LBBW and KfW IPEX
Frankfurt, Germany

Karaburun Wind Power Plant Project

Non-Technical Summary

Doc. No. 18-017-TRK-H6 Rev. 3 – March 2019
Karaburun Wind Power Plant Project
Non-Technical Summary

<table>
<thead>
<tr>
<th>Rev.</th>
<th>Description</th>
<th>Prepared by</th>
<th>Controlled by</th>
<th>Approved by</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Final Issue</td>
<td>B. Göknel, H.M. İpek</td>
<td>M. Grundy</td>
<td>A. Gambellini</td>
<td>March 2019</td>
</tr>
</tbody>
</table>

All rights, including translation, reserved. No part of this document may be disclosed to any third party, for purposes other than the original, without written consent of RINA Consulting Mühendislik Limited Şirketi
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>1.1 WHAT IS THE PROJECT?</td>
<td>2</td>
</tr>
<tr>
<td>1.1.1 What are the main components the Project?</td>
<td>2</td>
</tr>
<tr>
<td>1.1.2 What are the main Project activities and Schedule?</td>
<td>3</td>
</tr>
<tr>
<td>1.2 WHO IS DEVELOPING THE PROJECT?</td>
<td>3</td>
</tr>
<tr>
<td>1.3 WHERE IS THE PROJECT LOCATED?</td>
<td>3</td>
</tr>
<tr>
<td>1.4 HOW WILL MATERIALS AND THE WIND TURBINES GET TO SITE?</td>
<td>5</td>
</tr>
<tr>
<td>1.5 HOW DOES A WIND TURBINE GENERATE ELECTRICITY?</td>
<td>6</td>
</tr>
<tr>
<td>2  PROJECT RATIONALE</td>
<td>7</td>
</tr>
<tr>
<td>2.1 WHY IS THE PROJECT NEEDED?</td>
<td>7</td>
</tr>
<tr>
<td>2.2 WHAT ARE THE PROJECT BENEFITS?</td>
<td>7</td>
</tr>
<tr>
<td>3  POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND BENEFITS OF THE PROJECT</td>
<td>7</td>
</tr>
<tr>
<td>3.1 THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROCESS</td>
<td>7</td>
</tr>
<tr>
<td>3.2 WHO HAS BEEN CONSULTED AND WHAT CONSULTATION WILL BE UNDERTAKEN IN THE FUTURE?</td>
<td>8</td>
</tr>
<tr>
<td>3.3 WHAT ARE THE CURRENT ENVIRONMENTAL AND SOCIAL CONDITIONS AT THE SITE?</td>
<td>8</td>
</tr>
<tr>
<td>3.4 SUMMARY OF ENVIRONMENTAL &amp; SOCIAL IMPACTS AND BENEFITS</td>
<td>9</td>
</tr>
<tr>
<td>3.5 HOW WILL THE IMPACTS BE MANAGED AND REDUCED?</td>
<td>12</td>
</tr>
<tr>
<td>4  ADDITIONAL INFORMATION</td>
<td>12</td>
</tr>
<tr>
<td>4.1 HOW DO I FIND OUT MORE ABOUT THE PROJECT?</td>
<td>12</td>
</tr>
<tr>
<td>4.2 HOW DO I HAVE MY SAY?</td>
<td>12</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

Lodos Karaburun Enerji Üretim A.Ş. (Lodos / the Sponsor) has established a 120 MW wind farm (Phase 1) in Karaburun, İzmir region and is planning an additional 145 MW extension (Phase 2) to this project.

Financial Institutions are considering the provision of financial support to the Project. An Environmental and Social Due Diligence (ESDD) has therefore been undertaken in compliance with the high standards required by these organisations is in line with their Guidelines and Policies. Also, a nationally required Environmental Impact Assessment (EIA) was prepared and approved by the Turkish authorities in June 2018.

Lodos is committed to demonstrate that it is working to national legislation and international good practice standards.

In line with this commitment this Non-Technical Summary (NTS) presents an overview of the key findings of the EIA. This NTS briefly describes the project, the main findings of the studies undertaken to assess the effects of the planned wind farm and outlines measures taken to minimise such environmental and social effects.

The purpose of this NTS is to give information to everyone that may be interested in the Project.

1.1 WHAT IS THE PROJECT?

For the existing Phase 1 project, the total installed capacity of the wind farm is 120 MW comprising of:

- 20 x 3MW Enercon E-82 turbines with a hub height of 84.6 m and rotor diameter of 82 m; and
- 30 x 2MW Enercon E-82 turbines with a hub height of 84.6 m and rotor diameter of 82 m.

For the proposed Phase 2 project, the total installed capacity of the wind farm will be 132 MW comprising of:

- 22 x 4MW Enercon E-126 turbines with a hub height of 116 m and rotor diameter of 127 m; and
- 11 x 4MW Enercon E-126 turbines with a hub height of 86 m and rotor diameter of 127 m.

After installation of the additional 33 wind turbine generators (WTGs), the total generation capacity of the project will be 252MW with a total expected annual electricity production of 790 GWh that would provide electricity to approximately 295,000 households.

1.1.1 What are the main components the Project?

In addition to the installation and operation of WTGs a wind farm also requires supporting infrastructure, typically including:

- Access routes
- Underground cabling
- Substation
- Connection to the national electricity grid
- Warehouses and offices.

Access routes

Within the scope of the project, a network of access tracks will be required for installation of the proposed WTGs during the construction, as well as providing access to the turbines for maintenance purposes during operation. The new access tracks will follow the existing network for the Project, where possible; however, additional access tracks will need to be created for some of the new WTGs. There will be a total of 20km of new access routes; whilst the total length of the existing roads is 35km.

Underground cabling

The connection between the WTGs and the existing substation will be made through underground medium voltage transmission cables to be in trenches and buried. Such trenches would typically have a width of 0.6m and a depth of 0.8m. The total trenches required for the Project for the transmission cables is around 80km.
Substation
A dedicated substation has already been built for the Phase 1 project. This occupies around 1.2 ha, and will be expanded by 0.5 Ha to accommodate Phase 2 project. The Substation is a high voltage transformer substation that collects and converts the output from the turbines to a higher voltage (from 33 kV to 380 kV) that is appropriate for transmission.

Connection to the national electricity grid
A 16 km 380kV overhead transmission line was constructed as part of Phase 1 project and connects the project to the national electricity grid via the Karaburun Havza substation, which is owned and operated by Turkish Electricity Transmission Company (TEIAS). The transmission line was constructed by Lodos and then handed over to TEIAS. No upgrades or additional transmission lines are required for the Phase 2 project.

Offices and Warehouses
Offices and warehouse have been constructed within the substation compound area as part of Phase 1. No additional permanent offices or warehouses are required for the Phase 2 project, other than the MV cubicle house to be built within the substation extension area.

1.1.2 What are the main Project activities and Schedule?
The construction of the Phase 1 project started in 2011; components of the turbines were transported to the site from October 2012 to June 2013, and turbines were erected. Phase 1 became gradually operational in Spring 2013 and the completely operational in September 2013.

The new WTGs are planned to be brought into operation in a phased approach starting in April 2019 with Lodos planning for the Phase 2 project to be fully operational by the end of September 2019.

1.2 WHO IS DEVELOPING THE PROJECT?
The project is being developed by Lodos Karaburun Enerji Üretim A.Ş. The Company was founded in 1999 and it is owned by Alto Holding Group.

1.3 WHERE IS THE PROJECT LOCATED?
The project is located in Izmir Province, in the northern part of the Karaburun Peninsula and around the village of Yaylaköy. The locations of the existing 50 WTGs and planned 33 WTGs are shown in Figure 1.1

The other settlements around the Project site are as follows:
- Yeniliman (1.7 km north)
- Tepeboz village (0.7 km north)
- Bozköy (1.9 km north),
- Karaburun District (5.4 km east),
- Küçükbağçe (2.6 km southwest)
- Salman (3.8 km west),
- Parlık (3.6 km west),
- Sarpincik (3.0 km northwest), and
- Hasseki (2.3 km northwest).
Figure 1.1: Location of the Wind Turbines
As can be seen from Figure 1.1, the new WTGs will not be any closer to villages in the area; the WTGs located closest to Yaylaköy, Tepeboz and Küçükbahçe villages are as follows:

- existing WTG-41 located 681 m northwest of Yaylaköy,
- planned WTG-75 located 930 m southeast of Yaylaköy,
- existing WTG-1 located 700 m south of Tepeboz (up on the steep slope), and
- planned WTG-64 located 2160 m east of Küçükbahçe.

In addition to the Karaburun WPP Project, the Karaburun Peninsula also hosts the following WPP projects (see Figure 1.2):

- Mordoğan WPP (Egenda Ege Energy Generation Inc.) (5 WTGs in operation),
- Mordoğan WPP (Ayen Energy Generation Inc.) (15 WTGs in operation + 5 WTGs planned),
- Yaylaköy WPP (Yaylaköy Electricity Generation Inc.) (5 WTGs in operation sited within the Karaburun RES project area),
- Salman WPP (Öres Electricity Generation Inc.-Fina Energy) (10 WTGs in operation), and
- Sarpıncık WPP (Çalık Electricity Generation Ltd. Co.-Çalık Energy) (14 WTGs in operation).

1.4 HOW WILL MATERIALS AND THE WIND TURBINES GET TO SITE?

The turbine components are planned to be transported by ships to Alsancak Port and subsequently transported to the project site by trucks and/or long-vehicle trucks over a distance of approximately 120 km, using the road on the western side of the island and entering the project area from the south (see Figure 1.3). This route is proposed as the road is less narrow and provides easier access to the site compared with access from the eastern side of the peninsula.
1.5 **HOW DOES A WIND TURBINE GENERATE ELECTRICITY?**

Wind turbines operate on a simple principle. When wind blows, it carries kinetic energy which can move objects. A wind turbine has two or three propeller-like blades around a rotor; the blades are designed to rotate when hit by the wind. Wind turbines generally start operating at a wind speed of 3-5 meters per second (a gentle breeze); as the blades of the turbine spin they turn a shaft in the nacelle (the box on top of a wind turbine), this spins a generator (also built into the nacelle) to create electricity. The generated power is then regulated by a transformer to the right voltage and fed into the national grid system.
2 PROJECT RATIONALE

2.1 WHY IS THE PROJECT NEEDED?

Wind power is a clean energy source that can be relied on for the long-term future. A wind turbine creates reliable, cost-effective, pollution free energy. It is affordable, clean and sustainable. Because wind is a source of energy which is non-polluting and renewable, they create power without using fossil fuels, without producing greenhouse gases or radioactive or toxic waste. There are potential environmental and social impacts associated with wind farms which are identified in other sections, along with information on the mitigation actions that will reduce the impacts of the Project.

Turkey's electricity consumption rose by 5.6% in 2017 compared to the previous year, 294.9 billion kWh, while electricity generation increased by 7.7% compared to the previous year and amounted to 295.5 billion kWh. In 2017, 37% of Turkey’s electricity production was from natural gas, 33% from coal, 20% from hydro power, 6% from wind, 2% from geothermal energy and 2% from other sources.

Turkey has developed and implemented a National Renewable Energy Action Plan to reduce its dependence on energy from external sources and plans to maximize the use of local resources based on the goals to combat climate change. Therefore, Turkey promotes to increase the share of renewable energy in the national energy composition and the government set some targets for increasing the use of renewable energy sources. The goal of Turkey for 2023 is increasing the share of total installed power of renewable energy sources more than 30%; the proposed Project will play a role in achieving this goal.

2.2 WHAT ARE THE PROJECT BENEFITS?

Impacts on climate change due to the operation of a wind farm are considered to be beneficial, as emissions of the greenhouse gas carbon dioxide (CO₂) will be avoided due to generation of electricity by the renewable energy source wind. Given an expected generation of net 790 GWh electricity per annum (both by Phase 1 and 2), the average CO₂ emission savings will be around 417,120 tonnes per year (corresponds to the annual emission of appr. 91,000 passenger vehicles) based on a carbon intensity of Turkey’s electricity market of 528 gCO₂eq/kWh.

3 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND BENEFITS OF THE PROJECT

3.1 THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROCESS

An ESIA was prepared in 2009 for Phase 1 project based on IFC Performance Standards and EHS Guidelines, as the project was seeking international financing. The ESIA was subsequently updated in 2011 to address changes in the original design.

A national EIA was produced for Phase 2 project in February 2018 and “EIA Positive Decision” was obtained from the Ministry of Environment and Urbanization (MoEU). The EIA is comprehensive enough and supported with many assessment studies, including bird & bat monitoring, flora & fauna assessment, cumulative impact assessment of the flora and fauna (including birds and bats), etc.

Through these studies, environmental and social impacts of Karaburun WPP Project have been assessed in accordance with the national and international requirements. Both quantitative and qualitative methods have been applied to determine the significance of any potential impact and to identify ways of reducing the impacts of the Project. Where significant impacts were identified options for avoiding, reducing or compensating for these were identified. Lodos is committed to undertaking the defined measures to be set out in an Environmental and Social Management and Monitoring Plan (ESMMP).

1 A typical passenger vehicle emits about 4.6 tonsCO₂/yr.
3.2 WHO HAS BEEN CONSULTED AND WHAT CONSULTATION WILL BE UNDERTAKEN IN THE FUTURE?

During the Phase 1 project, interviews were conducted with local people; key informant questionnaires were held with village headmen; semi-structured interviews were done with government officers, the mayor and local NGO representatives; focus group meetings were held with women and goat shepherds. Public participation meeting was organized for the stakeholders, with authorities, administration of the district, municipalities, local communities were informed about the process via e mails, public notifications and newspapers.

For Phase 2 of the project, a Public Consultation Meeting was held in 2018, at Yaylaköy village coffeehouse in order to engage with the public on the EIA process, inform them about the project and to get their opinions and suggestions.

Small discussion meetings will be planned in each of the affected settlements to engage with those who may be directly affected. Where appropriate, additional meetings will be arranged with different community groups, such as women and young people.

A stakeholder engagement plan (SEP) has been developed, which identifies stakeholders who will be consulted during the construction and operation of the Project. A grievance mechanism will be available for receiving grievances from the local community so that appropriate corrective actions can be taken. The project website (www.lodoskaraburun.com) will also provide information about the project activities on a regular basis and the content will be updated periodically.

3.3 WHAT ARE THE CURRENT ENVIRONMENTAL AND SOCIAL CONDITIONS AT THE SITE?

In Karaburun Peninsula mountain ridges extends in north-south orientation that are divided by two large north-south oriented valleys in the northern area connecting to the sea. The valleys pass by the villages of Bozköy (eastern valley) and Hasseki (western valley). Within 1-2 km from the coastline, elevations reach 500 m to over 600 m at the highest points. The villages are situated within the valleys or along the coast line.

The project is located on land with a remote coastal position and steep undulating and complex topography on all sides, dropping steeply towards the sea in the north and west. The area is generally composed of rocky, shrubby and shrubland, with occasional forested areas. The project site is generally open to members of the public and the WTGs are interspersed between open grazing land, shrubland and wooded areas.

Karaburun Peninsula is defined as “Key Biodiversity Areas (KBA)” by Doğa Society (Doğa Derneği) and also listed in BirdLife International’s Important Bird Areas (IBA) Report with the aim of preserving this natural area. Thereof, the EIA studies focussed on assessment of natural habitats and the existing fauna, especially birds and bats, to identify any potential impact and mitigation measures to be needed.

According to the census of 2017, the population of Karaburun District is recorded as 9,812. Unlike many coastal regions in Turkey, Karaburun Peninsula is far from mass tourism; the Peninsula mainly serves sea, diving, nature walks, village, eco and agro tourism.

The main economy of Karaburun is based on agriculture, with fishing providing another source of income. There are some manufacturing based industries in the district, including a few stone quarry and concrete plant businesses. There are also some business involved in olive oil production and small enterprises for maintenance and repair. There is clay mining activity close to Yaylaköy (raw material for ceramics industry) and many lorries use public roads nearby each day.

Yaylaköy, Tepeboz and Küçükbağçe settlements are the nearest settlements to the project site. The village of Yaylaköy is located in the centre of the wind farm area in the south. Being surrounded by the WTGs of Lodos (Karaburun WPP) and Yaylaköy WPP, Yaylaköy is the village that is most susceptible to the potential environmental and social impact associated with the operation of WTGs, although they are located at a significant distance to the village; the nearest WTGs to Yaylaköy are: the existing WTG-41 located 681 m northwest of Yaylaköy and the planned WTG-75 located 930 m southeast of Yaylaköy. The residents of Yaylaköy are mainly dealing with goat breeding.
3.4 SUMMARY OF ENVIRONMENTAL & SOCIAL IMPACTS AND BENEFITS

The main environmental and social impacts (positive and negative) identified in the EIA study for the construction and operation phases of the Project and the mitigation measures which will be implemented to remove or reduce the level of impact is presented in Table 3.1.

Table 3.1: Potential Environmental and Social Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Landscape and visual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>The windfarm has the potential to result in visual impact on nearby residential receptors.</td>
</tr>
<tr>
<td>Because the project site has a complex topography, the WTGs are generally not visible from Karaburun District and also from some other settlements near the coast. However, the WTGs are visible from the settlements located at high elevations, as well as those located on the northern shores close to WTG-1.</td>
</tr>
<tr>
<td>A landscape and visual impact assessment has been carried out for Phase 1 project through map illustrations and photomontage studies. A Zone of Theoretical Visibility (ZTV) map for Phase 1 &amp; 2 project will be developed to show where the project is theoretically visible from taken into consideration the complex terrain. Relevant map illustrations of ZTV and, if required, photomontage studies, will be provided on Project website.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise measurements were undertaken in 2013, 2014, and 2015, when the Phase 1 project was operational; all results were in compliance with the national and international requirements.</td>
</tr>
<tr>
<td>A noise modelling study was performed for construction of the Phase 2 project and also for operation of the completed project (Phase 1 &amp; 2). The modelled cumulative noise level complies with the national and international standards, with the Phase 2 project not significantly adding to the current noise levels in the project area.</td>
</tr>
<tr>
<td>A Noise Management and Monitoring Plan will be developed to manage noise impact and periodical noise monitoring activities will be planned. Standard noise mitigation measures will be implemented during construction phase of the Phase 2 project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shadow flicker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotating blades of the wind turbines can create a flickering effect which can cast shadows periodically over settlement areas.</td>
</tr>
<tr>
<td>The shadow flicker impact assessment concluded that shadow flicker will occur to a very limited extent in Yaylaköy Village and a small part of Tepeboz Village depending on the prevailing wind direction and the angle of the sun. The impact on the residential areas is limited to a maximum of approximately 10 hours per year.</td>
</tr>
<tr>
<td>According to IFC EHS Guidelines “shadow flicker effect experienced at a sensitive receptor should not exceed 30 hours per year and 30 minutes per day on the worst affected day”; therefore, shadow flicker associated with the project is not regarded as significant.</td>
</tr>
<tr>
<td>Should impacts occur these will be managed through the community grievance mechanism to identify receptors that adversely affected, allowing appropriate mitigation to be implemented.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following the Phase 2 expansion the Karaburun WPP will comprise of a total 83 WTGs with a total of 252MW installed capacity. In addition to this project, the Karaburun Peninsula hosts 5 other wind farm projects totalling an additional 49 turbines (totalling 121 MW). These projects are distributed over the Peninsula with an approximate area of 430 km².</td>
</tr>
<tr>
<td>When projects are located in the same areas this can give rise to cumulative impacts, principally regarding landscape and visual, environmental noise, and on birds and bats during operation. These cumulative impacts will be managed by implementation of the specific management and monitoring plans described in this table.</td>
</tr>
</tbody>
</table>
Ecology and Nature Conservation

**Designated sites for nature conservation**

The Project site does not lie within a naturally protected area that has local or international legal status. However, Karaburun Peninsula is defined as a “Key Biodiversity Areas (KBA)” by Doğa Society (Doğa Derneği). The KBA approach is used to determine the most sensitive and unique natural areas of the earth by searching near extinct or specially distributed species and aims to preserve these areas. Karaburun Peninsula is also listed in BirdLife International’s Important Bird Areas (IBA) Report, which lists the valuable areas around the world based on bird species and the habitats they use.

A Biodiversity Management Plan (BMP), including Ornithological and Bat Management Plans, will be developed to set up the strategies needed to reduce or eliminate the negative effects on wildlife and habitats. The BMP will be implemented throughout the project life and regularly updated based on the monitoring data acquired in time.

**Habitats and flora**

The vegetation of Karaburun Peninsula is a secondary vegetation of shrubland (maquis and frigana), formed by the sequential change of the Calabrian pine (Turkish pine) forests after fire. Accelerated evaporation because of the blowing winds adversely affects olive farming activities especially in windy open areas. The agricultural productivity is not high in these areas, therefore there large numbers of goat breeding and a small quantity of cattle is traditionally continued.

During the land preparation activities for WTG footprints and access roads, nearly 150 trees are planned to be removed. In order to offset this impact, the Project plans to plant 10-15 times the number of trees removed in areas to be defined by the Regional Directorate of Forestry. A Tree Removal and Replanting Plan/Programme will be developed to ensure rehabilitation of all habitats as early as possible using native flora; rehabilitated habitats will be monitored in terms of biorestoration success, growth of native species as targeted.

A Biodiversity Management Plan (BMP) will be developed and implemented to mitigate the construction related impacts, mainly due to land clearance for WTG footprints and access routes. The BMP will include mapping of endemic, rare and endangered plant species based, collection of seeds, creation of ex-situ populations, in-situ planting, population census, and delivery of some of the seeds to the relevant seed banks.

**Fauna**

The potential for alteration of terrestrial habitat associated with the construction and operation of wind turbines is limited given the relatively small individual footprints of these facilities.

The arid and maquis vegetation that is dominant at the Project area constitutes a habitat suitable principally for the land reptilian species. 11 reptilian species were recorded, one of them is land tortoise (Testudo graeca) which is classed as vulnerable “VU” by IUCN. None of the amphibian and mammalian species that potentially exist within the Project area have a protection status. Mediterranean Monk seal (Monachus monachus) known to exist in the caves on the coastline, which is classified as “critically endangered” (CR) on global scale and Turkish population is known to be under threat due to anthropogenic impacts. There is a significant distance (2km) between the nearest WTG and the coast, where Mediterranean Monk seal caves potentially be located. The potential impact on fauna other than birds and bats is considered to be not significant.

**Birds**

Ornithological assessment and monitoring studies are being performed at the Project site since the performance of the ESIA studies for Phase 1 project in 2009. These studies showed that some bird species can be at risk of collision with operational WTGs. However, during the routine carcass searches being carried out within the project site, no collision victims has been identified so far. This might be due to high rate of scavenger removal and/or low observer efficiency because of the challenging vegetative environment. Mitigation measures therefore include development of an ornithological management plan as part of a BMP. The Plan will include details of the proposed monitoring survey methods and methods for collision searching (including trials for search efficiency and scavenger removal) and an adaptive management plan, with a review after each year of implementation to determine whether there may still be any residual risk of impact to birds. The Plan will also include a review of possible positive enhancement measures that could be delivered to ensure no net loss to the IBA.
Bats

A substantial amount of baseline data has been collected for bats since 2013. Two of the bat species recorded during the baseline surveys, *Rhinolophus euryale* and *Miniopterus schreibersii*, are classed as globally ‘Near-threatened’ by IUCN. The assessments noted particularly the presence of bat roosts in caves in the vicinity of (but not within) the wind farm site.

A Bat Management Plan will be developed as part of the BMP to fully implement the bat mitigation measures, including curtailment of higher risk turbines and provision of a large-scale bat box scheme. The Plan will be regularly updated based on the monitoring data acquired in time.

Community Health and Safety

In order to preserve community health and safety, appropriate blade throw management strategies are implemented. Ice throw is not considered to represent a significant risk for the project due to the temperate climate conditions.

The electromagnetic field (EMF) measurements conducted around the WTGs and the substation, including Yaylaköy and Tepeboz villages, showed that the EMF level is well below the required limits, and that EMF impact observed at the project site is considered as negligible.

Any impact to roads, road infrastructure or private property along the road side as a result of transporting equipment to site will be managed with a Traffic Management Plan. The plan will cover actions for minimising traffic impacts on roads and the community.

A Community Health Safety and Security (HSS) Plan and Worker Code of Conduct will be developed to prevent any risks to community. In addition, an Emergency Preparedness and Response Plan (EPRP) that includes specific scenarios and measures also to preserve community health, safety, and security will be developed. The EPRP should cover both construction and operation phase of the project.

Land Acquisition, Physical and Economic Displacement

The project site is comprised of forestry land, agricultural land, and pastureland. The land needed for the extension project is owned by the Treasury and General Directorate of Forestry, with a limited area of land (5 plots) owned by private persons.

Although the privately owned lands are registered as agricultural land, currently no cultivation activities take place on the land, and therefore the land acquisition required for the project is likely to have no significant impact on livelihoods. The land acquisition process will also not result in any physical displacement. After installation of the WTGs, the surrounding lands can still be used as pasture lands.

A Land Acquisition and Compensation Framework/Plan (LACP) will be developed to compensate any loss of land or livelihoods that may arise as a result of the project, as well as monitor any changes in livelihoods.

Employment

Currently 23 workers have been employed by Lodos for operation of the existing project. The workers are mainly employed from the local communities.

Some employment opportunities will be generated during the construction phase of the Phase 2 project. Unskilled positions will be filled by locals where possible.

Cultural Heritage

Direct impacts on known archaeological or cultural heritage features are not anticipated given that the site is not part of any nature protection zone or listed as heritage site.

Given there may still be a potential to uncover previously buried archaeology (chance finds) during construction works, Chance Finds Procedure will be implemented; this will provide the steps for stopping work and reporting finds to the appropriate authority for assessment in case any archaeological elements are found.
3.5 HOW WILL THE IMPACTS BE MANAGED AND REDUCED?

An Environmental Social Management and Monitoring Plan (ESMMP) will be developed covering all phases of the Project. The ESMMP will provide a framework for wider environmental and social management systems (ESMS) that will be created for the construction and operation phases. The ESMS developed will be in line with the national legislation and international requirements.

A general external stakeholder and community grievance mechanism is developed as part of the SEP which includes provisions for collecting and responding to stakeholder grievances.

The Project Company and the EPC contractor will employ environmental and health and safety (EHS) staff as well as community liaison officer (CLO) to oversee the implementation of environmental and social management and stakeholder engagement during construction and operation.

4 ADDITIONAL INFORMATION

4.1 HOW DO I FIND OUT MORE ABOUT THE PROJECT?

The SEP has been developed for the Project to guide disclosure of public information and stakeholder engagement for the Project. The SEP will be reviewed and updated on a regular basis and updated as necessary. The SEP includes the following:

- Identification of stakeholders and other affected parties
- Public consultations and information disclosure requirements
- Stakeholder engagement programme including methods of engagement and resources
- A grievance mechanism

All requests for further information may be addressed to the contact presented below:

Mr. Metin Can, Project Coordinator
Lodos Karaburun Elektrik Üretim A.Ş.
Bankalar Yankapı Tenha Sok.
Uçarlar Han. No:8  34420 Karaköy - İstanbul
Phone: 0 212 256 8190 - Fax: 0212 256 8197
E-mail: altoholding@altoholding.com

4.2 HOW DO I HAVE MY SAY?

All concerns and requests can be submitted by filling the grievance form given in Appendix A and submitting by post or e-mail or by telephoning the company on the number as given above.
Appendix A
Grievance Form
Doc. No. 18-017-TRK-H6 Rev. 3 – March 2019
## GRIEVANCE FORM

### Information about complainant

<table>
<thead>
<tr>
<th>Name and Surname</th>
<th>Only for internal use: How is the complaint made?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. In person</td>
</tr>
<tr>
<td></td>
<td>2. By Phone</td>
</tr>
<tr>
<td></td>
<td>3. By mail</td>
</tr>
<tr>
<td></td>
<td>4. By e-mail</td>
</tr>
<tr>
<td></td>
<td>5. Other (specify)</td>
</tr>
</tbody>
</table>

| Date             |                                                   |
| Address          |                                                   |
| Phone            |                                                   |
| e-mail           |                                                   |

| Name and Surname of the person taking the complaint | Date of complaint and signature : |

### DETAILS OF COMPLAINT:

**Case/Complaint Date**

- 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?

**Only for internal usage: Record and Respond**

<table>
<thead>
<tr>
<th>Complaint reference number:</th>
<th>Date of complaint log:</th>
</tr>
</thead>
</table>
| Name of personnel recording the complaint | Copy transfer:
  - Relevant unit
  - Other (specify)....................... |
| Required action:            |                        |

**Only for internal usage: Status of compliant**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complaint is closed</th>
</tr>
</thead>
</table>