REPORT

Yalova Wind Power Plant

Non-Technical Summary for the Yalova WWP Project

Submitted to:

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1.0 INTRODUCTION

1.1 About Yalova WPP Project

Yalova Wind Power Plant ("WPP") Project (the "Project") is planned to be established and operated in the Çınarcık and Armutlu Districts of Yalova Province and Gemlik District of Bursa Province by Yares Elektrik Üretim A.Ş. ("Yares"), a company under Fina Enerji Holding A.Ş. ("Fina").

The installed power of the Yalova WPP Project has been designed as 53.2 MWm / 50 MWe with 14 turbines having 3.8 MW capacity each. The design puts the foreseen energy generation output of the Project as 175 GWh/year. It is planned that the energy to be generated at the wind power plant will be connected to the switchyard of the existing 4 km away Kürekdağı WPP and supplied to the interconnected system.

The standard "49-year Electric Power Generation License" for the Project (License No. EÜ/3474-6/2114, dated 26.10.2011, lately amended on 31.05.2019) has been issued by Energy Market Regulatory Authority ("EMRA") for the Yalova WPP Project.

1.2 About Fina

Fina Enerji has been established by Fina Holding in 2007 to involve in development, generation and trading of renewable energy and continues its activities with 450 employees of all subsidiaries. Fina Enerji currently has 9 wind farms of 336 MW and 5 solar power plants of 25 MW under operation. 9 wind power plants with a capacity of 350 MW are in the pipeline. Fina Enerji which is one of the most important companies of Fina Holding contributes to the country's economy through generation of energy from renewable resources. Yares as subsidiary of Fina Enerji is currently in the process of making investments in WPP Projects where Yalova WPP Project is one these potential projects.

1.3 The Goal of this Document

This document is a non-technical summary (NTS) of the planned and already conducted Environmental and Social Impact Assessment studies for the Project in a non-technical language, together with the mitigation measures proposed by Yares for the management of the Project environmental and social issues.

1.4 Previous Environmental and Social Studies Conducted for the Project

- **Environmental Impact Assessment (EIA) Report**: Yalova WPP was initially designed with 12 turbines with the total installed capacity of 43.2 MW and granted the EIA Not Required Decision for the Project on 5th of March 2010. After the initial design, the Project capacity was increased to 50 MW by increasing the turbine number to 25, and granted the EIA Not Required Decision on 21st of September 2011. In the meantime, the turbine number of the Project was increased to 30 with a revised project location and granted EIA Approval on 14th of July 2016. In 2018, the Project was revised again to have total installed capacity of 50 MWm/50 MWe with 14 turbines which granted the EIA Approval on 8th of April 2019. At final, modifications were made on the turbine locations and the Project's total installed capacity was increased to 53.2 MWm/50 MWe for 14 turbines having 3.8 MW capacity each. Official Letter from MoEU confirming that the EIA Decision is valid for the revised turbine locations of the Yalova WPP (53.2 MWm/50 MWe for 14 turbines- 3.8 MW each) was granted on 8th of July 2019.
- **Flora and Fauna Studies:** Within the scope of the EIA Report studies, a field study was carried out by Hacettepe University Faculty of Science Biology Department Instructor Haşim Altınözlü in April 2018 to determine the risks and protection status faced by the floral structure and the components of the flora of the project site. Similarly, fauna studies (except birds) were conducted in April 2018 by Prof. Dr. Şakir Önder Özkurt to make habitat investigations and assessment of the habitats used by local fauna components. A specific bird study was conducted within the scope of the Project EIA studies and a field

study was conducted by Prof. Dr. Şafak Bulut in April 2018 to identify the bird species inside and near the vicinity of the Project area; to identify populations and protection status and create an inventory about these species.

- **Early engagement meetings** were held to protect social environment and local people living in project impact area in the national EIA process. The living conditions, demands, expectations, suggestions and complaints of local people were determined. Contribution to local stakeholders during project implementation is aimed.

1.5 Ongoing Studies

- For the physical baseline assessments, air quality and noise quality measurements have been completed by Batı Laboratory which is an accredited company from MoEU.
- Bird and bat survey studies have been initiated by Kerem Ali Boyla for the Project. Bird collision risk assessment studies are ongoing.
- Biodiversity baseline and impact assessment studies are ongoing for Project

1.6 Standards to be applied in the Project

Yares commits to adhere to the provisions of Turkish Legislation applicable to the Project during the life time of the Project. These requirements include (but are not limited to) the Environment Law, Occupational Health and Safety Law, Labour Law and their issued regulations. The Project will comply with the applicable World Bank ("WB") Environmental and Social Standards ("ESSs") which are more stringent than national legislation and standards.

2.0 THE PROJECT

2.1 The Purpose of the Project

Wind energy is one of the important sources of clean energy production while playing an important role in fighting global warming. Turkey has an increasing demand in energy and the use of clean, non-dependent, endless renewable energy has become more important for Turkey in order to meet the demands. The wind potential of Turkey is very valuable as the usage of wind as an energy resource has increased since 2005.

In this content, the aim of the Yalova WPP Project is to install a wind farm which will provide clean energy in a sustainable and cost-effective way and therefore contribute to the regional and national benefits.

The environmental permits obtained for the Yalova WPP Project are listed in table below.

Table 1 Project Environmental Permitting

Project EIA Permitting	Issue Date
The standard "49-year Electric Power Generation License" for the Project (License No. EÜ/3474-6/2114) has been issued by Energy Market Regulatory Authority ("EMRA") for the Yalova WPP Project.	26.10.2011, lately amended on 31.05.2019
EIA Not Required Decision for the Yalova WPP for the 14 turbines with the total installed capacity of 43.2 MWe located in Bursa and Yalova Provinces.	05.03.2010

Project EIA Permitting	Issue Date
EIA Not Required Decision for the capacity increase of the Yalova WPP for 25 turbines with the total installed capacity of 50 MWe located in Bursa and Yalova Provinces.	21.09.2011
EIA Positive Decision for the revised Yalova WPP for 30 turbines with the total installed capacity of 50 MWe located in Bursa and Yalova Provinces.	14.07.2016
EIA Positive Decision for the revised Yalova WPP for 14 turbines with the total installed capacity of 50 MWe located in Bursa and Yalova Provinces.	08.04.2019
Official Letter from MoEU confirming that EIA Decision is valid for the revised turbine locations and capacity of the Yalova WPP of 53.2 MWe of total installed capacity with 14 turbines.	08.07.2019

2.2 Renewable Energy Generation Capacity of the Project

Yares is planning to operate Yalova WPP with the total installed capacity of 53.2 MWm/50 MWe with 14 turbines having 3.8 MW capacity each. The design puts the foreseen energy generation output of the Project as 175 GWh /year.

2.3 Project Description (Including Associated Facilities)

The technology used in the Project will provide the wind turbines to convert the kinetic energy into mechanical energy which is then converted into electricity by a generator. The installed power of the Yalova WPP Project has been designed as 53.2 MWm/50 MWe, with fourteen turbines functioning at 3.8 MW. Associated facilities of the Project that are included in the Area of Influence are comprised of the following:

- The Wind Turbines
- Access Road
- Energy Transmission Line (not yet finalized)
- Switchyard
- Mobilization/construction camps
- Transformer Stations

2.4 Project Location

The T1, T2, T3, T7 and T8 turbines of Yalova WPP Project are located in the Çınarcık District of Yalova Province and T4, T5 and T6 are located in Armutlu District of Yalova Province and T9, T10, T11, T12, T13, T14 and the switchyard are located in Gemlik District of Bursa Province.

The nearest settlement to the Yalova WPP Project is in Delmece Highland located at 0.5 km distance to the T7.

The area is also identified as KBA “Armutlu Peninsula” for plants (Cetaurea hermanni and Crocus pestalozzae) both endemic to Turkey and threatened at regional level. KBA Turkey book[1] lists more species including Montivipera xanthina (reptilia) (CR at global level) and Thymelicus action (Lepidoptera) (VU at regional level.

Other nearby settlements around the Project site are Selimiye, Narlı, Karacaali, Büyükkumla, Hayriye, Haydariye, Şenköy, Kocadere and Teşvikiye Neighbourhoods. The ETL route has not yet been finalised.

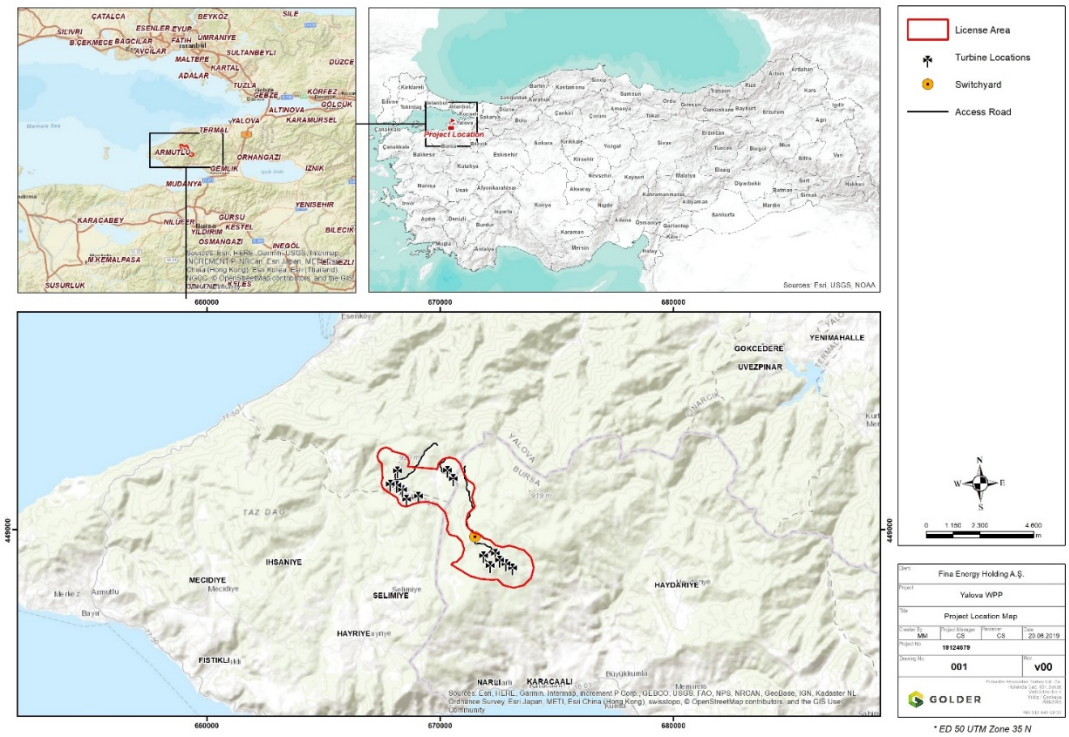

Figure 1 Yalova WPP Project Site Location Map

[1] Eken ,G. et al. (eds) 2006.Turkiye'nin onemli doga alanlari. Doga dernegi., Ankara

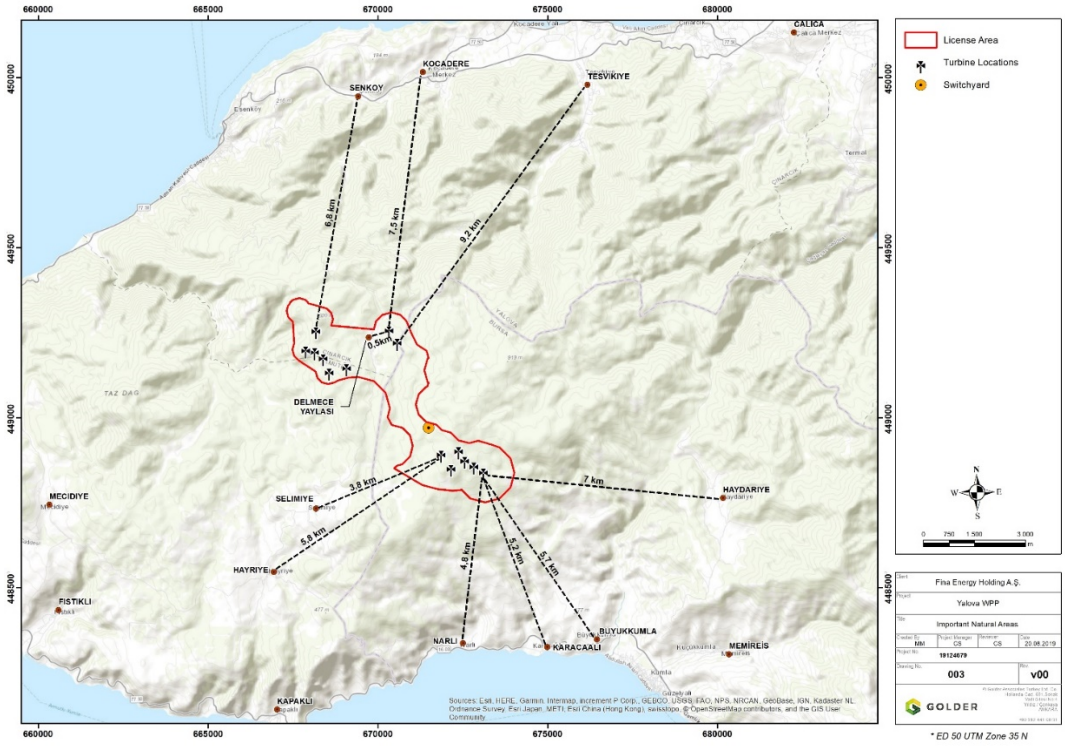

Figure 2 Yalova WPP Turbine Locations and the Nearest Settlements

2.5 Land Acquisition and Required Permissions for the Project

According to the information gathered from the Project Owner, project area fully belongs to the Forestry premises: The strategy of the Owner is to rent these premises from Forest Administration (Ministry of Agriculture and Forestry) within the license duration. There is no private land and the Project is not expected to induce any involuntary physical resettlement.

2.6 Project Schedule

The detailed Project schedule is presented in Table 2.

Table 2 Project Schedule-Summary

TASK	START DATE	FINISH DATE
Basic Design	01.09.2017	02.05.2018
Detailed Engineering	29.04.2018	01.12.2018
Procurement	01.11.2019	26.09.2020
Land Clearing	15.09.2019	15.12.2019
Construction	29.02.2020	10.09.2020
Turbine Montage	27.09.2020	12.01.2021
Commissioning	21.10.2020	19.01.2021
Operation	28.10.2020	…

2.7 Personnel Plan of the Project

Total number of personnel planned to employ 100 at peak including subcontractors for the construction period of the Project. The number of planned personnel for the operation period is 18. Project will prioritize the local applicants during the recruitment project.

3.0 MANAGEMENT OF ENVIRONMENTAL AND SOCIAL ISSUES

For the management of environmental and social issues, following mitigation measures will be implemented in the construction and operation phases of the Project.

Table 3 Summary of Project Management Strategy for Construction Phase

Component	Potential Impact	Mitigation Measures
Air Quality	■ PM10-PM2.5 resulted from construction activities and transportation ■ SO2, NOx, resulted from construction activities and transportation	■ Periodic maintenance of construction equipment ■ Dust suppression by street-sprinkler ■ Implementation of relevant Management Plan/Procedures (Traffic Management Plan, Training, etc.) ■ Conducting air quality measurements (PM_{10}, SO_2&NO_2) at the beginning of the construction, at the peak time of the construction and at the end of the construction period.
Noise	■ Resulted from construction activities, construction of roads and transportation	■ Periodic maintenance of construction equipment ■ Implementation of relevant Management Plan/Procedures (Traffic Management Plan, Training, etc.) ■ Conducting noise measurements at the beginning of the construction, at the peak time of the construction and at the end of the construction period.
Water usage	■ The water to be used in construction and operation phase will be supplied by tankers from the nearest settlement.	■ Necessary correspondences to be obtained to supply water.
Wastewater	■ Domestic wastewater will be formed in the project due to worker's water usage.	■ Septic tank will be used to collect the wastewaters. Wastewater that accumulates in the septic tank will be collected by the municipality or service providers authorised by the municipality.
Biodiversity	■ Impacts on flora and fauna components by land disturbance ■ Dust and noise impacts (given above)	■ The general mitigation measures (such as, land minimization of land disturbance where possible, etc.) are defined in the EIA Report. ■ Bat and bird survey has been initiated. A bird collision risk assessment study is ongoing.

Component	Potential Impact	Mitigation Measures
		■ Flora and vegetation field study will be conducted ■ Presence of natural and critical habitat will be assessed ■ A biodiversity management plan will be prepared. ■ The specific mitigation measures will be defined in the light of the findings of additional field studies and existing assessment reports.
Cultural Heritage	■ The Project area does not fall into an archaeological site.	■ Implementation of Chance Find Procedure
Social - Economical and Land Use	■ Positive impacts are expected both for local procurement and local employment. ■ Impacts on livelihood resources may be resulted by construction activities	■ Prioritizing the local procurement and employment.
Community Health and Safety	■ Increased traffic load and potential risks ■ Unauthorized site access ■ Potential communication problems of community members with workers. ■ Dust and noise impacts (given above)	■ Implementation of relevant Management Plan/Procedures (Community H&S Management Plan, Traffic Management Plan, Training, etc.) ■ Implementation of Grievance Mechanism Procedure
Occupational Health & Safety	■ Occupational health and safety risks will mainly include activities of working at height and lifting operations.	■ Implementation of Occupational H&S Policy/Plan/Procedures/Instructions, Emergency Response Plan, Traffic Management Plan ■ Training and supervision ■ Emergency drills ■ Accident/Incident Reporting and investigations ■ Suggestion/Complaints reporting ■ Regular site inspections

Table 4 Summary of Project Management Strategy for Operation Phase

Component	Potential Impact	Mitigation Measures
Noise	■ No impact is expected based on the noise modelling results for operational activities	NA
Biodiversity	■ Impacts on flora/vegetation and fauna components (Birds and bats)	■ The general mitigation measures (such as, land minimization of land disturbance

Component	Potential Impact	Mitigation Measures
		where possible, etc.) are defined in Ornithological Ecological Assessment Report and Bird Monitoring Report. ■ A biodiversity management plan will be implemented
Cultural Heritage	■ The Project area does not fall into an archaeological site.	■ Implementation of Chance Find Procedure
Social - Economical and Land Use	■ Positive impacts are expected both for local procurement and local employment.	■ Prioritizing the local procurement and employment
Visual Impact	■ Visual impacts associated with wind energy projects typically concern the installed and operational turbines themselves.	■ Visual Impact Assessment studies are completed for the Project.
Shadow Flicker and Blade/Ice Throw Assessment	■ Shadow flicker may become an impact when potentially sensitive receptors are located nearby.	■ Shadow flicker assessments are completed for the Project. ■ The setback distance calculated for the blade/ice throw assessment is met in the Project.
Community Health and Safety	■ A failure of a rotor blade can result in throwing. ■ Unauthorized access to turbines ■ Shadow Flicker and Blade/Ice Throw Impact (explained above).	■ Regular maintenance of the turbines.
Occupational Health & Safety	■ During operation the impacts will likely be limited to the maintenance of the turbines.	■ Implementation of Occupational H&S Policy/Plan/Procedures/Instructions, Emergency Response Plan, Traffic Management Plan ■ Training and supervision ■ Emergency drills ■ Accident/Incident Reporting and investigations ■ Suggestion/Complaints reporting ■ Regular site inspections

4.0 STAKEHOLDER ENGAGEMENT

A Stakeholder Engagement Plan (SEP) has been prepared for the construction and operational phases of the Project in line with the WB ESS10. The SEP identifies target groups and the specific range of engagement activities required for each group.

Yares has the overarching goal of developing sustainable relations with stakeholders through the lifetime of the Project and therefore will continue to engage stakeholders through various activities as detailed in the Stakeholder Engagement Program.

Yares will provide transparent informative material in a consistent and timely manner to the affected communities and the remaining stakeholders. Communication methods to be employed vary dependant on the project phase, issue to consult/inform as well as the stakeholder type. Communication methods with stakeholders within the Project include but not limited with the following:

- Public hearings or meetings
- Workshops and seminars
- Consultations with key informants
- Focus groups
- Round tables
- Discussions as part of conducting surveys or census studies
- Consultations using electronic media
- Awareness campaigns and outreach
- Internal/external grievance mechanism

Initial engagement methods have been in the form of meetings and interviews. Yares authorities or consultants for Yares have gone to the affected communities to consult with the local stakeholders. These methods will continue during the construction and operational period. Construction and Operational managers of the Yalova WPP Project will maintain regular dialogue with the local Mukhtars of the affected settlements.

5.0 HOW WILL THE PROJECT SUPPORT COMMUNITY DEVELOPMENT?

Yares will develop and Implement Corporate Social Responsibility (CSR) Plan within the scope of the Yalova WPP Project.

6.0 HOW TO RAISE A COMPLAINT OR ASK A QUESTION?

Yares has established a grievance mechanism which is available for every stakeholder to use, both internal and externally. Any comments or concerns can be brought to management attention either verbally or in writing (by post or e-mail) or by filling in a grievance form (an example is included in Appendix-1). Through that mechanism Yares will respond to and resolves the raised issues.

In order to ask a question, to make a comment or a complaint, stakeholders may also reach out to the General Directorate and Operations' Formal Communication departments by using following contact information.

Fina Istanbul office; Name: Title: Telephone: Address: E-mail: Website:	Yares Yalova office; Name: Title: Telephone: Address: E-mail: Website:

APPENDIX 1 – YARES INTERNAL GRIEVANCE FORM

Reference No:	
Full Name Note: *you can remain anonymous if you prefer or request not to disclose your identity to the third parties without your consent*	**Name & Surname: _____** ☐ **I wish to raise my grievance anonymously** ☐ **I request not to disclose my identity without my consent**
Contact Information **How the complainant wants to be contacted (mail, telephone, e-mail).**	☐ **By Post:** **Mailing address:** ☐ **By Telephone: _____** ☐ **By E-mail _____** ☐ **I don't want to be contacted**
Description of Incident or Grievance:	What happened? Where did it happen? Who did it happen to? What is the result of the problem?
Case summary:	
Date of Incident/Grievance	
	☐ **One-time incident/grievance (Date _____)** ☐ **Happened more than once (how many times? _____)** ☐ **On-going (Provide details)**
What would you like to see happen to resolve the problem?	

Only for internal usage: Status of complaint		
	Date:	Signature:
Complaint is closed by:		
Actions taken (Provide details):		

APPENDIX 1 – YARES EXTERNAL GRIEVANCE FORM

<table>
<tr><td colspan="3">Information about the complainant</td></tr>
<tr><td colspan="2">Name and Surname:</td><td rowspan="4">Only for internal use: How is the complaint made?
1. In person
2. By phone
3. By mail
4. By e-mail
5. Other (specify)……</td></tr>
<tr><td colspan="2">Date: ___/___/_____</td></tr>
<tr><td colspan="2">Address</td></tr>
<tr><td colspan="2">Phone</td></tr>
<tr><td colspan="2">E-mail</td><td></td></tr>
<tr><td colspan="2">Name and Surname of the person taking the complaint</td><td>Date of complaint and signature:</td></tr>
<tr><td colspan="3">DETAILS OF COMPLAINT:</td></tr>
<tr><td colspan="3">• Case for one time (date of problem/complaint ……..)

• Does the problem occur more than one?
☐ Yes, (how many times?.....)
☐ No

• Does the problem/complaint continue? (If “Yes”, provide details):</td></tr>
<tr><td colspan="3">Only for internal usage: Record and Respond</td></tr>
<tr><td colspan="2">Complaint reference number:</td><td>Date of complaint log:</td></tr>
<tr><td colspan="2">Name of personnel recording the complaint</td><td rowspan="2">Copy transfer:
• Relevant unit
• Other (specify)…….</td></tr>
<tr><td colspan="2">Required action:</td></tr>
<tr><td colspan="3">Only for internal usage: Status of compliant</td></tr>
<tr><td></td><td>Date:</td><td>Signature:</td></tr>
<tr><td>Complaint is closed by:</td><td></td><td></td></tr>
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