# Non —Technical Summary

Information



The SARDEM Wind Power Plant is a Project realized in OSMANİYE in the scope of the AKFEN Renewable Energy Project



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## Abbreviations

Table 1 TABLE OF ABBREVIATIONS

Akfen	AKFEN Yenilenebilir Enerji			
CSR	Corporate Social Responsibility;			
EBRD	European Bank for Reconstruction and Development			
EIA	Environmental impact assessment			
ESAP	Environmental and Social Action Plan			
ESDD	Environmental and Social Due Diligence			
ESMS	Environmental and Social Management System			
ETL	Energy Transmission Line			
Golder	Golder Associates Müh. Müş. Proje İth. İhr. Tic. Ltd. Şti.			
IFC	International Finance Corporation			
NTS	Non-Technical Summary			
PdoEU	Provincial Directorate of Environment And Urbanization			
PIFs	Project Introduction File			
PR	Performance Requirement			
Boğa	Saritepe and Demirciler Wind Power Plant Projects			
Project				
PS	Performance Standard			
September	Stakeholder Participation Plan			
TEİAŞ	Türkiye Elektrik İletim Anonim Şirketi			
WPP	Wind Power Plant			
Zorlu	Zorlu Rüzgar Eneriisi Elektrik Üretimi A.S.			



## 1. Introduction

#### 1.1 The Purpose of This Summary

This is a non-technical summary of the "Environmental and Social Due Diligence" studies conducted for the Project in accordance with the standards of the European Bank for Reconstruction and Development (EBRD) and International Finance Corporation (IFC). The presentation of this summary is prepared with a non-technical language that is easy to understand. It contains basic information about "SARDEM", possible environmental and social impacts related to the project, and the impact mitigation measures suggested by Akfen Yenilenebilir<sup>®</sup> Enerji (Akfen). This summary aims to answer the possible questions of the stakeholders and inform them. Furthermore, it aims to create a two-way communication line between the stakeholders and Project representatives by providing information about the stakeholder complaint mechanism.

#### 1.2 Renewable Energy

There are several different methods for generating energy. It is a wide range consisting of various options from burning coal for steam to wind power. The methods for energy generation can be divided into two main categories, namely "Renewable and Non-Renewable" energy. Theoretically, resources used for renewable energy generation do not consume energy resources, contrary to non-renewable resources. To give an example, steam-powered thermal power plants rely on burning biomass, such as coal, for generating steam, and considering the fact that the quantity of coal in the world is limited, coal burnt for steam is a type of non-renewable energy. However, the energy generated by utilizing wind, solar, geothermal, and other energy resources alike is "non-consumable". As a result, this sort of energy resources are defined as "renewable."

Despite the fact that the renewable energy resources are unlimited, for implementing renewable power generation, they rely on the availability of access to the energy concerned and constitute a restriction in this respect. That is to say, that wind energy is a renewable energy form, but it is required to have sufficient wind in order to ensure power generation in wind power plants at all locations.

#### 1.3 Why Renewable Energy

Earth's temperature is rising at an alarming pace due to the gradual increase in the greenhouse gases released into the air. Rising temperatures force the world's climate to change. Extreme climate conditions, including more floods, more drought, and severe rises in temperature, are experienced. The impacts of climate change reach every corner of our planet, and Turkey is expected to be affected by them very much. As a result, preventing the release of greenhouse gases will undoubtedly be in the interest of the world and Turkey.



One of the primary sources of greenhouse gases is the energy industry. Burning non-renewable fuels, such as oil and natural gas, lead to greenhouse gas releases. Renewable energy resources get their energy from relatively "cleaner" options instead of generating energy out of non-renewable resources. For this reason, the investments made in renewable energy are an important way for the world to fight against climate change.

Renewable energy options are generally independent power generation options. For example, natural gas is a relatively clean option, but in Turkey, it is typically procured and imported from foreign organizations. The more Turkey imports fuel resource, the more dependent it becomes on the other countries to generate its own energy. However, when renewable energy resources, such as solar and wind, are taken into consideration, the sun shines everywhere and wind blows everywhere. Therefore, choosing these energy options ensures energy independence in the country concerned.

The tensions experienced and negative impacts of the climate change within the geographical region where our country is situated unfortunately increases the energy demand in Turkey. This makes it even more important to use clean, renewable energy that does not depend on foreign capital. According to the Ministry of Energy and Natural Resources, the total energy consumption in Turkey rose by 4.7% between July 2016 and July 2017 to 167.1 billion kWh, whereas the generation rose by 6.7% to 167.3 billion kWh. AS of July 2017, 34% of the electricity is generated from natural gas, 31% from coal, 24% from hydroelectric, 6% from wind energy, 2% from geothermal energy, and 3% from other resources[1]. Solar, biomass, and heating oil resources are examples of the energy generated from other resources. Therefore, more than 60% of Turkey's power is unfortunately dependent on non-renewable resources. That is why the investment capacity of renewable energy such as wind is crucial.

#### 1.4 How to Use the Energy in Wind

The wind is the movement of the air. Everything that moves has energy. In order to utilize this energy, it must be converted into energy that we can use, such as electricity. To do this, wind turbines are built. When the wind applies pressure on these turbines from the opposite direction, they generate electricity. The electricity generated is transferred to the switchyard and then, sent to the natural electricity distribution network through energy transmission lines.

Picture 1 PHOTOGRAPHS OF THE WIND TURBINES, ENERGY LINES AND SWITCHYARD FROM THE PROJECT SITE





#### 1.5 What Is SAR-DEM Project

SAR-DEM Project is an organization of Sarıtepe Wind Power Plant and Demirciler Wind Power Plant. The name SAR-DEM comes from the first three letters of these two organizations. In places where Sarıtepe WPP and Demirciler WPP's total installed power is 80.3 MWm / 73.3 MWe, 31 turbines are in operation. İmbat Enerji A.Ş. acquired all shares, and included this Project in the ESDD, Environmental and Social Due Diligence.

In order to determine how much wind energy can be spent with Sarıtepe and Demirciler Project, feasibility studies have been conducted. After several designs are taken into consideration, it has been decided to install 31 wind turbines operating in 2.85 MW<sub>m</sub>, and 7 turbines of 1.70 MW<sub>m</sub>. Therefore, the total installed power of the Project is 80.3 MW. The results of the feasibility study anticipate that the Project will approximately generate 316 kWh/year.

According to the World Bank, the average electricity consumption in the world, in general, was 3,125 kWh/person as of 2014. In comparison, Turkey's averageelectricity consumption was a bit less in 2014, with total 2,885 kWh/person. [2] The SAR-DEM Project aims to generate electricity sufficient to meet the needs of 110,683 persons in Turkey, with a generation of approximately 316 million kWh/year.

SAR-DEM Project is connected to the national network with 2 energy transmission lines ("ETL"). These are Saritepe WPP Project- Gökçedağ WPP Center ETL, and Saritepe WPP Center - Fevzipaşa Transformer Station.

Saritepe WPP Transformer Station- Gökçedağ WPP Transformer Station ETL is an overhead transmission line of 154 kV. The length of the energy transmission line is approximately 8.2 km. The distribution line is within the borders of the Osmaniye province. Saritepe WPP Transformer Station-Fevzipaşa WPP Transformer Station energy transmission line is also an overhead transmission line of 154 kV. The length of the energy transmission line is approximately 10.4 km. The distribution line passes through the borders of Osmaniye and Gaziantep provinces.

#### 1.6 Who Is İmbat Enerji



İmbat Enerji is a part of the Akfen Holding group. Akfen Holding makes investments, manages, and coordinates as it operates in airports, ports, marine transportation, construction, water distribution and wastewater collection networks, power generation, real estate, and many other sectors. Akfen Yenilenebilir Enerji is focused only on renewable energy and operates only in the renewable energy sector. Akfen Yenilenebilir Enerji's fields of interest are hydroelectric, solar, wind, and geothermal energy generation.

As of June 8, 201, EBRD and IFC hold total 32% of Akfen Yenilenebilir Enerji's shares, with 16% each. The share of Akfen Group of Companies in Akfen Yenilenebilir Enerji is 68%.

#### 1.7 Where Is SAR-DEM Project

SAR-DEM Project is located in the south of the Anatolian Peninsula, Republic of Turkey, within the borders of the Osmaniye province. Situated in the Mediterranean Region, the Osmaniye province is 24 north-east of the Mediterranean. (See Picture 2)



Picture 2 GEOGRAPHICAL LOCATION OF THE OSMANİYE PROVINCE

SAR-DEM Project is located in the Bahçe county, Osmaniye province, Turkey. The Project site is located 5 km east of Nurdaği county center and 6 km west of Bahçe county center. The closest settlement to the Saritepe WPP project is Kaman Village, located approximately 750 west of the closest turbine, and Olucak Neighborhood, located approximately 750 m east of the closest turbine. On the other hand, the closest settlement to Demirciler is in Inderesi Village that is located approximately 1.5 km north of the closest turbine. The Project site is surrounded by forests. The New Adana-Gaziantep-Şanlıurfa Highway and old Osmaniye-Kahramanmaraş-Gaziantep Highway are located in the south of the Project site. The distance between the closest turbine and the new highway is approximately 800 m.

Picture 3 PROJECT SITE (NOTE: ST: SARITEPE WPP TURBINES, DT: DEMİRCİLER WPP TURBINES)





Picture 4 ENERGY TRANSMISSION LINE ROUTES



The closest settlement to the Project site is given in the Table 1.



Project Settlement		Expense Loading Direction	Distance
SAR-DEM Project	Bahçe District	East	6 Km.
SAR-DEM Project	Nurdağı County	West	5 Km.
Saritepe WPP	Kaman Village	East	750 meters
Saritepe WPP	Olucak Neighborhood	West	750 meters
Demirciler WPP	İnderesi Village	South	1.5 Km.

Table 2 THE CLOSEST SETTLEMENTS THE PROJECT SITE

Karatepe Aslantaş National Park, which is the closest preservation area recorded by the Ministry of Agriculture and Forestry, is located approximately 30 km west of the Project site according to the Ministry's Geographical Information System ("GIS") data.

All Demirciler WPP turbines and some Sarıtepe WPP turbines are located in the Amanos Mountains Key Biodşversity Area ("KBA"). Amanos Mountains ("KBA") have no legal status in Turkey.



Picture 5 THE LOCATION OF THE PROJECT BY KARATEPE ASLANTAŞ NATIONAL PARK

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Picture 6 AMANOS MOUNTAINS KBA AND PROJECT SITE (Reference: http://www.dogadernegi.org/)

#### 1.8 What Is the Purpose of the Project

As discussed earlier as well, Turkey needs to invest in renewable energy more, and the Osmaniye province has sufficient wind resources for the wind harvest potential (See Figure 7). In this context, SAR-DEM Project ensures sustainable, clean, and independent energy as well as effective cost management. Thanks to these qualities, it makes contribution to its region and the nation.

Picture 7 TURKEY WIND MAP

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#### 1.9 How Is the Situation of Wind Energy in Osmaniye

As a matter of fact, SAR-DEM Project is not the only WPP within the borders of the Osmaniye province. Because of the high level of wind energy in the region, there are several WPP projects in generation operation (See Figure 7). According to the literature survey and the data from the Turkish Wind Energy Association's website, there are 4 WPPs around the Project site. A map showing the locations of a few wind farms around the Project site is given in Figure 8. The closest wind farm to the Project, which is Gökçedağ, is 5 km from the wind power plant where the project is located. Gökçedağ Wind Power Plant is in the operational stage.

#### Picture 8 WIND POWER PLANTS CLOSE TO THE PROJECT





#### 2.1 Which Standards Will Be Used in the SAR-DEM Project

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The Project's construction and operation stages are managed by İmbat Enerji, one of Turkey's leading renewable energy companies. İmbat Enerji has the "Gold Standard Certificate" for Sarıkaya and Demirciler WPP Project. Furthermore, İmbat Enerji is one of the companies that calculated its carbon footprint in Turkey. The operation by İmbat Enerji is aimed to increase the number of good practices, and the Project is aimed to reach international standards.

The requirements that İmbat Enerji committed to comply with throughout the Project are the laws and regulations in the scope of the Turkish Legislation. These requirements are the regulations in the "Environmental Law", "Work Health and Safety Law", "Labor Code", and the regulations thereof (but not limited to the foregoing).

In addition to the Turkish Laws and Regulations, some other requirements will be complied with during the operation of the Project. These requirements are EBRD and IFC's requirements. The prevalence of these requirements over the Turkish Legislation will depend on the stricter requirement, law, or rule. These are the European Bank for Reconstruction and Development's "Environmental and Social Performance Requirements" ("EBRD ESPR"), International Finance Corporation's Performance Requirements ("IFC PR"), and the National Legislation of the Republic of Turkey.

Imbat Enerji has a corporate Environmental and Social Management System (ESMS), and the environmental, social, health, and safety control measures are determined in the relevant plans and procedures. The purpose of the ESMS is to respond to the problems that emerged during a project and utilize a systemic management system to conduct basic daily procedures. It is to ensure accountability, order, and efficiency in a project. For this purpose, İmbat Enerji will apply Akfen Sürdürülebilir Enerji's corporate Management Systems for SAR-DEM's environmental and social management system ("ESMS") and health and safety management system.

An Environmental and Social Action Plan (ESAP) was developed for the SAR-DEM Project. This ESAP is a general action plan for all environmental and social components which may be affected by the Project. The ESAP will be annually monitored and periodically reported to the EBRD and IFC. Furthermore, the ESAP specific to SAR-DEM will be monitored in periods to be precisely defined.

#### 2.2 The History of the Project and Its Current Condition

İmbat Enerji operates 31 turbines in total in the project called Project SAR-DEM together with the Sarıtepe Wind Power Plant and Demirciler Wind Power Plant of 80.3 MWm/73.3 MWe in total. The date of commissioning of the SAR-DEM Project in the Osmaniye Province, Turkey, is February 2020.

The energy generated in the Sarıtepe WPP and Demirciler WPP is connected to a system interconnected from the same switchyard between Sarıtepe WPP's ST-8 and ST-12 turbines.

The Project Information Files ("PIFs") have been prepared for the WPPs pursuant to the Environmental Impact Assessment ("EIA") regulation. The "EIA Not Required" Decision was obtained on 03.07.2009 from the Osmaniye Provincial Directorate of Environment and Urbanization. After the EIA decision, exemption decisions for capacity increases, the relocation of turbines, and changing the title of the company were obtained from the Provincial Directorate.



SAR-DEM Project is connected to the national network with 2 energy transmission lines ("ETL"). Saritepe WPP - Gökçedağ WPP Transformer Station Energy Transmission Line, and Saritepe WPP Transformer Station - Fevzipaşa Transformer Station Energy Transmission Line.

Saritepe WPP Transformer Station-Gökçedağ WPP Transformer Station Energy Transmission Line is an overhead transmission line of 154 kV. The length of the Energy Transmission Line is approximately 8.2 km. The distribution line is within the borders of the Osmaniye province. A connection agreement was signed by and between the Turkish Power Connection Institution ("TEİAŞ") and the former operating company on 17.08.2015.

Saritepe WPP Transformer Station-Fevzipaşa Transformer Station Energy Transmission Line is an overhead transmission line of 154 kV as well. The length of the Energy Transmission Line is approximately 10.4 km. The distribution line is within the borders of the Osmaniye and Gaziantep provinces. A connection agreement was signed by and between the Turkish Power Connection Institution ("TEİAŞ") and the former operating company on 17.08.2015.

The Energy Transmission Lines were prepared according to the Project Information Files and Environmental Impact Assessment Regulation. For the Sarıtepe WPP - Gökçedağ WPP Transformer Station Energy Transmission line, the "EIA Not Required" Decision was obtained from the Osmaniye Provincial Directorate of Environment and Urbanization on 15.12.2015, and for the Sarıtepe WPP - Fevzipaşa WPP Transformer Station Energy Transmission line, the "EIA Not Required" Decision was obtained from the Gaziantep Provincial Directorate of Environment and Urbanization on 21.12.2015. Furthermore, the roads were constructed before the construction of the plant in order to access the turbine locations.

#### 2.3 The Potential Impacts of the SAR-DEM Project

Yes, there are potential impacts. As a result of the SAR-DEM Project, there are both positive and negative potential impacts. These have been defined, and impact mitigation measures have been designed. Impact mitigation measures are utilized for mitigating the effect of a negative impact and amplifying the benefits of a positive impact. Some of these impact mitigation measures are specified in the sections below.

#### 2.4 What Were Done for Studying the Environmental and Social Impacts

Firstly, the Project Information Files ("PIFs") have been prepared for the WPPs pursuant to the Environmental Impact Assessment ("EIA") regulation. The "EIA Not Required" Decision was obtained on 03.07.2009 from the Osmaniye Provincial Directorate of Environment and Urbanization. After the EIA decision, exemption decisions for capacity increases, the relocation of turbines, and changing the title of the company were obtained from the Provincial Directorate.

Golder has prepared the Environmental and Social Due Diligence Report ("ESDD") in order to emphasize the areas of environmental concern or negligence and has done so for confirming the Project's compliance with the European Bank for Reconstruction and Development's Policy and Environmental and Social Policy Performance Requirements in force, International Finance Corporation's and European Union's environmental standards, and the effective Turkish legislation.

As a result, additional assessment studies and plans have been prepared in order to identify some current conditions, potential impacts, and how to mitigate them. These activities are summarized below:

• Ornithological and Flora-Fauna Assessment Report: This report has been prepared for assessing the flora and fauna characteristics and components of the project area. In WPP

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projects, the most vulnerable populations are **birds and bats.** The potential impacts on these populations and impact mitigation measures are defined in this study. The study has been conducted by a team consisting of an expert biologist, zoologist, and ornithologist. Ornithological monitoring studies have been conducted since 2015.

- Landscape Rehabilitation Report: Separate Landscape Restoration Plans were prepared for Saritepe and Demirciler WPPs each in 2013 in order to assess the potential visual and landscape impact of the SAR-DEM Project on the natural habitat in both construction and operation stages, and to take the required impact mitigation measures. For this purpose, the project site's natural and cultural assets were identified, and impact assessment was made, and the applicable impact mitigation measures were defined.
- **Bird Watching Reports:** Eight bird watching studies were made in total. These studies cover the spring and autumn seasons between 2015 and 2018. In the site observed, 5000 to 20,000 migratory birds were seen. It can be concluded that the project area is not on the main migration route but on a small migration corridor. A crash risk analysis required for assessing the potential impact of a wind power plant has not been made.
- Early Participation Meetings: In the scope of the Gold Standard process, a stakeholder participation meeting was held for the SAR-DEM Project on July 23<sup>rd</sup>, 2014. A feedback notebook was prepared for the local community and delivered to the village headmen for receiving the comments/complaints about the Project, and these notebooks are put in the Headmen's offices.
- Stakeholder Participation Plan: This plan has been prepared by Golder. The study contains all stakeholders defined, defined roles and responsibilities, defined project standards, and the tools and methods to be used for information disclosure and complaint mechanism (given at the end of this Non-Technical Summary).
- Additional Visual Impact Assessment Studies: A visual assessment study has been conducted, and the visibility of the turbines from the receivers is given in the Landscape Rehabilitation Reports. Mitigation measures for minimizing the visual impacts are set out in the study.

#### 2.5 What Did İMBAT Enerji Learn About the Bird Migration Routes

When the biological components are taken into consideration, birds are one of the animals affected the most by wind power plants. Turbine wings can hit birds. As a result, in addition to the studies set out in the Section 2.4., it is important to establish whether the Project is on a migration route.

All Demirciler WPP turbines and some Sarıtepe WPP turbines are in the Amanos Mountains Key Biodiversity Area ("KBA"). Amanos Mountains key biodiversity area has no legal status in Turkey. Amanos Mountains key biodiversity area covers the entire mountain, has a wide area of 3,625 km<sup>2</sup>, and is spread to the borders of four counties, namely Gaziantep, Hatay, Kahramanmaraş, and Osmaniye. The main flight corridor of migrant bottleneck types is concentrated around Belen Pass that accounts for at least 75 km of the Project site and Samandağı Coast. All species limited to the Mediterranean biome are common and found in Amanos Mountains, but they are more common in its forested west slope. White-Throated Kingfisher (Halcyon smyrnensis) Special Protection Subject is seen in the plains on the South-East (SE) slopes of the mountain between Samandağ and Kırıkhan. As a result, the project site is not in an environmentally sensitive location within the Amanos Mountains key biodiversity area.

There are 8 bird studies in total, covering both the fall and spring migration seasons between 2015 and 2018. Questionnaire data may indicate that 5,000 to 20,000 migratory birds may use the site



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every season. It can be concluded that the project area is not on the main migration route but on a small migration corridor. The impact on migratory birds is expected to be low.

Egyptian vulture (Neophronpercnopterus-White scavenger vulture) is the "MOST" endangered species, and documented to have been seen in the region several times in spring and fall. 2 to 4 birds were observed per season, indicating that the region can be used by at most 20-80 vultures in spring and fall.

Ornithological watching studies have been conducted since 2015. No critical situation, such as preventing the bird migration or crash, has been observed. The follow-up studies were suggested by Golder.

## 2.6 What Are the Potential Positive Impacts of the SAR-DEM Project and How Can They Be Reinforced

 Impact: When considered from a social and economic perspective, local supply is a positive impact of the project.
Impact Mitigation Measures :

Local supply and employment will be prioritized. (Section 2.10).

 Impact: The greenhouse gas will reduce as a result of the Project.
Impact Mitigation Measures : The Project has a "Gold Standard Certificate". The Project ensures an emission reduction of 100,000 tons CO<sub>2</sub>/year.

#### 2.7 What Are the Potential Negative Impacts of the SAR-DEM Project and How Can They Be Mitigated

Noise, dust, water consumption, and wastewater generation are not anticipated as negative impacts. The following are the anticipated impacts:

• Impact: Biological components, such as flora and fauna, may be affected by the WPP (including turbines).

Impact Mitigation Measures :

- General mitigation measures are defined in detail in the Landscape Rehabilitation Report, Ornithology, and Flora-Fauna Assessment Report, and Bird Watching Report. A measure to be taken accordingly will minimize the lands to be disturbed.
- 8 bird studies were made in total, covering both the fall and spring migration seasons between 2015 and 2018. Questionnaire data indicates that 5,000 to 20,000 migratory birds may use the site every season. It can be concluded that the project area is not on the main migration route but on a small migration corridor.
- Egyptian vulture (Neophronpercnopterus-White scavenger vulture) is the "MOST" endangered species and documented to have appeared in the region several times in spring and fall. 2 to 4 birds were observed per season, indicating that the region can be used by at most 20-80 vultures in spring and fall. Bird watching studies must be conducted for the Egyptian vulture in fall and spring. Egyptian vultures must be watched from one/two station(s) in April and September.
- A Crash Risk Assessment (CRA) based on the Scottish National Heritage Model (SNH) will be developed. According to the Crash Risk Assessment, for the Egyptian vulture to migrate, the Active Turbine Management and Shut-down system can be operated for

10 turbines (Demirciler T6-7-8-9-10-11 and Sarıtepe T17-18-19-20). It will be made sure that the operations do not result in the population impacts or deaths to result in increased deaths exceeding the thresholds defined in the Crash Risk Assessment.

- A carcass study will be conducted to assess the impacts on the scavengers (dogs, foxes, jackals, corvids, predators, etc.), and an observer determination rate assessment will be made to assess the accuracy of the survey. These studies are required for calculating the actual losses of existing turbines.
- Impact: No defined cultural heritage element is observed within the Project area.

Impact Mitigation Measures :

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- A Randomly Found cultural heritage procedure will be prepared and applied to define the actions to be taken in case of finding an archeological cultural heritage. Randomly Found Cultural Heritage Procedure will summarize what needs to be done if particularly archeological resources are seen. All employees will be provided with special training prepared with this topic.
- Impact: Visual impacts pose a problem for all turbines.

Impact Mitigation Measures :

- A visual assessment study has been conducted, and the visibility of the turbines from the receivers is given in the reports. Mitigation measures for minimizing the visual impacts are set out in the study.
- Impact: Shadow Shaking and Knife/Ice throwing may be potential hazards to community health and safety.

Impact Mitigation Measures :

- No shadow shaking or knife/ice throwing impact is anticipated. In case of receiving a complaint from relevant parties, shadow shaking or knife/ice throwing assessment will be repeated.
- The turbines will be provided with maintenance regularly.
- Unauthorized access to turbines will be prevented.
- Impact: There will be noise due to the operation of the turbines.

Impact Mitigation Measures :

- A noise survey will be conducted in critical receivers.
- A Noise Management Plan containing a monitoring plan, impact mitigation measures, and responses to complaints will be prepared.
- Turbines' periodical maintenance will be carried out.
- Relevant Management Plans/Procedures (For example, Traffic Management Plan, Training, monitoring) will be applied.
- In case of observing non-compliances during the monitoring, additional impact mitigation measures will be applied.
- Impact: Community health and safety may be negatively affected in case that a rotor wing fails and leaves the turbine.



Impact Mitigation Measures :

- Minimum setback distances will be applied.
- Due care will be taken for ensuring that all design parameters are correctly applied.
- The turbines will be provided with maintenance regularly.
- Unauthorized access to turbines will be prevented.
- Impact: Work Health and Safety issues will probably be of concern only during the maintenance of turbines.

Impact Mitigation Measures :

- Occupational WHS Policies / Plans / Procedures / Instructions, Emergency Response Plan, and Traffic Management Plan will be applied.
- Training will be provided.
- All activities will be inspected.
- Emergency drills will be conducted.
- All accidents/incidents will be reported and investigated.
- All suggestions/complaints will be reported according to the complaint mechanism procedure, and action will be taken accordingly. Site inspections will be made regularly.

#### 2.8 How Will the Birds Be Protected

In the last period, 8 bird studies were made in total, covering both the fall and spring migration seasons between 2015 and 2018. Questionnaire data indicates that 5,000 to 20,000 migratory birds may use the site every season. It can be concluded that the project area is not on the main migration route but on a small migration corridor. A crash risk analysis required for assessing the potential impact of a wind farm was not conducted. The impact on migratory birds is expected to be low.

Egyptian vulture (Neophronpercnopterus-White scavenger vulture) is the "MOST" endangered species, and documented to have appeared in the region several times in spring and fall. 2 to 4 birds were observed per season, indicating that the region can be used by at most 20-80 vultures in spring and fall. Bird watching studies must be conducted for the Egyptian vulture in fall and spring. Egyptian vultures must be watched from one/two station(s) in April and September.

A Crash Risk Assessment (CRA) based on the Scottish National Heritage Model (SNH) will be developed. According to the Crash Risk Assessment, for the Egyptian vulture to migrate, the Active Turbine Management and Shut-down system can be operated for 10 turbines (Demirciler T6-7-8-9-10-11 and Sarıtepe T17-18-19-20). It will be made sure that the operations do not result in the population impacts or deaths to result in increased deaths exceeding the thresholds defined in the Crash Risk Assessment.

A carcass study will be conducted to assess the impact on the scavengers (dogs, foxes, jackals, corvids, predators, etc.), and an observer determination rate assessment will be made to assess the accuracy of the survey. These studies are required for calculating the actual losses of existing turbines.

#### 2.9 How Will the Land Acquisition Be Realized



Reportedly, 95% of the Project site is within the forest land. The land acquisition process has been completed for all parcels except for one particular parcel. The land acquisition process for that parcel is ongoing. Most of the lands required for the Energy Transmission line are within the forest land. Along the Energy Transmission Line route, there are 2 expropriated parcels. TEİAŞ is currently the owner and operator of the Energy Transmission Line.

#### 2.10 How Many Employees Will Be Employed for the Project

İmbat Enerji and the subcontractor employ 35 employees. İmbat Enerji purchased the business without transferring any employees from Zorlu.

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## 3. How Will İmbat Enerji Do Training with the Stakeholders

In line with the IFC PS1 and EBRD PR 10 requirements, a Stakeholder Participation Plan (SPP) has been prepared for the operation stage of the Project. The SPP defines certain participation activities for target groups and each group.

SAR-DEM and İmbat Enerji have inclusive objectives in relation to developing sustainable relationships with the stakeholders throughout the Project lifetime and will continue to inform the stakeholders with several activities set out in detail in the Stakeholder Participation Program.

Imbat Enerji will consistently and timely provide the affected communities and the other stakeholders with transparent, informative materials. The tools and methods to be used for explaining the information during the operation of the Project are as follows:

- Internet / Website ( http://www.akfenren.com.tr/ )
- Information Forms (may be available on the website, in the construction office, and Headmen's office)
- Information meetings to be announced to the stakeholders 1 week prior to any meeting.

The first participation methods were meetings and interviews. The authorized persons or consultants of the former operating company visited the affected communities to meet with the local stakeholders. Imbat Enerji will continue utilizing these methods during the operation period. The operational managers of the SAR-DEM Project will maintain the regular dialog with the local Headmen of the affected settlements. Public institutions identified to be stakeholders will directly be visited regularly, and correspondences will be made if found required.

Information dissemination meetings will be open to the general public and will be announced via local media. Furthermore, these meetings will be held in the local village Headmen's offices. The other places than those frequently used by women will be used only for meetings with women.

As the project progresses, additional communication methods will be utilized for İmbat Enerji via Akfen's website and several public media tools.

## 4. How Will the Project Support the Social Development

According to the site representatives, there are several ongoing social responsibility projects that have been initiated by the former power plant operating company since 2015. These include scholarships, providing the local women's football club with funds, and providing the local residents with first aid trainings.

The former operating company carried out social responsibility projects in the scope of the SAR-DEM Project between 2015 and 2019.

- Atatürk Secondary School (2015-in-kind aid) concrete pavement project in the school yard.
- 60 university students selected by the Osmaniye Local Administration were provided with scholarships together with their families in Bahçe and Hasanbeyli Counties, Osmaniye Province (2016 and 2017 and 2018-financial aid)
- Osmaniye Demirspor Club Sponsorship (2016 & 2017 & 2018- financial aid)

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- Drink and potable water drillings and the other requests from the community (2016 and 2017, and 2018 SRP)
- Children's theater (requests (2016 and 2017 Social Responsibility Projects, Child Project Our Energy)
- The installation of Our Energy Project for Children's website, and its maintenance, and updates (2016 and 2017 Social Responsibility Projects, Child Project Our Energy)
- Bahçe Kaman Village Water Drilling (2016- financial aid)
- Aşağı Olucak Village Koran course renovation (2016-in-kind aid)
- Project of Contribution to Bahçe Governorship Preschool Education (2016- financial aid)
- Support to the Osmaniye Provincial Directorate of Health's Life Extending Project (2016 financial aid)
- Ramadan iftar dinner event (2016 in-kind aid)
- Ramadan iftar dinner event (2018 Social Responsibility Project)
- Ramadan iftar dinner event (2019 Social Responsibility Project)

## 5. How Can I Communicate a Complaint or Ask a Question

İmbat Enerji has created a complaint mechanism that can be internally and externally used by every stakeholder. Any comment or concern can be presented to the management's attention verbally or in writing (via regular mail or e-mail), or by completing a complaint form (an example is given in Appendix-1). Thanks to this mechanism, İmbat Enerji will respond to and solve the issues.

Stakeholders can also reach the General Directorate and Operations Official Communication Department by using the below contact information for making comments or filing complaints. All questions, comments, and complaints must initially be directed to Mr. Burak Solmaz.



## APPENDIX-1 Internal/External Complaint Form

Picture 9 SUGGESTION // COMPLAINT // FEEDBACK FORM



eknik Olm	ayan Özet	
DDEMDEC		

SIM SOYISIM	
ARİH	/ / 20 şirket; çalışanıyım çalışanı değilim
ILDIRIM KONUSU	
EHLİKE I	RAMAKKALA   ŞİKAYET   ÖNERİ   DİĞER
TALEPLERİNİZ &	ÖNERİLERİNİZ

Telefon No

Geri bildirim, talep ve öneriler kapsamında kişisel bilgilerinizi işbu Açık Rıza Beyanı ile tarafımıza sağlamakla bunların 6698 Kişisel Verilerin Korunması Hakkında Kanun (Kanun) çerçevesinde Şirketimiz, iştirakleri ve bağlı ortaklıkları tarafından belirttiğiniz geri bildirim, talep ve önerilerin araştırılması ve gerekli birimlere iletilmesi amaçları ile değerlendirilmesine ve işlenmesine, Şirketimiz, iştirakleri ve bağlı ortaklıklarının ticarî çalışmalarında kullanılmasına, yukarıda belirttilen aynı amaçlarla Şirketimiz, iştirakleri ve bağlı ortaklıkları ile anlaşmalı veya bağlantılı olduğu tüm 3.kişi veya kuruluşlarla paylaşılmasına onay vermektesiniz.

İMZA



#### Suggestion//Complaint//Feedback Form

With this form, you can give feedbacks in any kind of issues, including our activities, environmental interaction, social issues, employee rights, efficiency, 3<sup>rd</sup> party person/organization requests, suggestions, and complaints, etc. This way, it will be possible to inform the relevant directors about your requests.

NAME AND SURNAME

DATE://	20 I AM: O	A COMPANY EMPLOYEE	O NOT A COMPANY	EMPLOYEE	
SUBJECT					
HAZARD O	NEAR-MISS O	COMPLAINT O	SUGGESTION O	OTHER O	
YOUR REQUESTS AND SUGGESTIONS					

It is <u>suggested</u> to give your contact information for allowing us to inform you about the process.

Mail address:

Telephone number:

By giving your personal information with this Clear Consent Form in the scope of the feedbacks, requests, and suggestions, you consent that within the framework of the Law on the Protection of Personal Data no. 6698 ("Law"), this information can be evaluated and processed by our Company, our affiliates, and subsidiaries, for the purpose of considering your feedbacks, requests, and suggestions and communication them to the relevant divisions; can be used in the commercial works of our Company, our affiliates, and subsidiaries; and can be shared with our Company, our affiliates, and subsidiaries as well as all contracted or connected 3<sup>rd</sup> persons or organizations.