 emission factor for the displacement of electricity generated by power plants in an electricity system by calculating the "combined margin" emission factor (CM) of the electricity system

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{grid,CM,y}$
Unit	tCO_2/MWh
Description	For the combined margin CO2 emission factor that were used to calculate estimated emission reductions, publication of Turkish Ministry of Energy and Natural Resources which is indicating Turkey's National Electric Grid Emission Factor for the year of 2020 was used.
Source of data	Please see:

	https://enerji.gov.tr//Media/Dizin/EVCED/tr/%C3%87evreVe%C4%B0klim/%C4%B0klimDe%C4%9Fi%C5%9Fikli%C4%9Fi/TUESEmisyonFktr/Belgeler/TUESEF_Bilgi_Formu.pdf
Value(s) applied	0.6345
Choice of data or Measurement methods and procedures	The baseline emissions are the product of electrical energy baseline expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor.
Purpose of data	To show CO_2e reduction in order to monitor the SDG 13 Indicator.
Additional comment	-

B.6.3 Ex ante estimation of SDG Impact

Calculation of the Operating Margin Emission Factor

For OM factor calculation, the Chronological order of power generation plants from TEİAŞ Load Dispatch Department with fuel types, electricity generation for the calculated year were used as input data. By using all of the data which were mentioned above, the Turkish Ministry of Energy and Natural Resources calculated $EF_{grid,OMsimple,y}$[24]. :

➔ $\mathbf{EF_{grid,OMsimple,y} = 0.7279\ (tCO_2/MWh)}$

Calculation of the Build Margin Emission Factor

For BM factor calculation, the Chronological order of power generation plants from TEİAŞ Load Dispatch Department with commissioning dates, plant names, fuel types, installed power values, electricity generation for the calculated year were used as input

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

data. Consequently, the Turkish Ministry of Energy and Natural Resources calculated $EF_{grid,BM,y}$[25].

➔ **$EF_{grid,BM,y}$ = 0.3541 tCO_2/MWh**

Calculating of the Combined Margin Emission Factor

The combined margin emission factor is calculated by using weighted average CM as per the tool formula below:

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

$EF_{grid,BM,y}$ = Build margin CO_2 emission factor in year y (tCO_2/MWh)

$EF_{grid,OM,y}$ = Operating margin CO_2 emission factor in year y (tCO_2/MWh)

w_{OM} = Weighting of operating margin emissions factor (%)

w_{BM} = Weighting of build margin emissions factor (%)

According to the Tool for wind power generation project activities;

w_{OM} = 0.75 and w_{BM} = 0.25

Then:

***$EF_{grid,CM,y}$* = 0.7279 tCO_2/MWh * 0.75 + 0.3541 tCO_2/MWh * 0.25 = 0.6345 tCO_2/MWh**

➔ ***$EF_{grid,CM,y}$*= 0.6345 tCO_2/MWh**

Emission reductions are calculated as follows:

$ERy = BEy - PEy - Ley$ **(5)**

Where:

ER_y = Emission reductions in year y (t CO_2/yr).

BE_y = Baseline emissions in year y (t CO_2/yr).

PE_y = Project emissions in year y (t CO_2/yr).

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

LE_y = Leakage emissions in year y (t CO_2/yr).

Baseline emissions

Baseline emissions include only CO2 emissions from electricity generation in fossil fuel-fired power plants that are displaced due to the project activity, calculated as follows:

$$BEy = (EG_y - EG_{baseline}) \times EF_{grid,CM,y} \quad \textbf{(6)}$$

Where:

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

EG_y = Electricity supplied by the project activity to the grid (MWh).

$EG_{baseline}$ = Baseline electricity supplied to the grid in the case of modified or retrofit facilities (MWh). For new power plants, this value is taken as zero.

$EF_{grid,CM,y}$ = Combined margin CO2 emission factor for grid-connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system". (tCO2/MWh) (v.7.0.0).

Leakage

LE_y is 0, as it is not considered according to ACM0002 (page 21) PE_y is 0 because Project is a wind power generation activity (Only for geothermal and hydro project activities, it should be considered according to ACM0002 page 14).

Then: $ER_y = BE_y$

Emission Reduction

The project activity is the installation of a new grid-connected renewable power plant so, $EG_{baseline} = 0$

Then:

$$\textbf{ER}_y = \textbf{BE}_y = \textbf{EG}_y * \textbf{EF}_{grid,CM,y} = \textbf{307,500 MWh/year * 0.6345 tCO}_2\textbf{/MWh = 195,108 tCO}_2\textbf{/year}$$

Air Quality:

This project is expected to remove of CO: 40.97 tons/y, NMVOC: 3.54 tons/y, NO_x: 330.49 tons/y.

SDG 7 Affordable and Clean Energy:

The project is expected to generate 307,500 MWh/annually.

SDG 8 Decent Work and Economic Growth:

The project provides at least 39 employment.

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

SDG 13 Climate Action

The Project's third crediting period is between 13/08/2024 – 12/08/2031.

CO2 Emissions

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	75,370	0	75,370
2025	195,108	0	195,108
2026	195,108	0	195,108
2027	195,108	0	195,108
2028	195,108	0	195,108
2029	195,108	0	195,108
2030	195,108	0	195,108
01/01/2031 – 12/08/2031	119,738	0	119,738
Total number of crediting years		**7**	
Annual average over the crediting period	195,108	0	195,108

CO Emissions

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	15.83	0	15.83
2025	40.97	0	40.97
2026	40.97	0	40.97

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
2027	40.97	0	40.97
2028	40.97	0	40.97
2029	40.97	0	40.97
2030	40.97	0	40.97
01/01/2031 – 12/08/2031	25.14	0	25.14
Total number of crediting years		**7**	
Annual average over the crediting period	40.97	0	40.97

NMVOC Emissions

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	1.37	0	1.37
2025	3.54	0	3.54
2026	3.54	0	3.54
2027	3.54	0	3.54
2028	3.54	0	3.54
2029	3.54	0	3.54
2030	3.54	0	3.54
01/01/2031 – 12/08/2031	2.17	0	2.17
Total number of crediting years		**7**	
Annual average over the crediting period	3.54	0	3.54

NO_x Emissions

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	127.67	0	127.67
2025	330.49	0	330.49

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
2026	330.49	0	330.49
2027	330.49	0	330.49
2028	330.49	0	330.49
2029	330.49	0	330.49
2030	330.49	0	330.49
01/01/2031 – 12/08/2031	202.82	0	202.82
Total number of crediting years		**7**	
Annual average over the crediting period	330.49	0	330.49

SDG 7 Affordable and Clean Energy

The baseline for the Project is no project, thus leading to generation in the relevant grid dominated by fossil fuel. The clean energy generated by the Project is calculated based on the amount of electricity generated by the Project per annum.

The Project is expected to generate 307,500 MWh of clean energy per annum.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	0	118,788	118,788
2025	0	307,500	307,500
2026	0	307,500	307,500
2027	0	307,500	307,500
2028	0	307,500	307,500
2029	0	307,500	307,500
2030	0	307,500	307,500
01/01/2031 – 12/08/2031	0	189,555	189,555
Total number of crediting years		**7**	
Annual average over the crediting period	0	307,500	307,500

SDG 8 Decent Work and Economic Growth

The Project will lead to employment opportunities that would not have been possible in the baseline scenario. The Project provides local employment. Also, project activity improves the quality of employment by giving Health and safety training to the employee. Thus, a series of Health and safety training will be organised within Soma WPP. In the below table, it is possible to see the number of employees employed for this Project Activity. Health and Safety training will be provided annually for all employees.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	0	39	39
2025	0	39	39
2026	0	39	39
2027	0	39	39
2028	0	39	39
2029	0	39	39
2030	0	39	39
01/01/2031 – 12/08/2031	0	39	39
Total number of crediting years		**7**	
Annual average over the crediting period	0	39	39

Trainings

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	0	1	1
2025	0	1	1
2026	0	1	1
2027	0	1	1
2028	0	1	1
2029	0	1	1
2030	0	1	1

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
01/01/2031 – 12/08/2031	0	1	1
Total number of crediting years		**7**	
Annual average over the crediting period	0	1	1

SDG 8 Decent Work and Economic Growth

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
13/08/2024 – 31/12/2024	0	1	1
2025	0	1	1
2026	0	1	1
2027	0	1	1
2028	0	1	1
2029	0	1	1
2030	0	1	1
01/01/2031 – 12/08/2031	0	1	1
Total number of crediting years		**7**	
Annual average over the crediting period	0	1	1

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 13 Climate Action

Target: 13.3

Indicator: 13.3.1

SDG 13

Data / Parameter	**ER_y**
Unit	tons of CO_2e/year
Description	Baseline emissions correspond to emission reductions and are calculated as the net electricity generated by the project activity, multiplied with the 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 considering the EPIAS records for the net electricity generated and the emission factor for the grid, 0.6345 tCO2/MWh, which is calculated and published by The Ministry of Energy and Natural Resources of Turkey[26] As per the monitoring plan sheet of registered CM Excel, the results shall be obtained from the Actual ER excel file during the verification.
Value(s) applied	195,108
Measurement methods and procedures	The amount of annual net electricity generation calculated by monthly settlement notifications of EPIAS based on monthly meter readings will be used to calculate estimated CO2 emission reduction by project activity.
Monitoring frequency	Annually
QA/QC procedures	Calculation of amount of emission reduction will be calculated on an excel document and provided in each monitoring period
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

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Additional comment	-

SDG 7 Affordable and Clean Energy

Target: 7.2

Indicator: 7.2.1

Data / Parameter	$EG_{PJ,y}$
Unit	MWh/yr
Description	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
Source of data	Monthly electricity meter readings
Value(s) applied	307,500 MWh/y
Measurement methods and procedures	• Regarding the electricity meters: four meters are placed (two main and two reserve) at the Soma WPP, which meters the electricity transferred to TEİAŞ substation. TEIAS seals these meters, and intervention by the project proponent is not possible. The fact that four meters are installed in a redundant manner keeps the uncertainty level of the only parameter for baseline calculation low. This parameter's high data quality is not only in the interest of emission reduction monitoring but paramount for the business relationship between the plant operator and the electricity buyers. Measured hourly and readings monthly. Monthly settlement notifications of EPIAS consist hourly electricity production and withdrawn from the grid. EPİAŞ reading will be used as a base data on the other hand; electricity meter reading will be used to crosscheck the accuracy of the data. Authenticity will be increased by the aid of data crosschecks between EPİAŞ data and electricity meter readings. This means that the main source is the EPIAS data. 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. Since the meters are reading electricity supplied to the system and withdrawn from the system separately, the net electricity amount provided to the grid is calculated by electricity supplied

minus electricity withdrawn, which is taken from monthly settlement notifications. Due to the fact that only the registered capacity's electricity generation amount will be relevant for this new Crediting Period, the total electricity generation by the registered capacity (for 90MW) will be calculated with the help of the SCADA system. SCADA system employed in the Project Activity provides the monthly electricity generation values for each ten additional turbines. Electricity generation for registered capacity will be calculated by deducting the net electricity generation values obtained from the SCADA system for the last ten turbines from the total generation data received from the EPIAS recordings. The SCADA screenshots showing the monthly generation amount of the latest added ten turbines will be provided for monitoring. TEIAS meter readings will be used for cross-check.
The above-described measurement method follows Article 81 of the official regulation "Electricity Market Balancing And Settlement Regulation."[27]

Name	Serial Number	Brand – Model	Date Of Calibration	Accuracy Class	Year of Manufacture
Main Meter (Soma II) **after 15/12/2019**	8923691	EMH – LZQJ-XC	15/10/2019 19/09/2021 12/11/2023	0.2s	2019
Backup Meter (Soma II) **after 10/11/2019**	8923692	EMH – LZQJ-XC	14/10/2019 19/09/2021 12/11/2023	0.2s	2019
Main Meter (Soma I) **after 15/12/2019**	8923689	EMH– LZQJ-XC	15/10/2019 19/09/2021 12/11/2023	0.2s	2019
Backup Meter (Soma I) **after 10/11/2019**	8923690	EMH– LZQJ-XC	15/10/2019 19/09/2021 12/11/2023	0.2s	2019

Monitoring frequency	Continuous measurement and Monthly Recording
QA/QC procedures	According to Article 2 of the Communiqué of Meters in Electricity Sector[28]: '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, the Ministry of Trade and Industry (Ministry) is

[27] See page 63, https://www.epdk.gov.tr/Detay/DownloadDocument?id=daAg8BGM+14=
[28] See, https://www.epdk.gov.tr/Detay/DownloadDocument?id=+6B2PMv4N4A=

	responsible for controlling and calibrating the meters. Also, according to Article 11 of this Communiqué, meters shall be in the class of 0.2s, which means the error interval for measuring is in the acceptable range according to rules. Annex-1 Section A of the "Electricity, Water and Gas Meters Inspection Regulation" of Ministry states that "The periodic inspection period of active electricity energy meters are done every 10 years." Therefore, periodic calibration of the meters will be done every 10 years. Also, according to Article 67 (page 20) of this regulation, the calibration shall be done in calibration stations that have been tested and approved by the Ministry of Trade and Industry. Article 10 d) of Communiqué requires the meters shall be three phases four-wire and Article 64 of Regulation clearly states how calibration shall be performed for this kind of meters. As above mentioned, the data acquisition and management and quality assurance procedures that are anyway in place, no additional procedures have to be established for the monitoring plan.
Purpose of data	To exhibit renewable electricity generation performance of the plant
Additional comment	Plant Manager will be responsible for monitoring data.

SDG 8 Decent Work and Economic Growth

Target: 8.8

Indicator: 8.8.2

Data / Parameter	**Quantitative employment and income generation**
Unit	-
Description	Number of employment provided
Source of data	SGK (Social Security Institution) Records of the company
Value(s) applied	The company will provide job opportunities for at least 39 employee.

Measurement methods and procedures	Social Security System (SGK) records
Monitoring frequency	Each monitoring period.
QA/QC procedures	SGK records of employees are provided during each monitoring period
Purpose of data	Employment and decent work for all
Additional comment	-

SDG 8 Decent Work and Economic Growth

Target: 8.8

Indicator: 8.8.2

Data / Parameter	**Quality of employment**
Unit	-
Description	Quality of employment
Source of data	Health & Safety trainings
Value(s) applied	HSE trainings will be held for all employees (including local employees) at the plant.
Measurement methods and procedures	Training attendance list and/or certificates for HSE trainings.
Monitoring frequency	Annually (Once at the end of each monitoring period).
QA/QC procedures	Attendance records or training certificates are provided during each monitoring period. Safety measures and equipment will be shown to VVB during each verification.
Purpose of data	To exhibit employment performance of the plant
Additional comment	-

SDG 8 Decent Work and Economic Growth

Target: 8.8

Indicator: 8.8.2

Data / Parameter	**Livelihood of the poor**
Unit	-
Description	Making various contributions to the poorest people in the vicinity of the project area
Source of data	Donation Statements by Project Proponent
Value(s) applied	The project makes contributions to the poorest people in the vicinity of the project area.
Measurement methods and procedures	Statements by PP or receipts of donations.
Monitoring frequency	Once at each monitoring period
QA/QC procedures	Donation records or statements will be provided during each monitoring period. Donation records or statements will be shown to VVB during each verification.
Purpose of data	To exhibit employment performance of the plant
Additional comment	-

SDG 6 Clean water and Sanitation

Target: 6.3

Indicator: 6.3.1

Data / Parameter	**Water Quality and Quantity**
Unit	m^3/year
Description	Avoidance wastewater discharge to the environment
Source of data	EPİAŞ based on monthly meter readings
Value(s) applied	Avoidance of around 8,044,390 m^3 wastewater discharge to the environment per year.
Measurement methods and procedures	Amount of annual net electricity generation, which is calculated by monthly settlement notifications of EPİAŞ based on monthly meter readings, is used to calculate estimated amount of avoided wastewater discharge by project activity.

Monitoring frequency	Annually
QA/QC procedures	Amount of annual net electricity generation, which is calculated by monthly settlement notifications of EPİAŞ based on monthly meter readings.
Purpose of data	Avoidance wastewater discharge to the environment
Additional comment	-

B.7.2 Sampling plan

N/A

B.7.3 Other elements of monitoring plan

The Monitoring Plan (MP) builds on the baseline scenario described in Project Design Document and is consistent with the applied methodology ACM0002, "Consolidated baseline methodology for grid-connected electricity generation from renewable sources, v.21.0.0".

The MP is implemented by Bilgin Güc Santralleri Enerji Üretim A.S., who is also responsible for operating the wind power plant. The monitoring plan is implemented based on the detailed monitoring manual that is prepared and updated for the use of Bilgin Güc Santralleri Enerji Üretim A.S.

The Monitoring Plan for the project includes the net electricity generation by the project activity in the scope of monitoring SDG 7. The electricity generated is metered by TEİAŞ by two meters placed on the switchgear station where the plant is connected to the national grid. Those meters provide official data, which is read and recorded monthly by TEİAŞ officers and is co-signed into a protocol between the project owner and TEİAŞ. The maintenance and calibration of the meters are also done by TEİAŞ, which ensures the accuracy and quality of the measurements. In the scope of monitoring SDG 13, the monthly electricity generation values will be monitored during monitoring periods. The employment records and training provided to the employees will be monitored during the monitoring period in the scope of monitoring SDG 8. Also, the positive contributions to the local community to increase the livelihood of the poor will be monitored. For SDG 6, the electricity generation value and the domestic wastewater disposal procedures will be monitored during the monitoring period.

The following shows the organizational structure for the Soma Wind Power Plant Project (Figure 8).

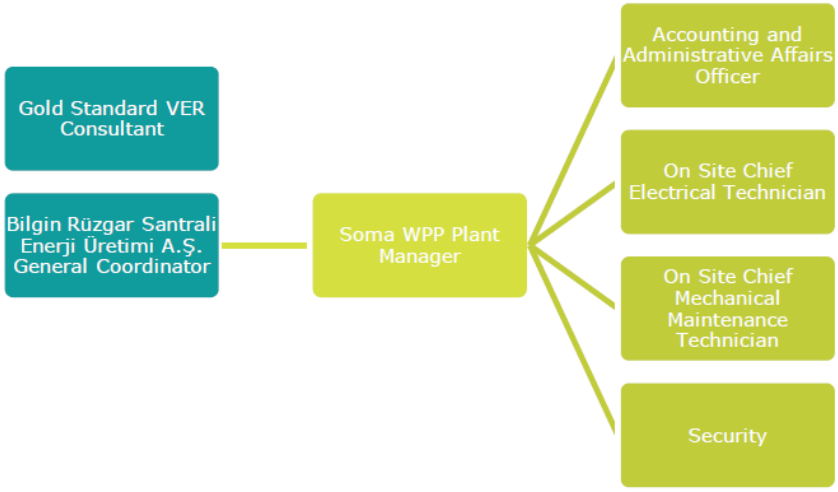

Figure 6 Organizational Structure for Soma WPP

The role of the staff that will be involved in the implementation of the monitoring plan is given in the following table (Table 12).

Table 9 Table indicating the role and responsibilities of the staff who will be involved in the implementation of the monitoring plan.

Who	Role
General Coordinator	Data entry in an Excel workbook. Responsible for QA/QC, including archiving. Requests calibration and maintenance certificates,
Plant Manager	Electricity meter(s) reading Attends monthly meter reading with TEIAS representative
GS VER Consultant	Prepares emission report and accompanies verification(s). Quality check of the monitoring data reported in the monitoring workbook
Grid operator	Maintenance and calibration of main and control meters. Electricity meter(s) reading.

QA/QC Procedures

QA/QC of meters and back up meters: In accordance with the Article 9 (b) of the "Inspection of Measurement and Measuring Instruments Regulation" which was published in Turkish Official Gazette dated 24/7/1994 and No.22000, the inspection of meters needs to be done in every 10 years. Since the project has commenced the operation in August 2010, the inspection of meters was done in 2020.

However, in addition to this statutory requirement, an authorized person from the grid operator (TEİAŞ) visits the project site for the monthly inspection in order to check the accuracy of the meters and back up meters. This is done in compliance with the EPIAS standards.

For internal records, the project operator keeps the originally signed copy of the meter protocols at the head office. Furthermore, electronic copies are kept (as well as backed up) in order to restore the data in case it is corrupted or destroyed. For this purpose, hard and soft copies of meter protocols and EPIAS data are also kept by the plant manager.

Monitoring Report

The monitoring of the project will be conducted on an annual basis.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

The project activity begins in 20/08/2009, the start date of the construction. This is a regular project.

C.1.2 Expected operational lifetime of project

The expected lifetime of the Soma WPP is 25 years 0 months[29].

[29] The operational lifetime of the Soma WPP is determined using the methodological Tool 10 Tool to determine the remaining lifetime of equipment. https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf. Also, the technical brochure of the turbines used states that "the wind turbine should produce high yields over a

C.2. Crediting period of project

C.2.1 Start date of crediting period

Start date of the third crediting period: 13/08/2024[30]

End date of the third crediting period: 12/08/2031

C.2.2 Total length of crediting period

7 years

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle 3. Community Health, Safety and Working Conditions	The project will safeguard public from any potential electricity related risks, the site is safeguarded and access to project site is only possible under the supervision of the security team. In addition to all the turbines are fenced and the fences are grounded to avoid any third party injury or accident related to high voltage. Similarly the immediate switch gear area and the main control chamber and substation is also fenced and guarded.
Principle 6.1 Labour Rights	The company will provide job opportunities to local people. SGK records of employees will be provided during each monitoring period. Moreover, health and safety training will be provided to all of the employees

service life of at least 20 years" (Page 17 of N90 2500 Turbine technical Specifications Brochure) which was provided to the VVB for review

[30] Start date of the first crediting period: 13/08/2010; End date of the first crediting period: 12/08/2017. Start date of the second crediting period: 13/08/2017; End date of the first crediting period: 12/08/2024.

Principle 9.4 Release of pollutants	Wastewater generated will be collected in septic tanks and transported to the Municipality's wastewater treatment plant. In this way, discharge of wastewater will not be allowed.
Principle 9.4 Release of pollutants	Waste oil will be vacuumed by vacuum trucks regularly. In this way, discharge of plant-sourced waste oil will not be allowed.
Principle 9.4 Release of pollutants	Garbage bins' photos will be provided for solid household waste. In this way, solid waste disposal will not be allowed.
Principle 9.4 Release of pollutants	To guarantee no negative impact of noise of the project activity to the habitants' noise resulted from the turbines' rotations will be monitored. Local People living in vicinity of the project site will be interviewed for the noise resulted from the turbines' rotations once during each Monitoring Period.
Principle 9.7 Harvesting of Forests	To guarantee the project has no effect on the soil condition as indicated in the Environmental Impact Statement trees will be planted. Photographs and receipts/invoices for the saplings planted will be provided only once at the first verification of the 3rd Crediting Period.
Principle 9.10 High Conservation Value Areas and Critical Habitats	The Project is not located in a high conservation value area or within critical natural habitats or critical biodiversity areas or sites identified. Therefore, the project activity does not affect or alter ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified. However, bird nests and carcasses on the project site will be observed by appointed personnel periodically.

Principle 3.3.1 Community Health, Safety and Working Conditions

Data / Parameter	**Public Health and Safety**
Unit	-
Description	Taking precautions to protect public from any potential high voltage hazard
Source of data	Project Proponent
Value(s) applied	-

Measurement methods and procedures	Photographic evidences of the precautions taken
Monitoring frequency	Annually
QA/QC procedures	The project safeguards public from any potential electricity related risks, the site is safeguarded and access to project site is only possible under the supervision of the security team. In addition to all the turbines are fenced and the fences are grounded to avoid any third party injury or accident related to high voltage. Similarly the immediate switch gear area and the main control chamber and substation is also fenced and guarded.
Purpose of data	Precautions to ensure the public health and safety
Additional comment	The project owner takes all necessary precautions in order to safeguard public from any potential electricity related risks.

Principle 9.4 Release of pollutants

Data / Parameter	**Water quality and quantity**
Unit	-
Description	Disposal of wastewater
Source of data	Records of transfer of wastewater by sewage truck or statement of the wastewater treatment plant
Value(s) applied	Wastewater transfer records
Measurement methods and procedures	Wastewater generated is collected in tanks/containers, and this water is transported and disposed of by the local municipality.
Monitoring frequency	At least one wastewater disposal record in one monitoring period.
QA/QC procedures	According to Waste Management Regulation, waste water disposal must be done. Records are kept by the plant.
Purpose of data	Avoidance of wastewater discharge to the environment
Additional comment	-

Principle 9.4 Release of pollutants

Data / Parameter	**Solid waste**
Unit	-
Description	a) Solid household waste b) Waste oil etc. (gearbox oil waste, oil filters etc.)
Source of data	a) Garbage bins' photos b) Removal invoices.
Value(s) applied	a) Garbage bins' photos b) Removal invoices will be provided.
Measurement methods and procedures	a) Solid household waste: By visual inspection. b) Waste oil: By checking invoices.
Monitoring frequency	a) Each monitoring period b) At least one waste oil (gearbox oil waste, oil filters etc.) disposal record in a one monitoring period.
QA/QC procedures	According to Waste Management Regulation, waste water disposal must be done. Records are kept by the plant.
Purpose of data	Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.
Additional comment	-

Principle 9.4 Release of pollutants

Data / Parameter	**Noise Pollution**
Unit	-
Description	Noise resulted from the turbines’ rotations
Source of data	Project Owner
Value(s) applied	-

Measurement methods and procedures	Local People living in vicinity of the project site will be interviewed for the noise resulted from the turbines' rotations.
Monitoring frequency	Once Each Monitoring Period during this Crediting Period
QA/QC procedures	Interviews conducted with the local people
Purpose of data	To guarantee no negative impact of noise of the project activity to the habitants
Additional comment	-

Principle 9.7 Harvesting of Forests

Data / Parameter	**Soil Condition**
Unit	-
Description	Planting of trees to remediate soil movements as a result of the construction of the project
Source of data	Project Proponent
Value(s) applied	100
Measurement methods and procedures	Count number of trees planted and photograph any required remediation
Monitoring frequency	Only Once at the first verification of the 3rd Crediting Period
QA/QC procedures	Photographs and receipts/invoices for the saplings planted.
Purpose of data	To guarantee the project has no effect on the soil condition as indicated in the Environmental Impact Statement
Additional comment	-

Principle 9.10 Harvesting of Forests

Data / Parameter	**Biodiversity**
Unit	-

Description	Bird strikes to the turbines
Source of data	Statement from appointed personnel who is constantly on the site.
Value(s) applied	Bird strikes to the turbines will be monitored.
Measurement methods and procedures	Interviews with local people will be conducted at each monitoring period. The appointed employee will complete an assessment form regarding the bird deaths around the site to record the monitoring outcome.
Monitoring frequency	Annually
QA/QC procedures	The appointed personnel of PP carry out monitoring.
Purpose of data	To prove that the project activity does not affect or alter ecosystems, critical habitats, landscapes, key biodiversity areas or sites.
Additional comment	-

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?	Gold Standard Gender Policy (https://globalgoals.goldstandard.org/101-1-g-gold-standard-gender-policy/), p. 10 "Foundational gender-sensitive requirement - This strengthens Gold Standard's 'do no harm' approach and addresses safeguards to prevent or mitigate adverse impacts on women or men and girls and boys. Such action is mandatory for all projects seeking Gold Standard certification and includes compliance with the gender 'do no harm' safeguards, gender gap analysis and gender-sensitive stakeholder consultations." The Project is a renewable energy project and not gender-sensitive Project. The Project does not impact women or men negatively.

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 discrimination based on gender, race, religion, sexual orientation or any other basis. Turkey signed the convention of the 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 other basis is allowed.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	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.
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No. At the Stakeholder Consultation, women are free to say anything regarding the Project. Their opinions and comments are also considered while evaluating the Project 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

Two separate Local Stakeholder Consultation Meetings in line with Gold Standard Requirements were held on 10 November 2008 to develop the Project as a Gold Standard VER project. The Gold Standard Organization process for VER includes two round stakeholder process. The second part of the Consultation is the Stakeholder Feedback Round held from 09/02/2009 till 18/09/2009. The participants were provided information about the Project's ongoing activities and let to provide their comments. The comments from the participants were positive for Soma WPP. During the first

crediting period, general concerns of the participants were regarding the employment opportunities that project activity would enable, the noise effect of the turbines, radiation effect of the turbines, particulate matter emissions during construction, the effects of turbines on the fauna and biodiversity and the grazing area available for the animals. The project proponent ensured that the project activity enables more employment opportunities in the area, and the employees are selected from the local people.

Regarding the noise effect of the turbines, the project proponent ensured that the noise level studies conducted in accordance with the applicable laws and requirements and the noise of the turbines in operation that is heard from the closest settlement to the nearest turbine stay under the threshold value given in the relevant law and requirement. Regarding grazing areas, the project proponent ensured that separate fences surround each turbine to avoid closing all the space, and thus, the animals still can graze between the turbines. Turbines give no harm to the animals. In terms of particulate matter emissions during construction, the workers undertook necessary precautions like watering the roads, careful loading and unloading the material and covering the trucks with hammocks. In terms of the turbines' radiation effect, the project proponent clarified the concerns by explaining that the sources of low electromagnetic radiation are the electrical generator and medium voltage transformer in the wind power plant. The wiring system is underground between the turbines to keep the exposure minimal. The electromagnetic field of a wind turbine is weak and effective only at short distances and at the height of 80ms.

For this reason, no significant exposure is possible at ground level or away from the turbine. In terms of fauna and biodiversity, the project proponent explained that as part of the environmental process, the region's flora and fauna are studied and reported. No endemic species have been determined. As the habitats are continuous and complimentary through the area, no adverse impacts are expected on terrestrial fauna. The effect on migrating birds is expected to be negligible as the vegetation on top of the hills is rare, and the birds generally prefer the area around for breeding.

Furthermore, Project Documents and Feedback forms were enabled for the stakeholders to access from 09/02/2009 till 18/09/2009, and within this period, no comments were received. A grievance mechanism was established with the support of the Mukhtar for

stakeholders to forward their requests or concerns regarding the project activities. In Turkey, mukhtars are the most relevant persons in the villages for establishing a grievance mechanism. Their offices are some of the few places the locals visit very often for different purposes, such as requesting some official letters. Whenever a problem arises in the village as the first thing, locals go to the mukhtar's office to express their concerns, situations to find solutions and reflect on their issues with the Mukhtar. It has been decided that the Mukhtar also takes an active role in monitoring the participants' requests so that a grievance mechanism situating the Mukhtar at the centre was established for this project activity. Mukhtar was provided all the contact information of the responsible persons for the project activity. Whenever a complaint arises from the local people or Mukhtar himself arises a concern regarding the project activity, he can directly contact the relevant responsible persons.

For the first CP renewal, no other meeting for this project was conducted apart from the remote site visit due to the travel restrictions imposed due to the COVID-19 pandemic. However, an announcement poster, which indicates that the project will continue its operation, was hung in the village where everyone could see it. Also, in the poster, local stakeholders were informed that a Continuous Input Process Book was provided to Muhtar of Göktas village so that they could inform their complaints and feedback for 30 days regarding the project if they have. Also, on that poster, they can reach the person responsible for the project's contact information to inform their complaints directly on the phone. During this time (input/grievance process for two months), no feedback or complaints were reported on the Continuous Input Process Book (logbook), which was provided to Muhtar of Göktas village[31].

During the online site visit conducted with VVB, the local people were interviewed, and the general outcome of the interviews was positive verbally. Opinions of the stakeholders have been taken in the online site visit, and no complaints or problems were recorded regarding the Soma WPP. So, no negative feedback has been received from Soma WPP personnel or local people regarding this Project. Moreover, when the

[31] Logbook and the muhtar’s statement regarding logbook were provided to the VVB.

outcome was evaluated in general, it was seen that the Project had a positive effect on the stakeholders. A stakeholder feedback round was held between 11/01/2022 and 11/03/2022. Contact information of the Project Owner was shared with the stakeholders when any negative situation arose regarding the Project Activity. Although the general outcome of the discussions with the local people was positive during the remote site visit, the Project Owner agreed to regularly follow up with the local people whether they have any problems or requests. With the Grievance Mechanism established, local stakeholders have a chance to submit their requests and complaints to the Project Owner about the project. At the end of the SFR period, no feedback or complaints were received.

For crediting period renewal process, remote audit was held on 11/01/2024. As same with the onsite audit; although the general outcome of the discussions with the local people was positive during the remote site visit, the Project Owner agreed to regularly follow up with the local people whether they have any problems or requests. With the Grievance Mechanism established, local stakeholders will have a chance to submit their requests and complaints to the Project Owner about the project. At the end of the SFR period, no feedback or complaints were received.

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)	• Continuous Input Process Book was provided to Muhtar of Göktas Village. Muhtar is the representative of the village and the most appropriate person to handle the book and complaints from the village. • Other than the mukhtar, the locals can directly call or reach (go to his office) Mr Koray Özulukale regarding the problems related to the project activity. Koray Özulukale is the responsible person from the project activity who is constantly on site.
GS Contact (mandatory)	help@goldstandard.org

Other (Responsible person at the Project Site)	Koray Özulukale E-Mail: korayozulukale@gmail.com Phone: +236 612 05 55

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.

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.		
1. Turkey is a party to Universal Declaration of Human Rights: http://ua.mfa.gov.tr/detay.aspx?2634 *Turkey is a party to the Universal Declaration of Human Rights, therefore does not violate these rights and it's not a matter of discussion for Turkey. Therefore, the project developer and the project do respect nationally and internationally proclaimed human rights and is not complicit in violence or human rights abuses of any kind. The project respects internationally proclaimed human rights including dignity, cultural property.* *2 - 3. Turkey is a party to Universal Declaration of Human Rights: http://ua.mfa.gov.tr/detay.aspx?2634* *Therefore, the project will not discriminate with regards to participation and inclusion.*		
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

Briefly describe below how the project incorporates a human rights-based approach.
For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

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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.

1. The project does not adversely affect men and women in marginalized or vulnerable communities because it creates stable jobs and incomes for local men and women. The project does not reduce or put at risk women's access to or control of resources, entitlements and benefits because the project owner comply with the Labor Code. In the main office of the project owner company there are women employees as well. Therefore, Project contributes to recognition of women rights implicitly. Turkey is also party to Convention on Discrimination since 1967 to prevent any form of discrimination; http://ua.mfa.gov.tr/files.ashx?872

2. The project owner complies with regulations of Turkey's law. Therefore, the project will not discriminate with regards to participation. Men and women are paid equally for work of equal value.

3. Turkey has ratified ILO convention 100, 111, 122 and 142, which provides gender equality and promotes women's employment http://www.ilo.org/ankara/areas-of-work/equality-discrimination/lang--tr/index.htm

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 ☒ 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.

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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.

1. The project leads to safe working condition and improvement in health as it will replace coal as fuel with wind which is clean and safe. Further, periodic Health and safety trainings are being implemented for all employees to ensure prevention of any unsafe working condition. Turkey has ratified ILO convention 155 and about work safety and precautions https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/WCMS_356966/lang--en/index.htm.

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
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.

1. Health and Safety trainings are provided for all employees regularly.

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.

According to the approved exemption of environmental impact assessment, the project area does not include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture.		
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 for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ 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.		
N/A.		
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.		
For the project activity, no resettlement is required.		
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 agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
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.		
N/A		
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.		
There is no need for expropriation. Land acquisition was done according to the Turkish Expropriation Laws and Regulations.		
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.

N/A.

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.

N/A.

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? - 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?	☐ YES ☐ NO ☒ NA
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.

N/A.

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.

The Project does not involve any kind of corruption.
Turkey is a party to United Nation Convention against Corruption since 2006; http://ua.mfa.gov.tr/detay.aspx?15042
Moreover, Turkey has ratified several conventions on bribery and corruption including OECD and UN conventions
http://www.masak.gov.tr/en/LaunderingProceedsofCrime/Chronology.htm .

The Project owner has not any negative track record related to corruption or any such activity whatsoever.

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, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
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.

Project owner protects labours rights of all employees within this company. Workers might have occupational accidents during construction and operation phase. According to project developer, during construction and operational phase of the project "Health and Occupational Safety Regulation" will be followed. Regulation could be found under this link too:
http://www.mevzuat.gov.tr/MevzuatMetin/1.5.6331.pdf

1. Turkey has ratified ILO 87 and 98 conventions. All employee are recruited according to the national legislations. Turkey is a party of IPEC (http://www.ilo.org/ipec/programme/lang--en/index.htm and http://www.ilo.org/ipec/Regionsandcountries/lang--en/index.htm) since 1992 and ratified ILO convention 138 and 182 (http://www.ilo.org/public/turkish/region/eurpro/ankara/about/sozlesmeler.htm). Turkey has ratified ILO convention 155 and about work safety and precautions.

2. In accordance with the Labour Code of Turkey, workers should have the right to establish and join the organization that they consider necessary.

3. The project owner follows regulations of Labour Code of Turkey. All employee are provided with labour contracts, medical insurance and regular health-check as well as social insurance and unemployment insurance.

4. Trained technicians are involved in construction and operation and maintenance of plants. Therefore, no child labour is involved.

5. Necessary health and safety measures will be taken during operation phase according the regulation of health and safety reguirements in construction Works (http://www.resmigazete.gov.tr/eskiler/2013/10/20131005-2.htm). Additionally, relevant staff will be trained to be able to work with high voltages, high heights and heavy machineries.

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[32] 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 consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association*	☐ YES ☐ POTENTIALLY ☒ NO
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

[32] 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.

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.

N/A.

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.

The project activity involves electricity generation from local and renewable sources. Since Turkey is dependent on import fuel (mainly natural gas and coal), project will not generate any risk but contribute to local economy. Project Activity provides job opportunities for local people. By this way, it contributes improvement of economy.

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.

N/A.

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.

The Project will reduce the emission of 195,108 tCO_2e/year compared to the Baseline Scenario as it replaces electricity generated from fossil fuel fired power plants with zero emissions electricity from the wind power plant. On the contrary, it helps to reduce GHG emissions by producing green energy.

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.

N/A.

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.

The Project's purpose is to supply clean energy from the wind power plant to the national grid. Plant sometimes can use energy from local grid in the absence of wind. However, this amount is really small when compared to its production of green energy amount.

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.

N/A.

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.

According to the PIF, there is no aqua production and protected aquifers close to the plant. No lakes or streams are found in the vicinity of the project area.

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.

N/A.

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.

The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle 4.2.2 Erosion and/or Water Body Instability): There is no interruption to the hydrological systems in a WPP.

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.

N/A.

P.9 |ENVIRONMENT, ECOLOGY AND LAND USE

P.9.1 |LANDSCAPE MODIFICATION AND SOIL

P.9.1.1 | - P.9.1.3 |	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.		
The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle Landscape Modification and Soil): Only potential impact to soil would be observed due to construction activities of the Project, and these negligible impacts are not permanent. Furthermore, there is an access road to the project area so that there is no problem in accessing the area. The necessary attention to be paid to the speed limits of the trucks and the material inside the trucks will be covered. Trucks to be loaded in line with the axle load and will not be overloaded, the top 10% of the material to be moisturized.		
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.		
N/A.		
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.		
The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle Vulnerability to Natural Disaster): The project area is not a place to specific extreme climatic conditions and harmful natural events such as earthquake.		
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.		
N/A.		
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.		
The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle 4.3.3 Genetic Resources): There is no relevance to GMO of a Wind Power Plant.		
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.		
N/A.		
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.		
During this Crediting Period the Project Activity will produce domestic waste due to employee but it will be collected appropriately. Also, waste oil will be generated due to operation of the wind turbines and they will also be collected and disposed following related regulations and precautions defined by the laws and the Municipality. Moreover, wastewater generated by the employee use will be collected and disposed appropriately following relevant regulations. *According to PIF, the closest settlement (in Kozluören Village) is 1130 m away from the nearest turbine of the project activity. Distance-noise calculation for construction period of the project activity shows that the noise level for 1000m is 41.93 dBA, which is below minimum legal limit values i.e. 50 dBA for night and 60 dBA for daylight. The noise level from turbines during operation is low and under legal limits. Therefore, no negative impact of noise of the project activity to the habitants is expected during operation period. The*		

same is valid for shadow flickering effect. Since the nearest residential house is 1130 m away from the closest turbine there is no shadow flickering effect.

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.

Wastewater produced will be collected in an impermeable septic tank and will be periodically transferred to treatment plant of Gelenbe Municipality. This process will be handled according to the Regulation of Ministry of Environment and Forestry.

Waste oil will be vacuumed by vacuum truck regularly. By this way, discharge of plant sourced waste oil will not be allowed.

Following PIF, all waste generated by the workers and machines will be collected in separate closed bins (plastic, metals etc.) and then they will be collected by Soma Municipality. Non recyclable wastes will be collected in impermeable closed bins. Garbage bins' photos will be provided for solid household waste. By this way, solid waste disposal will not be allowed.

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.

The proposed Project activity is a renewable energy project and doesn't involve any hazardous chemicals & other materials. The host party has its credible legislation "Health and Occupational Safety Regulation". Regulation could be found under this link too: http://www.resmigazete.gov.tr/eskiler/ 2012/06/20120630-1.htm

Hazardous waste including lubricant, grease, light bulb, accumulator, etc. may release during the maintenance process of equipment; and Non-hazardous waste including domestic solid waste and domestic waste water are generated from worker's activities.		
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.		
The following mitigation measures will be applied to the project activity. *Hazardous wastes are collected and treated by the third authorized party in accordance with local laws and related regulations;* *Non-hazardous wastes are collected and treated in accordance with local laws and related regulations.* *All relevant legal building codes will be applied appropriately.*		
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.
The Project's purpose is to supply clean energy from the wind power plant to the national grid. Therefore, the Project does not involve the application of pesticides and/or fertilizers.

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.
N/A.

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.
The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle 4.3.7 Harvesting of Forests): There has not been a significant forestation during the construction phase (i.e. project has been approved as EIA positive) and the Project does not involve an operation that requires forest harvesting.

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.
The Project is being implemented in a proper way (by considering the concerns indicated via the entire principle 4.3.8 Food): The Project does not modify the quantity or nutritional

quality of food available such as through crop regime alteration or export or economic incentives.		
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.		
N/A.		
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 Project is being implemented in a proper way (by considering the concerns indicated via the entire principle 4.3.9 Animal husbandry): The Project does not involve any operation that disrupt husbandry and agriculture in the region.		
Would the project involve or lead to:		
P.9.9.1 |	animal husbandry or harvesting of fish populations or other aquatic species?[33]	☐ 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 ☒ NA
P.9.9.5 |	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO

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

		☒ 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.

N/A.

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.

There is no endangered flora or fauna in the region. The project site has no protection status in terms of National Park, Land Fence, Protection of Cultural and Natural Assets and similar laws. The project is not located in an area within a high conservation value area or within critical natural habitats or key biodiversity areas or site identified. Therefore, the project activity does not affect or alter ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified.

The project area is not on the migration path of birds therefore the effect on birds by the project activity is negligible. However, proper mitigation measures will be applied to the project activity including: painting over turbine with white color and installation of warning lights.

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.

N/A.

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.

1. According to the PIF, the project area is not in natural protection zone. There are no endangered species identified as potentially being present the project Boundary.

2. According to PIF and also the bird routes map of Doga Dernegi (an environmental NGO in Turkey), the project is not on the route of migration birds. The project doesn't affect adversely the migration of birds.		
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.		
N/A.		
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.		
N/A.		
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.		
N/A.		

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	Bilgin Güç Santalleri Enerji Üretim A.Ş.
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APPENDIX 4 - DESIGN CHANGES

Please refer to Design Change Requirements for more information on procedures governing Design Changes

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