

Gaia Wind Power Plant (WPP) Project

Non-Technical Summary (NTS)

PREPARED FOR

ENERJÍ GA ÜRETÍM

Enerjisa Enerji Üretim A.Ş.

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
CLO	Community Liaison Officer
Client	Enerjisa Enerji Üretim A.Ş.
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management System
ERM	Environmental Resources Management GmbH
ETL	Energy Transmission Line
IFC	International Finance Corporation
IFIs	International Financial Institutions
MoEUCC	Ministry of Environment, Urbanization, and Climate Change
NDCs	Nationally Determined Contributions
NTS	Non-Technical Summary
OECD	Organisation for Economic Co-operation and Development
PSs	Performance Standards
RES	Renewable Energy Source
SEP	Stakeholder Engagement Plan
WPP	Wind Power Plant
YEKA	Yenilenebilir Enerji Kaynak Alanları (Renewable Energy Resource Areas)

1. INTRODUCTION

1.1 PROJECT BACKGROUND

The YEKA (Renewable Energy Resource Area) scheme is a national program in Türkiye to promote large-scale renewable energy projects through government tenders. Under YEKA WPP-2, Enerjisa Enerji Üretim A.Ş. ("Enerjisa Üretim" or "Enerjisa") plans to establish GAIA Wind Power Plant ("the Project or "GAIA WPP") within the borders of Turgut and Kavakçalı Neighborhoods, Köyceğiz and Ula Districts, Muğla Province of Türkiye. The projected annual electricity production is estimated at 257,720,400 kWh/year.

The local Environmental Impact Assessment (EIA) Report was prepared by a local consultancy and EIA Positive decision was issued by the Ministry of Environment, Urbanization, and Climate Change (MoEUCC) on 6th of June 2024.

For financing, Enerjisa aims to pursue a finance structure involving potential international and/or local Lenders. Compliance with the Lenders' requirements is mandatory for projects receiving funding from International Financial Institutions (IFIs). The Environmental and Social Impact Assessment (ESIA) is a requirement for projects seeking financing from lenders that adhere to the European Bank for Reconstruction and Development (EBRD) Environmental and Social Requirements (ESRs) and International Finance Corporation (IFC) Performance Standards (PSs).

Environmental Resources Management GmbH (ERM) was contracted by Enerjisa Üretim to conduct the ESIA for the GAIA WPP. This document is the Non-Technical Summary (NTS) for the GAIA WPP Project.

1.2 PROJECT OWNER

The Project planned to be constructed and operated by Enerjisa Enerji Üretim A.Ş.

Enerjisa Üretim (previously Enerjisa) was established in 1996 and the company focuses on electricity generation from a diversified portfolio including natural gas, hydro, wind, solar, and lignite, with an installed capacity exceeding 4,000 MW.

The following chart illustrates the Enerjisa Üretim's Environmental, Social and Governance (ESG) structure which outlines key roles for the YEKA-2 Projects.

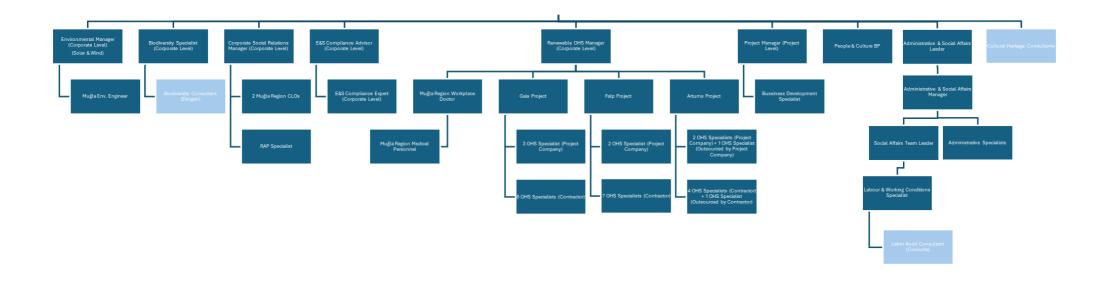


FIGURE 1-1 ORGANISATIONAL CHART OF ENERJISA ÜRETİM



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1.3 PROJECT RATIONALE

Wind energy is a renewable and low-emission source of electricity generation. The proposed Project is aligned with the Türkiye's Nationally Determined Contributions (NDCs) under the Paris Agreement, which prioritizes renewable energy development to achieve national decarbonization goals. Türkiye's NDC outlines commitments to enhance renewable energy capacity, reduce dependency on fossil fuels, and strengthen energy security through sustainable practices.

In addition to supporting national climate objectives, the Project is anticipated to have positive impacts on local communities. These may include potential improvements in air quality through reduced greenhouse gas emissions, as well as opportunities for local employment during construction and operation phases. The Project may also contribute to regional economic activity and support sustainable development efforts in the area.

1.4THE GOAL OF THIS DOCUMENT

The NTS provides an overview of the preliminary findings from the ESIA, which is currently under development by ERM1. The purpose of this document is to present key information in a clear and accessible format for the public and Project stakeholders.

1.5 STANDARDS APPLIED BY THE PROJECT

The Project will adhere to the following standards;

- National environmental, social and health & safety regulations
- EBRD's Environmental and Social Policy (2024)
- IFC's Performance Standards on Environmental and Social Sustainability (2012)
- Equator Principles IV (2020)
- EIB's Environmental and Social Standards (2022)
- IFC, Environmental, Health and Safety (EHS) General Guidelines
- IFC, EHS Guideline for Wind Energy (2015)
- IFC EHS Guidelines for ETLs (2007)
- IFC/EBRD Worker's Accommodation: Processes and Standards (2009)
- IFC, Good Practice Handbook: Land Acquisition and Involuntary Resettlement (2023)
- IFC/KfW/EBRD Post-construction Bird and Bat Fatality Monitoring for Onshore Wind Energy Facilities in Emerging Market Countries - Good Practice Handbook (2023)
- Any international conventions and treaties relating to the environment and social performance that Türkiye has ratified or is part of.

The most stringent requirement between national legal requirements and international requirements will be the Project standard.

¹ As the ESIA study is yet to finalize, this NTS may be updated as additional data and assessments become available.



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1.6 PROJECT CATEGORISATION

According to the environmental and social categorization criteria outlined in the relevant standards mentioned in Chapter 1.5, analysis of available data, review of the local EIA and observations during site visits, the Project has been classified as "Category B".

2. PROJECT DESCRIPTION

2.1 PROJECT COMPONENTS

2.1.1 WIND TURBINES

A wind turbine is a tall structure with three large blades that turn with the wind to produce electricity. Within the scope of the Project, a total of 20 turbines each with a capacity of 4.2 MWm/4.2 MWe are planned to be installed. The wind turbine to be used in the Project consists of a 111-meter-high tower and three rotating blades with a total blade span (diameter) of 138 meters. The general appearance of the selected wind turbine model is shown in the Figure 2-1 below.



FIGURE 2-1 GENERAL APPEARANCE OF THE PROJECT TURBINE (ENERCON E-138 EP3 E2 / IEC S CLASS)

2.1.2 SWITCHYARD

A switchyard is a facility where electricity from wind turbines is collected and directed into the national grid. Within the scope of GAIA Project, a switchyard covering an area of 20,044 m² will be constructed. An administrative building is planned to be constructed within the designated



switchyard area to accommodate the needs of personnel and provide work offices for technical operations.

2.1.3 ACCESS ROADS

Access to the Project site will be provided via an existing connection road from the D330 highway in the Çakmak-Turgut direction, located approximately 7 km northwest of the western border of the WPP. ² Additionally, an access road will be constructed to provide interconnection between the turbines. During the construction phase, existing roads will be used as much as possible with necessary improvements, widenings and deviations. A Route Survey was developed in 2024 for the Project.

2.2 TEMPORARY FACILITIES

2.2.1 MOBILIZATION AREAS

Accommodation, for most of the contractor workforce, during the construction phase will be provided within a mobilization area set up in Turgut neighborhood. The potential establishment of additional camp areas by other contractors (i.e. ETL) has not yet been confirmed. Based on current projections, the peak accommodation requirement is not expected to exceed 180 people. The number of workers simultaneously present at the site during peak construction activities is anticipated to be 225.

2.2.2 EXCESS EXCAVATION MATERIAL STORAGE AREAS

A total of five temporary excess excavation material storage areas has been designated for the storage of excess excavated soil during the construction phase of the Project. According to the latest additional site information, it is planned to balance the cut-fill of the excavated material. Hence, no storage or export of the material will be needed as per the plan.

2.3 ASSOCIATED FACILITIES

2.3.1 ENERGY TRANSMISSION LINE (ETL)

The connection between the switchyard and the national grid will be established through a 154 kV transmission line, which will be part of the 26 km-long energy transmission line (ETL) planned for the Project. The planned transmission line is presented in Figure 2-2 and Figure 2-3.

2.4 PROJECT LOCATION

The Project will be developed within the borders of Turgut and Kavakçalı Neighborhoods, Köyceğiz and Ula Districts of Muğla Province in Türkiye.

The nearest settlements within a 2 km buffer of Project boundary are:

- Turgut Neighborhood 1 km north of the Project;
- Kavakçalı Neighborhood 2 km southwest of the Project.

The layout of the Project is given in Figure 2-2 below.

² Please refer to Section 4.2.



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GAIA WIND POWER PLANT (WPP) PROJECT
PROJECT DESCRIPTION

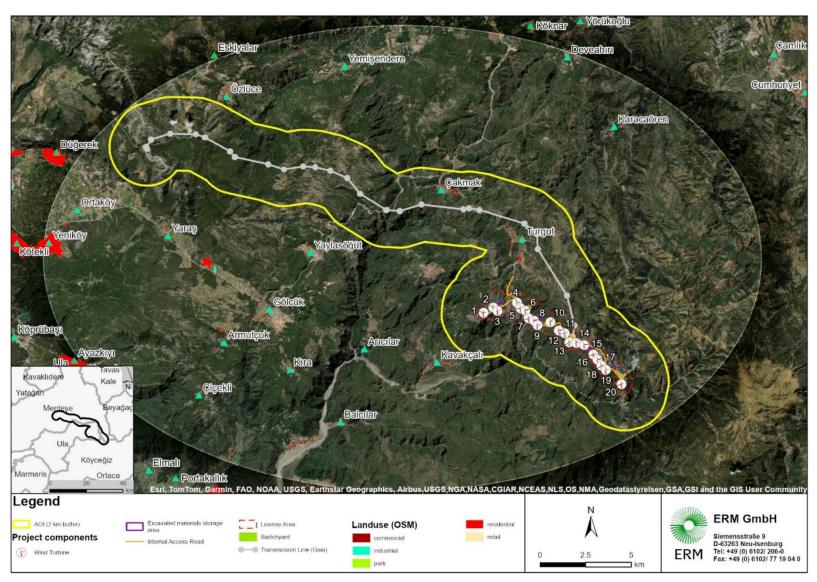


FIGURE 2-2 PROJECT LAYOUT -1

GAIA WIND POWER PLANT (WPP) PROJECT
PROJECT DESCRIPTION

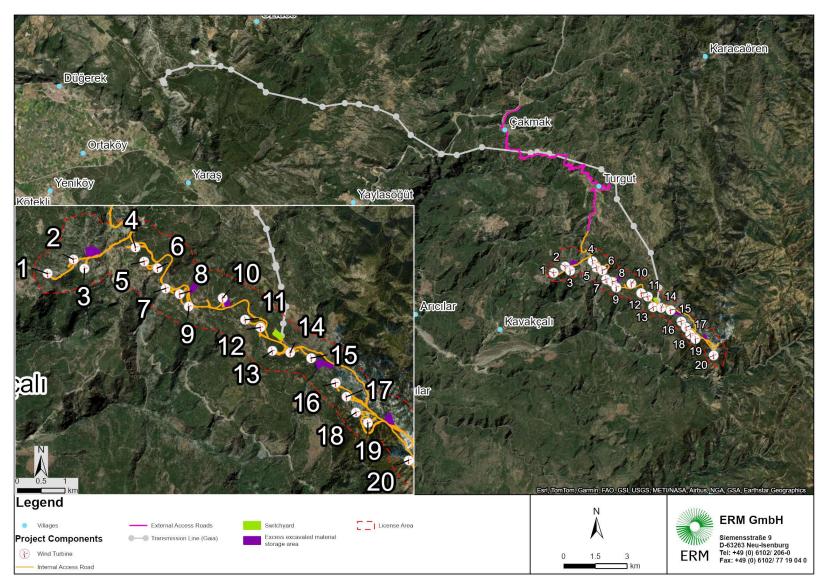


FIGURE 2-3 PROJECT LAYOUT - 2

2.5 PROJECT ALTERNATIVES

2.5.1 NO PROJECT ALTERNATIVE

The No Project alternative assumes that the Project will not be implemented. In this case, the Project site area would remain in its existing condition preserving the current physical, biological, and socio-economic characteristics without any alterations or interventions associated with the proposed Project.

The proposed Project is designed to generate electricity from wind which is a renewable and sustainable energy source. Wind power provides a strong alternative to fossil fuel-based energy production, contributing to reduced greenhouse gas emissions, improved air quality, and long-term energy supply security. The Project directly supports Türkiye's national energy strategy and Türkiye's international climate commitments under the Paris Agreement. Considering these benefits, the No Project alternative has not been assessed in further detail.

Consequently, given the Project's commitment to utilizing wind power, no alternative energy resources have been considered for this Project.

2.5.2 LOCATION SELECTION

Since the planned GAİA WPP Project area is the area declared as YEKA WPP-2, no alternative project location has been considered. The initial site selection and turbine locations were determined in line with the opinions of the General Directorate of Mining and Petroleum Affairs, General Directorate of Forestry, General Directorate of Nature Conservation and National Parks, Metropolitan Municipalities in Türkiye and all other institutions that are members of the commission within the scope of the Project. The selected areas for turbine location have been planned to minimise habitat disturbance and tree removal.

Final design choices on the ETL including the last route specifics, location rest with TEİAŞ and are beyond the Enerjisa Üretim's authority.

2.6 PROJECT SCHEDULE

Wind farm projects are generally developed through several key stages such as selecting a suitable location, obtaining necessary permits, installing the wind turbines, and connecting them to the electricity grid as illustrated in Figure 2-4.

The construction phase of the Project is expected to last 17 months, with a peak workforce of 225 personnel anticipated to be employed during construction and 10 personnel during the operational phase. As of October 2025, a total of 210 personnel is currently employed for the Project. Job announcements for the Project will be published through LinkedIn, Kariyer.net, HR-Web, the Enerjisa's official platforms, and the Project website³. Candidates will be evaluated through a transparent and inclusive recruitment process involving initial screening, interviews, and necessary assessments. Local applicants will also be informed through community meetings, where interested individuals can register on application lists managed by the Community Liaison Officer (CLO). The CLO will act only as a facilitator, ensuring equal access for all applicants, while final hiring decisions will be made by the contractor companies.

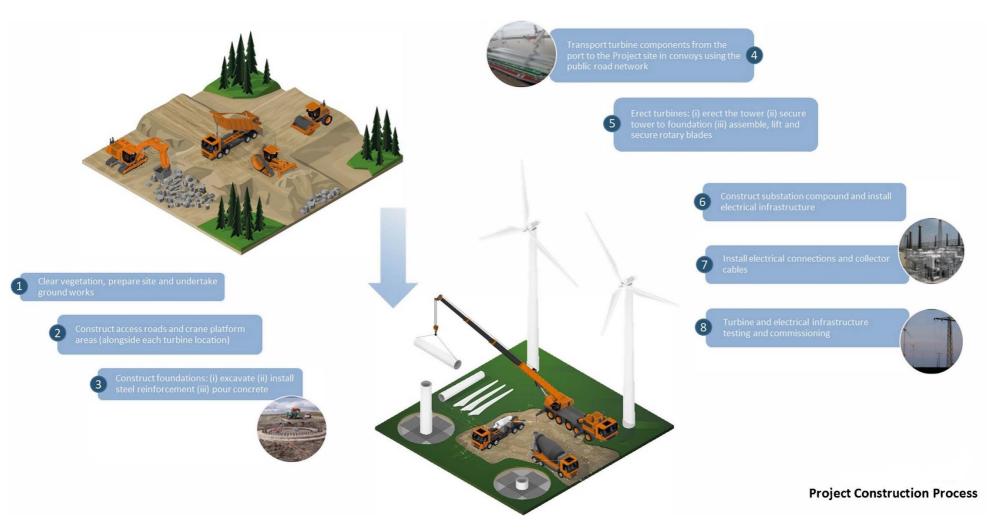
³ https://yekares2.enerjisauretim.com/

PROJECT DESCRIPTION

The economic lifespan of the Project is projected to be 49 years.

Accommodation during the construction phase will be provided within a mobilization area set up in Turgut neighborhood. According to the latest information from the site, mobilization activities started by March 2025. The Project is planned to become fully operational by June 2026.

GAIA WIND POWER PLANT (WPP) PROJECT
PROJECT DESCRIPTION



Source: ERM

FIGURE 2-4 GENERAL DESCRIPTION FOR THE TYPICAL ESTABLISHMENT OF WIND FARM PROJECTS

2.7 LAND NEED OF THE PROJECT

The Project area includes three primary land ownership types: state-owned forest lands, treasury lands, and privately owned lands. Each type is subject to distinct legal procedures regarding land acquisition, expropriation, and use rights.

- **State Forest Land:** All of the wind turbine sites and the switchyard are located in Kavakçalı neighborhood (Ula District) on parcels officially registered as state-owned forest land. These lands are governed by Forest Law No. 6831. Use of these lands for energy generation purposes requires a long-term (49-year) usufruct right permit issued by the Ministry of Agriculture and Forestry, following a site-specific application and approval process. Therefore, no direct land acquisition is required for turbine construction.
- Treasury Lands: Areas designated as treasury land are generally used for access roads and part of the transmission line route. These lands are formally state-owned but not designated for forestry or other specialized public functions. They are transferred to the project proponent through easement rights granted by the General Directorate of National Real Estate. No compensation is paid for treasury land under Turkish law; the process is handled via administrative correspondence.
- Private Lands: There are 8 private parcels affected because of the access road. 1 parcel
 in Çakmak village purchased by Enerjisa Üretim due to the remaining area of the parcel
 after expropriation would not be used by the parcel owner. Five negotiation meetings
 were held with the remaining (7 parcel) affected parcel owners, but due to registration
 problems with their title deeds, the rental process could not be carried out even though
 an agreement was reached.
- Temporary Lands: Those are currently required for the mobilization area. For the Gaia Project, three private land parcels located in Turgut Neighborhood are being used on a temporary basis for this purpose. A one-year lease agreement has been signed. Upon completion of project demobilization, a land exit protocol will be executed to confirm the condition and delivery status of the land.

The expropriation process is conducted in accordance with Turkish Expropriation Law No. 2942. In compliance with EBRD ESR5, compensation will be provided at full replacement cost⁴, not just national compensation value. A full Census and Asset Inventory of affected private parcels, including standing crops and trees, has been initiated by Enerjisa Üretim.

As part of the land acquisition process for the Energy Transmission Line (ETL), a total of three parcels (1 private, 2 forest/treasury) will be affected. An easement right (with land use restrictions) is planned to be established on a privately owned parcel located within the boundaries of Yaraş Neighborhood. In Türkiye, the construction and operation of ETLs fall under the authority of the Turkish Electricity Transmission Corporation (TEİAŞ). TEİAŞ is the ultimate responsible body for project approval, land acquisition and easement establishment, construction management, and long-term operation of ETLs. The Project Company has prepared the design and undertaken preparatory works on behalf of TEİAŞ; however, ownership, accountability, and regulatory authority throughout the process remain with TEİAŞ. Since the

⁴ Replacement cost reflects the market value of the asset plus any transaction costs or other costs to replace the asset

ETLs belong to TEİAŞ, the entire expropriation process is being carried out by TEİAŞ. However, in cases where Enerjisa Üretim need to expedite the process to start pole installations at site earlier, Enerjisa Üretim may hold negotiations with the landowners of the parcels where the poles will be located, prior to the expropriation. In such cases, consent forms may be signed in exchange for payments made to the landowners based on a pre-determined amount per pole.

When a project is located in rural areas where agricultural lands are affected, the impacts may extend beyond the mere value of the land itself, potentially influencing crops, livelihoods, and other assets linked to the affected land. The land needs of such subprojects may involve establishing ownership or easement rights over the relevant areas. Permanent land acquisition requires the transfer of ownership rights, whereas temporary land use involves the establishment of easement rights. After construction, lands beneath overhead transmission lines are returned to their rightful owners for continued use, subject to specific restrictions such as prohibitions on tree planting or building structures to ensure safety clearances are maintained.⁵

The ETL route has been finalized as of October 2025. The ETL route has been finalized as of October 2025. The expropriation process for the parcel in Yaraş Neighborhood has not been started by TEİAŞ yet.

As the Project does not involve any physical displacement or resettlement of households, a full Resettlement Action Plan (RAP) is not required. Instead, a Livelihood Restoration Plan (LRP) has been prepared to specifically address economic displacement impacts, including potential losses of land-based livelihoods, access restrictions and associated vulnerabilities. Not only LRP identifies the Informal land users not receiving full cash compensation due to expropriation under Turkish law may receive the following: Transitional Livelihood Support (TLS), in-kind support, hive relocation assistance. Moreover, informal land users affected by the land acquisition, are entitled to receive compensation for trees, crops, above-ground structures. TLS will be applied to both informal users with land-based livelihoods and simply resource users. Informal users of the state and forest land will in fact be entitled to compensation and/or in-kind support for resource losses. The LRP provides further measures for the compensation and livelihood restoration.

According to news reports, YEKA-2 projects will result in the cutting of 36,214 trees. The news underlined that the WPP Projects are located in forest areas with natural habitats, raising concerns among environmentalists and locals about the ecological impact. 6 7 8 9

The local EIA states that the project site and turbine locations were determined in line with the opinions of the General Directorate of Mining and Petroleum Affairs, General Directorate of Forestry, General Directorate of Nature Conservation and National Parks, Metropolitan Municipalities in Türkiye and all other institutions that are members of the commission within the scope of the project. According to the local EIA, the selected area has been planned to ensure minimal habitat loss and minimal tree cutting.

The number of trees to be cut includes the requirement for turbine platform areas, access roads, switchyard area, excess excavated material storage areas (if needed). A total of 12,470 trees is

⁵ TEİAŞ, 2025

⁶ https://www.birgun.net/haber/36-bin-agaci-kesecekler-538480

⁷ https://yeniyasamgazetesi5.com/bakanligin-mugla-talani-bitmiyor-res-turbinleri-icin-36-bin-agac-kesilecek/

⁸ https://www.evrensel.net/haber/521266/res-turbinleri-icin-36-bin-agac-kesilecek

⁹ https://artigercek.com/cevre/muglada-alman-sirketinin-res-projelerine-onay-36-bin-agac-kesilecek-308415h

planned to be cut within an area of approximately 75.11 hectares. The vegetation in the project area mainly consists of Black Pine (Pinus nigra), Turkish Red Pine (Pinus brutia) and maquis vegetation. According to the information received from the site, no tree cutting will take place within olive grove areas. The numbers are detailed within the local EIA as presented in Table 2-1 below.

TABLE 2-1 REQUIRED NUMBER OF TREES TO BE CUT FOR GAIA WPP

Component	Total Area (ha)	Number of Trees to be Cut
Total Turbine Platform Area	39.10	5,885
Total area for Access Roads	1.93	555
Total Switchyard Area	19.63	5,305
Total Excess Excavation Material Storage Area (if needed)	14.45	725
Total	75.11	12,470

3. ENVIRONMENTAL AND SOCIAL BASELINE SUMMARY

As part of the ESIA process, baseline studies were conducted to determine the existing environmental and social conditions of the Project area prior to development. Baseline data has been collected from a combination of field studies, literature reviews, publicly accessible sources, and consultations with stakeholders to provide a comprehensive understanding of the existing environmental and social conditions. The following studies were conducted for the primary data collection:

- Biodiversity Field studies, April November 2024
- Cultural Heritage Survey, June 2024
- Baseline Soil Quality Analysis, July 2024
- Baseline Air Quality Measurements, July August 2024
- Baseline Noise Measurements, July 2024
- Social Field Study, March 2025

The Project area has a typical Mediterranean climate, characterized by hot, dry summers and mild, wet winters. Baseline air quality measurements show that PM₁₀ and SO₂ concentrations are below the limits set by Turkish, EU, and WHO standards. However, NO₂ levels exceed the thresholds defined by the EU and WHO.

Baseline noise levels are within the limits specified by both the IFC Guidelines and Turkish regulations. Baseline soil quality assessments have not identified any significant contamination in the Project area.

The site is located upstream in the local hydrological system, and no turbines are planned within stream beds. The area is mountainous with steep and rugged terrain and elevations between 1,000 and 1,500 meters above sea level.

The Gaia WPP Project site does not overlap with major migration routes or bottlenecks for soaring birds. The Project area is located within the Sandras Mountain Key Biodiversity Area (KBA), which

is recognized for its rich plant diversity and high number of endemic species. Field surveys recorded 18 endemic plant species within the Project area. Two bird species were determined as threatened according to IUCN Red list as Turtle Dove and Red-footed Falcon. Collision risk estimates were carried out for four target species observed in the flight risk volume, and the results indicate low risk. In total, 14 bat species were recorded and the dominant species was Pipistrellus pipistrellus. Miniopterus schreibersii [designated as globally 'Vulnerable' (VU)], Barbastella barbastellus, and Rhinolophus euryale [designated as globally 'Near Threatened' (NT) in terms of the IUCN Red List of threatened species] were documented. There is no endemic and/or threatened mammals being found. The closest Important Bird Area (IBA) is located within 13 km. There are no Alliance for Zero Extinction (AZE), RAMSAR, or UNESCO World Heritage sites in or near the Project area.

Based on the Critical Habitat Assessment (CHA), the Project area therefore hosts confirmed CH and PBF species, as well as additional PBF species potentially present according to literature and distribution data. Confirmed CH species include *Fritillaria sp. nov.* (CR, new species to science), *Muscari muglaensis* (VU), *Verbascum ebubekirceylanii* (CR), *Genista sandrasica* (EN), *Ornithogalum sandrasicum* (CR), and *Teucrium alyssifolium* (VU). PBFs confirmed within the Project area include endemic and restricted-range flora such as *Astragalus dirmilensis*, *Vinca ispartensis*, *Acantholimon ulicinum var. purpurascens*, and *Cyclamen alpinum*, as well as PBF natural habitats; *Pinus nigra* and *Pinus brutia* woodlands and serpentine steppe. Faunal PBFs include *Streptopelia turtur* (European Turtle-dove, *Falco vespertinus* (Red-footed Falcon) and several bird species of LC and listing in Resolution 6 of Bern Convention, *Testudo graeca* (Mediterranean Spur-thighed Tortoise), and bat species *Miniopterus schreibersii*, *Rhinolophus euryale*, *Barbastella barbastellus* and *Rhinolophus blasii*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*.

Potential PBF species include, *Unio crassus, Cerambyx dux, Lucanus busignyi* and several additional bat species with suitable foraging habitat such as *Myotis capaccinii, M. bechsteinii, M. blythii, M. emarginatus, M. myotis, Nyctalus lasiopterus, and Rhinolophus mehelyi, Vespertilio murinus*.

The Climate Change Risk Assessment (CCRA) identified wildfires as the most significant climaterelated hazard, representing a high physical risk to Project. Several measures are recommended in the CCRA to mitigate and adapt to wildfires and landslides.

The areas considered for turbine locations were found to be unsuitable for both archaeological and present-day settlements. During the cultural heritage survey covering the Project Site, a total of 1 archaeological and cultural heritage sites (a cemetery) were identified within the license area of the Project. No intangible cultural heritage elements have been identified in the immediate vicinity of the project site that will be negatively affected by the Project.

The main sources of livelihood in the project-affected neighborhoods include agriculture, livestock, beekeeping, forestry and retirement pensions.

Within the scope of the Project ESIA, a human rights impact assessment was also carried out. This included a high-level country risk screening, evaluation of management capacity as it pertains to human rights, and a human rights impact assessment based on current Project information. Key Project risks and adverse impacts as they pertain to human rights fall mainly within labor and working conditions (i.e. labor rights, occupational health and safety, forced and child labor etc.) and particular impacts to vulnerable groups such as women and

migrants/asylum seekers. Based on the data provided and reviewed, follow-up assessments are needed to more specifically understand localized Project impacts.

According to the most up-to-date information, an access road has been included in the Project design to provide access to the turbine locations during the construction. This road will facilitate the transport of materials and equipment between the main construction site and individual turbine platforms. The road is already existing but will be widened and improved to facilitate construction access. The road includes several small stream crossings, and these streams are low flow and, in some sections, dry out completely depending on the season.

The ESIA should be updated by conducting supplementary information package comprises the conducting retrospective biodiversity baseline surveys and impact assessments for the section of the access road where no baseline studies were previously conducted.

4. ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY

As part of the ESIA process, the potential environmental and social impacts of the Project were evaluated by considering the magnitude of the impact, the sensitivity of the affected receptors and the effectiveness of proposed mitigation measures. The table below summarises the potential impacts associated with the Project and indicates the main environmental and social aspects that may be affected.

TABLE 4-1 POTENTIAL IMPACTS DUE TO GAIA WPP

Component	Potential Impacts
Physical (Climate, Air, Soil, Water, Noise Landscape)	Air and dust emissions from the use of construction machinery and equipment and/or due to blasting activities (if performed)
	 Emissions of greenhouse gases from construction machinery, vehicles, and equipment.
	 Operational emissions from maintenance vehicles and equipment.
	 Reduction in overall emissions compared to conventional energy generation due to renewable energy production.
	 Erosion and compaction of soil due to vegetation clearing, excavation, and vehicle movement.
	 Contamination of soil from accidental spills or leaks of fuel and materials.
	Disturbance of geological formations during excavation and foundation works.
	Soil disturbance and erosion during decommissioning and site restoration
	 Alteration of surface water flow patterns due to excavation and earthworks.
	 Increased sedimentation and turbidity in nearby water bodies.
	 Contamination of surface water and groundwater from accidental spills or leaks.
	Changes in natural drainage and groundwater recharge due to soil compaction.
	 Temporary modification of hydrological conditions during dewatering and restoration activities.
	 Noise emissions and vibration impacts from construction activities, construction of access and transportation and/or due to blasting activities (if performed)
	 Noise emission from the wind turbines. Noise emission during movement of decommissioning vehicles on site (e.g., earthmoving, excavation, transportation);
	 Visibility of construction vehicles, equipment, and temporary infrastructure on-site.
	 Ground disturbance and dust generation during excavation and land preparation.
	 Use of artificial lighting during construction in low-light conditions.
	 Visibility of wind turbines as permanent features in the landscape during operation.
	Occurrence of shadow flicker under certain lighting conditions.
	 Presence of vehicles and equipment during decommissioning and temporary visual changes until site rehabilitation
Biological	Impacts on habitat and flora:
(Habitat, flora, fauna)	Physical Destruction/Disturbance of Vegetation and Habitat
,	Reduced Habitat Connectivity
	Introduction/spread of Invasive Alien Plants
	Water and Soil Pollution
	Dust Pollution
	Impacts on fauna:
	Disturbance caused by Noise, Light, Vibration
	Vehicle Collisions with Fauna

Component	Potential Impacts
	Creation of barriers to faunal species movement
	Disturbance/Displacement of Breeding Avian Species
	Avian Species Collisions with Wind Turbines
	Avian Species Collisions with Overhead Transmission Lines
Social	Increase in local inflation
(Population and Influx,	Risk of infectious diseases
Community	 Increased risk of sexual exploitation and abuse.
Health and Safety, Lands	 Increased dust emissions from excavation and road construction activities.
and Livelihoods, Infrastructure	 Elevated noise levels from construction equipment and traffic, or/and blasting (if performed)
and Services, Supply Chain, Vulnerable groups, cultural	 Construction-related safety risks, especially for individuals living close to access roads or turbine areas.
	 Loss or restriction of access to farmland, grazing areas, or forest zones.
heritage ¹⁰)	 Loss of livelihood income from agricultural and livestock activities due to expropriation of lands and olive groves
	 Temporary overuse and competition for already weak services (internet, GSM), especially during construction.
	 Increase in local employment during construction and operation
	Increase in traffic load and potential risks
	 Potential communication issues between community members and workers
	Risk of ice and blade throwing during the operation process
	Security Issues
	Supply chain related risks including labour and working conditions

 $^{\rm 10}$ No tangible or intangible cultural heritage assets have been identified

A qualitative impact rating matrix (Table 4-2) is used to rate impact significance based on the combined understanding of impact magnitude and receptor importance/sensitivity.

TABLE 4-2 MATRIX USED TO RATE IMPACT SIGNIFICANCE

Environmental Receptor	Magnitude of Effect			
Importance / Sensitivity	Negligible	Small	Medium	Large
Negligible	Insignificant	Insignificant	Insignificant	Insignificant
Low	Insignificant	Insignificant	Minor	Moderate
Medium	Insignificant	Minor	Moderate	Major
High	Insignificant	Moderate	Major	Critical

Impact categories for significance are described in Table 4-3.

TABLE 4-3 IMPACT SIGNIFICANCE CATEGORIES

Impact Significance	Description and potential implications
Critical	 Typically characterized by an unacceptable and fatally flawed impact or activity. Such impacts should be avoided and there is generally limited opportunity for offset/compensatory mitigation due to the high level of irreplaceability of the impacted component of the environment. The proposed activity should only be approved under special circumstances.
Major	 An accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resource/receptors. Generally unacceptable unless offset/compensated for by positive gains in other aspects of the environment that are of critically high importance (i.e. national or international importance only). Strict conditions and high levels of compliance and enforcement are required. The potential impact will have a strong influence on the decision regarding the proposed activity and thus, a clear and substantiated need and desirability for the project needs to be provided, to justify the associated ecological risks. It is ultimately the function of regulators and stakeholders to weigh such negative factors against the positive factors of a project, such as the creation of opportunities for employment, in coming to a decision on the project.
Moderate	 Impact has potential to be significant but is acceptable provided that there are strict conditions and high levels of compliance and enforcement such that the impact remains within accepted limits and standards. If there is reasonable doubt as to the successful implementation of the strict mitigation measures, the impact should be considered unacceptable. The emphasis for moderate impacts is on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable. The potential impact should influence the decision regarding the proposed activity and requires a clear and substantiated need and desirability for the project to justify the risks.
Minor	 An impact of minor significance is one where an effect will be experienced, but the impact magnitude is sufficiently small (with and without mitigation) and will within accepted standards, and/or the receptor is of low sensitivity/value.

Impact Significance	Description and potential implications			
	 Typically, acceptable with moderately-low to moderate risks provided that generic mitigation is applied and routine inspections undertaken. The potential impact may not have any meaningful influence on the decision regarding the proposed activity. 			
Insignificant	 An impact of negligible significance (or an insignificant impact) is where a resource or receptor will not be affected in any way by a particular activity, or the predicted effect is deemed to be `negligible` or `imperceptible` or is indistinguishable from natural background variations. Should not have any meaningful influence on the decision regarding the proposed activity. Basic duty of care shall be ensured. 			

The impact assessment results of the ESIA studies are summarised in Table 4-4. The table presents the sensitivity of each key receptor/resource and the corresponding residual impact levels expected during the construction, operation, and decommissioning phases of the Project, following the application of mitigation measures.

TABLE 4-4 THE IMPACT ASSESSMENT RESULTS OF THE ESIA

Receptor/Resource	Sensitivity	Residual Impact due to Project		
		Construction	Operation	Decommissioning
Air quality	Medium to High	Insignificant to Minor	Insignificant	Insignificant to Minor
Greenhouse Gas Emissions	Low	Insignificant	Insignificant	Insignificant
Geology and Soil	Negligible/ Low to Medium	Minor	Insignificant	Minor
Hydrology and Hydrogeology	Medium to High	Insignificant to Minor	Insignificant	Insignificant to Minor
Noise and Vibration	High	Insignificant	Insignificant	Insignificant
Landscape and Visual	High	Insignificant	Moderate	Insignificant
Physical Destruction/Disturbance of Vegetation and Habitat	Low to High	Moderate	n/a	n/a
Reduced Habitat Connectivity	Low to High	Moderate	Impact assessed for construction phase but will continue through operation	n/a
Introduction/Spread of Invasive Species	Low to High	Minor	Impact assessed for construction phase but will continue through operation	n/a

Water and Soil Pollution	Low to High	Insignificant	n/a	Insignificant
Dust Pollution	Low to High	Insignificant	n/a	Insignificant
Disturbance Caused by Noise, Light, Vibration	Low to Medium	Minor	Insignificant	Insignificant
Vehicle Collisions with Fauna	Low to Medium	Insignificant	Insignificant	Insignificant
Creation of Barriers to Faunal Species Movement	Low to Medium	Insignificant	Insignificant	n/a
Disturbance/Displacement of Breeding Avian Species	Medium	Insignificant	Insignificant	Insignificant
Avian Species Collisions with Wind Turbines	Medium	n/a	Insignificant to Minor	n/a
Avian Species Collisions with Energy Transmission Lines	Medium	n/a	Insignificant to Minor	n/a
Population and Influx	Medium	Minor	Insignificant	Minor
Health Conditions	Medium	Insignificant	Insignificant	Insignificant
Traffic Impacts	Medium	Minor	Insignificant	Minor
Security	Low	Insignificant	Insignificant	Insignificant
Ice and Blade Throwing	Medium	Insignificant	Insignificant	Insignificant
Land and Livelihoods	Medium	Minor	Insignificant	Insignificant
Infrastructure and Services	Medium	Insignificant	Insignificant	Insignificant
Labor and Working Conditions	Medium	Minor	Insignificant	Minor
Cultural heritage	Medium	Minor	Insignificant	Minor

In addition, a cumulative impact assessment has also been conducted to evaluate the potential combined impacts of the proposed Project together with other existing and planned projects in the surrounding area. The results are summarized in the table below, indicating that cumulative effects are generally minor to moderate in magnitude, with no significant residual impacts anticipated.

TABLE 4-5 CUMULATIVE IMPACT ASSESSMENT RESULTS

VEC ¹¹	Receptor	Overall Impact Significance with Existing/Planned Projects
Air Quality	Local communities	Minor
Soil	Soil resources	Minor

¹¹ VEC (Valued Environmental and Social Component) means an important environmental or social feature of the area such as air, water, soil, natural habitats, or local communities that may be affected by the Project.

VEC ¹¹	Receptor	Overall Impact Significance with Existing/Planned Projects
Hydrology and Hydrogeology	Workers, Local communities, surface and groundwater	Insignificant to Minor
Landscape and Visual	Local communities	Insignificant
Habitat and flora	Serpentine steppe Black pine (<i>Pinus nigra</i>) woodland <i>Pinus brutia</i> woodland Coniferous scrub woodland	Minor to Moderate
Fauna	Birds, bats, small mammals, reptiles	Insignificant to Minor
Local Communities	Project-affected households and livelihoods	Minor to Moderate

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

TABLE 4-6 PROPOSED MITIGATION MEASURES FOR GAIA WPP

Subject	Proposed Mitigation Measures
Air Quality	Air and Dust Emissions
	Regular air quality monitoring during construction activities.
	Limiting earthworks activities during particularly dry and windy periods.
	Switching off machinery and vehicles when not in use.
	Planning site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Removing materials that have potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site necessary mitigation measures will be taken.
	Ensuring an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Moistening of dusty surfaces and storage piles during dry weather conditions.
	Using enclosed chutes and conveyors and covered skips.
	Minimizing drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and using fine water sprays on such equipment wherever appropriate.
	Sheeting of truck loads.
	Cleaning of truck wheels when leaving the construction site.
	Routine testing of vehicle emissions to ensure compliance with exhaust limits.
	Awareness training for operators and drivers regarding the generation of pollutant emissions within their activities.
	Greenhouse Gas Emissions
	Unnecessary idling of vehicles and machinery will be avoided, ensuring that equipment is turned off when not in use.
	Axle weight limits and load capacities will be strictly followed to prevent excessive fuel consumption due to overloading.
	Speed limits and weight regulations will be adhered to in order to improve fuel efficiency and reduce emissions.
	Eco-driving (advanced driving) training will be provided to personnel to promote fuel-efficient driving practices.
	Regular vehicle maintenance, inspections, and emissions testing will be conducted to ensure that vehicles operate efficiently.
	Fuel filters will be replaced at regular intervals to maintain optimal engine performance and minimize emissions.
	The Project will seek to use low-carbon materials wherever possible to lower its overall carbon footprint.
	Resource Efficiency and Pollution Prevention Plan will be implemented to reduce both direct and indirect GHG emissions from Project activities.
	If blasting is required, the following mitigation measures shall be followed:
	Blasting operations will be optimized to ensure the efficient use of explosives, reducing the frequency and intensity of blasting events (if blasting activities will occur).
	Low-emission explosives will be prioritized where feasible to lower the overall carbon footprint of blasting activities.
Biodiversity	Mitigation measures for biodiversity will be implemented and managed through a Biodiversity Management Plan (BMP). Impacts on habitat and flora Physical Destruction/Disturbance of Vegetation and Habitat • All project activities must remain strictly within the defined footprints of infrastructure such as turbines, crane pads, roads, substations, and associated facilities. Micro-siting must prioritize ecologically less sensitive areas, avoiding key biodiversity zones, especially those in the western part of the wind farm. Placement of both permanent and temporary components (e.g., laydown and storage areas) near steppes or woodlands must be minimized.
	• Construction zones must be clearly marked and secured. Machinery must be maintained in line with national regulations and permits. Vegetation clearance must be limited to what is strictly necessary. Where feasible, vegetation should be cut to ground level rather than stripped, to retain seed banks and soil integrity.
	• The burning or burial of cleared vegetation is prohibited. Fire prevention measures must be in place throughout construction, especially during the fire season. Firebreaks and on-site firefighting equipment are required near fuel storage areas.

- Soil management must follow best practice standards (e.g., DEFRA 2009). Topsoil and subsoil must be stripped, stored, and reapplied separately. Restored topsoil must be protected with mulch, vegetation, or erosion-resistant material. Soil compaction must be avoided or remediated, and backfilling should stabilize any excavations. Topsoil should be returned to its original location when possible (within ~200 m).
- Vegetation clearing should be staged to allow wildlife to flee naturally toward adjacent habitats. Pre-construction wildlife surveys (at least 7 days before clearing) must be conducted by a qualified biologist, covering both day and night periods and including microhabitats (e.g., under rocks or logs). Any fauna encountered must be carefully relocated.
- During the herpetofauna breeding season (15 February 15 April), work in or near aquatic habitats must be avoided where possible. If necessary, a Visual Encounter Survey must precede any work.

 Amphibians found (eggs, larvae, juveniles, adults) must be relocated to nearby suitable habitats. Temporary water bodies (e.g., puddles) must be avoided, as they may attract breeding amphibians and lead to unintended mortality.
- Pre-construction and early-construction fauna surveys confirmed the presence of several reptile species within the Project area. Lyciasalamandra flavimembris (EN) was not recorded during any of the surveys, while Anatololacerta pelasgiana was determined at several turbine and access road locations.
- Testudo graeca (Mediterranean Spur-thighed Tortoise) was confirmed in low numbers, and each was carefully relocated to undisturbed habitats to prevent mortality during construction. The presence of Caracal caracal was not confirmed during pre-construction surveys in May and June; however, a camera-trap monitoring programme was launched in July 2025 to assess the potential occurrence of this species in the wider forest landscape, with four cameras installed at strategic locations within and around the Project area. Field observations confirmed the continued presence of several endemic and threatened flora species previously identified in the pre-construction surveys. Populations were revisited at known coordinates, and both in-situ and ex-situ conservation measures were implemented to protect them from construction impacts. During the 2025 monitoring season, key endemic and threatened species such as Fritillaria ozgeana, Verbascum ebubekirceylanii, Vinca ispartensis, Ornithogalum sandrasicum, Genista sandrasica, Muscari muglaensis, Astragalus dirmilensis, Teucrium alyssifolium, Acantholimon ulicinum var. purpurascens, and Cyclamen alpinum were monitored and managed through seed collection and translocation by Ekogen.
- In disturbed areas, topsoil was stripped and stored for later rehabilitation, while seeds were collected and scattered to promote natural regeneration. Viable seeds were packaged and submitted to the Aegean Agricultural Research Institute Gene Bank for long-term preservation. Receptor sites for translocation were identified within or near the project boundary, ensuring similar soil and elevation conditions. Monthly monitoring of translocated individuals and seed dispersal zones has continued since May 2025, with findings reported to Enerjisa.
- The Biodiversity Management Plan (BMP) will continue to be implemented and adaptively updated based on site findings and monitoring outcomes. Where necessary, a Biodiversity Action Plan (BAP) will also be developed to address specific conservation requirements and will likewise be revised adaptively to reflect ongoing results and lessons learned.
- Temporarily impacted natural habitats, particularly serpentine steppe and *Pinus nigra* woodland, must be restored post-construction. A site-specific Habitat Restoration Plan must be developed to guide both passive and active restoration actions. Restoration must follow SER standards and be tailored to the habitat type and known recovery trajectories.
- Monitoring programs must be implemented to evaluate survival, health, and population trends of both translocated and retained species. Restoration success must be measured through predefined indicators, allowing for adaptive management.
- Habitat enhancement and ecological connectivity opportunities around the project site must be explored and incorporated into both the operational and decommissioning phases, as recommended by NatureScot (2022).
- Where impacts cannot be avoided and natural habitats will be destroyed or disturbed temporarily or permanently, the following is needed for the natural steppe and woodland habitats being PBFs, for which No Net Loss (NNL) of biodiversity will need to be attained at a minimum, in alignment with the requirements of EBRD ESR6:
- For temporary loss due to land take for temporary infrastructure and activities, the strategy will be to restore the impacted habitats—primarily Black pine (Pinus nigra) woodland—to their original or better ecological condition (Step 3 of the mitigation hierarchy: restore/rehabilitate). In the GAIA Wind Farm Project, temporary habitat loss is estimated at 16.86 HH, affecting 14.75 ha of Pinus nigra woodland, with a required restoration area of 28.10 ha to achieve ecological equivalence in line with SER standards.
- Where habitat loss will be permanent (due to permanent infrastructure associated with access roads, turbine platforms, etc.), step 4 of the mitigation hierarchy applies, which involves compensating for permanent loss of natural habitat through a habitat replacement/restoration program that can be realized through a traditional habitat offset for example. Permanent loss amounts to:
- Black pine (*Pinus nigra*) woodland: 65.27 ha (57.74 HH) residual impact
- Serpentine steppe (E1.B): 7.21 ha (5.77 HH) residual impact
- Pinus brutia woodland (G3.7): 3.54 ha (3.94 HH) residual impact

Onsite restoration of habitat affected by temporary works (e.g. storage area):

Upon completion of the construction-phase, temporary works or temporary facilities/infrastructure will be decommissioned and removed as follows:

- Deconstruction and removal of temporary infrastructure and materials from site;
- Removal and disposal of any waste material or contaminated substances and transportation for proper offsite disposal;
- Closing of any temporary excavations or trenches by backfilling the area with the material arising during excavations;

- Landscaping with topsoil as required; and
- Revegetation as required with rapid growing runner grass species (indigenous grass species only are to be used).
- General principles for reinstatement of habitats affected by construction activities and where temporary works are removed from the site after construction should be completed are described below:
- It is recommended that progressive rehabilitation/restoration be undertaken for natural habitats temporarily disturbed/affected, such that as works are completed, the affected areas are rehabilitated and restored as necessary.
- Maintain the original soil layering and do not mix topsoil and subsoil layers.
- Reinstate soils in the reverse order (subsoil, then topsoil).
- Ensure that topsoil is returned and used in habitat restoration in the same general area of the site where it was originally removed (i.e. within a distance of 200m) and not transported to and used in another location.
- Soil erosion features will be stabilized via backfilling as appropriate.
- Protect the reinstated bare soil surface with a physical barrier, such as a thin layer of mulch or geotextile/erosion control matting.
- Avoid compaction of soils, for example though excessive vehicle tracking, and rip soils where compacted to allow for vegetation growth.
- Where lands will be returned to agricultural production, no further requirements are recommended beyond soil reinstatement and basic landscaping to return the surface to pre-construction conditions.
- Identify indigenous species for planting and suitable sources for seed and plants as appropriate (preferably using seed of local origin as far as possible, and only supplement with other seed where locally sourced seed is unavailable).
- Identify commercial sources of seed / plants from local nurseries for example.
- Encourage rapid re-vegetation through re-seeding using rapid growing, indigenous runner grasses that will form a secondary grassland habitat (meadow or pasture), with species selection using native/indigenous plants only (no exotic species) and using only a compatible species mix informed by the local soil and climate characteristics.
- Direct seeding by broadcasting seed or hydro-seeding is recommended to immediately stabilize areas that are bare of vegetation cover within 2 months of the completion of works in these areas.
- Care must be taken to utilize appropriate species for revegetating trenches where cables/pipelines have been buried (avoid selecting deep rooting plants/trees for example that could damage buried cables/pipes).
- Temporary fencing or other appropriate barriers are to be erected where necessary to prevent entry to the area implemented in the short to medium term, to prevent livestock overgrazing and allow vegetation re-growth in order to stabilize the soil surface.
- Control invasive and alien plant species that may colonize the reinstated habitat in accordance with the measures in this BMP.

Reduced Habitat Connectivity

- The same suite of mitigation measures as for 'Impact 1: Physical Destruction/Disturbance of Vegetation and Habitat' apply here as well, as these will also mitigate habitat connectivity impacts
- All temporary construction features, such as excavations, fencing, and stockpiles of soil or materials, must be fully removed upon completion of construction to enable natural habitat recovery and reduce long-term barriers to species movement.
- The use of permeable fencing (if envisaged in the long term for operation) is recommended to allow the movement of small mammals and herpetofauna across the site and minimize isolation of fauna populations.
- The number of new access roads must be minimized, limited only to those essential for turbine access during construction and operationally for access for maintenance purposes. Wherever feasible, shared access routes and internal turbine connection tracks should be used to reduce landscape fragmentation.
- Access road design should also consider design options to minimize the number of crossings of discrete habitat units and especially avoid crossings of wildlife corridors where these are identified. For example, this could be particularly relevant for the ETL where multiple access points may be needed.
- Opportunities for habitat restoration, corridor enhancement, and restoring/improving ecological linkages in the long-term should be explored as part of the NNL strategy for PBF habitats affected.

Introduction/spread of Invasive Alien Plants

- Prohibit the general access of vehicles, construction workers and machinery to natural habitat outside of the approved construction zone (especially steppe and woodland areas) to avoid and contain the possible introduction and dispersion of IAP/weed species.
- Prohibit the storing of the soil resulting from excavations within the natural steppe/woodland areas, so as to limit the potential dispersal of alien plant species.

- Remove invasive plants from the project site where identified and implement effective disposal methods.
- Inspect construction equipment, vehicles, and materials for hitchhiking seeds, spores, or organisms before they enter the project site.
- Use local soils and reduce the need for foreign soils from other regions that may carry foreign plant material, unless these have been treated.
- At the bottom of the excavated area for each turbine array and access roads, a flat surface must be formed in order to control the spread of invasive plant species present in a wider area (by mowing, grazing, tamping, etc.);
- There are various means of controlling IAS and generally an integrated control is recommended for implementation (manual and chemical control);
- The suitability of control methods0F0F12 will need to be evaluated as this depends on several factors, including practical constraints, economic constraints and applicability of methods for particular species of IAS;
- Note that most methods of control (including herbicide use) are best applied in the growing season (spring to summer: April-September);
- Care must be taken with regards to the choice of herbicide to ensure that no additional impact and loss of indigenous plant or animal species occurs due to the herbicide used;
- Either water or diesel can be used as a "carrier" for certain herbicides, however water is the generally preferred carrier, because diesel is expensive and can have very negative impacts on the natural environment (diesel should never be used for foliar applications due to its very negative impact on the environment);
- Mixing ratios for herbicide quoted by the manufacturer are tested for optimum results and it is important that these ratios be adhered to;
- Herbicide should always be applied immediately after the selected mechanical control method (e.g., after frilling, ringbarking, cut stumping or strip- barking);
- Always store herbicides in the original container together with the relevant MSDS and in secure storage areas out of reach of children and animals;
- Footprint areas within natural habitat must be kept as small as possible when removing invasive/alien plant species;
- Adequate follow-up control is usually required to target seedlings, root suckers and coppice growth, particularly for dense infestations of alien plants characterized by rapid growth/reproduction and follow-up work will need to be undertaken on a 3-to-6-month basis, depending on the rate of re-growth assessed through monitoring;
- It is critically important that regular monitoring of clearing operations and alien plant levels post-control be undertaken as this will inform further efforts required to control the spread and densities of alien plants on the property, as well as informing whether current methods of control require review and which areas need to be prioritised for alien control going forward:
- A record of progress is to be maintained, including simple records of daily operations (e.g., site number, date cleared, status of site initial, follow-up, amount of herbicide used, etc.);
- Georeferenced digital photographs to be taken before and after work is undertaken and maintained in a central database;
- A visual survey is to be taken annually to document progress and inform changes required to the approach to clearing and to identify which areas still require further work (an assessor with knowledge of alien vegetation will need to visually assess the situation in the field).
- An IAS control plan covering both flora and fauna species will be developed (when necessary) and implemented.

Water and Soil Pollution

- No burning or burial of waste on the site or surrounding areas is to be permitted, solid or liquid form.
- Disposing of waste into the environment is prohibited. Waste products are to be collected and appropriately stored temporarily on site and then to be transported to registered waste facilities only for proper disposal.
- Waste generated during the construction works (concrete, metal, plastics, cables) must be collected and submitted to collectors for each type of waste separately.

- **Species to be controlled**: herbicides are registered for specific species
- Size/age of target plants:
 - o For seedlings: hand-pulling or hoeing and foliar applications of herbicides for dense stands
 - For saplings: hand-pulling or hoeing, foliar applications of herbicides for dense stands, basal stem treatments and cut stump treatments recommended.
 - o For mature trees: ring barking, frilling, basal stem treatments and cut stump treatments recommended.
 - **Density of stands:** Overall applications of herbicide can be made to dense stands of seedlings or saplings. Where dense stands of large trees are present, treatment of standing trees may be appropriate to obviate the problem of disposing felled trees.
- Accessibility of terrain: In inaccessible areas, methods that rely on the minimum amount of transportation of equipment and chemical should be given preference
- **Environmental considerations**: Riparian/wetland areas require a careful approach to treatment/control. Only herbicides approved for use in wetland/riparian areas are to be considered. Washing of equipment or disposal of any chemical substances is prohibited in or near areas where there is a potential risk of contamination of wetlands/riparian areas.
- **Disposal of dead vegetation**: Where possible, utilizable wood should be removed after tree felling. This is also the case for trees that could cause the blockage of water courses. Brushwood should be spread rather than stacked to limit soil damage in instances where burning is planned.
- Cost of application: the cost application and re-treatment should be taken into consideration when selecting methods/herbicides, etc.

¹² The suitability of control methods depends on a number of factors, including practical constraints, economic constraints and applicability of methods for particular species of IAS. Selection of the appropriate methods of control should be based on the following criteria:

- Establish a secured designated fuel and chemical storage area, with an impervious cover and sufficient containment volume for the storage of all chemicals.
- Restrict refueling of vehicles or equipment to impermeable hard-standing areas with strict spill controls.
- Always use drip trays when temporarily storing or handling fuels or when servicing/repairing vehicles on site.
- Employ best practice measures in handling and storing fuels, oils and chemicals liable to spillage.
- Develop procedures for emergency/spill response and for the storage and handling of fuels, construction materials and wastes.
- Emergency spill kit provision and training in spill response to be provided.
- Clean-up any spills immediately.
- Remediate any soils or habitats where spills take place. Inform the relevant authorities as soon as any significant or major spill event takes place.
- Check hoses and valves regularly for leaks ensure they are turned off and securely locked when not in use.
- Make sure to have recipients that can collect fuels in case of leaks as well as a minimum of 3 kg of environmentally friendly substances able to absorb fuel and other spills.
- Conduct regular inspections of construction vehicles to identify and repair leaks or damaged fuel/lubricant lines.
- Restrict refueling of vehicles or equipment to impermeable hard-standing areas with strict spill controls.
- Place diesel pumps and similar items on drip trays to collect minor spillages. Check trays regularly and remove any accumulated oil.

Dust Pollution

Reduce the risk of fugitive dust emissions, that considers the following:

- Minimizing the surface clearing to minimum required for operations,
- Avoiding earthworks during particularly windy periods
- Minimizing the size of material/spoil storage piles,
- Covering soil stockpiles during windy periods with appropriate cover materials.
- Restricting unnecessary traffic,
- Using a suitable cover/tarp when transporting soil/sand liable by truck that could be liable to spillage or dust pollution.
- Minimizing and strictly regulating the offsite hauling of debris,
- · Using the truck bed covers when hauling materials,
- Using gravel for the access roads,
- Employing suitable dust suppression on bare soil surfaces exposed to wind and dirt roads used by heavy construction vehicles,
- Wastewater may not be reused for dust suppression unless this water has been treated to acceptable levels according to national laws for the use in irrigating lands,
- Where water is scarce or unavailable, applicable binding agents shall be used (additives) for dust suppression,
- · Planting vegetation where relevant.

Impacts on fauna

Disturbance caused by Noise, Light, Vibration

- Temporary working areas will be designed to be as small as practicable and areas chosen for the storage of materials will avoid areas of high visual impact.
- In order to protect the existing species of bats, it is necessary to reduce the intensity of construction works in the period from dusk to dawn (in the period April-October), when the activity of bats is at its highest. During this period, artificial lighting should be restricted only to the construction works zone, with the possibility of encasing the floodlights by protective lids in order to prevent the diffusion of light.
- In order to reduce the levels of noise, equipment which is not being used must be turned off. Lights are also to be turned off when not needed.
- The EPC Contractor is obliged to monitor and keep in proper working condition all installed equipment, devices and work resources.
- Staff and visitors must be warned not to disturb birds, especially during the nesting period where nesting activity occurs particularly in natural wooded habitats on the site or surrounds.
- Monitoring: monthly noise measurement with adequate phonometers.

- Limit construction activities to day-time hours to limit impacts to any nocturnal species as far as possible, otherwise limit night-time activities to only essential works so as to reduce disturbance.
- Maintain vehicles and equipment in good working condition.
- Use noise minimizing technology where possible. Examples include noise barriers and mufflers on construction equipment.
- Aim lights away from any adjacent sensitive habitats. Use of directional lighting to reduce light spill and prevent light increases in adjacent sensitive habitats such as bushes and wooded habitats.
- Use low intensity lights where possible.
- Enforce good conduct by construction workers, including prohibition of hunting, trapping, fishing, and general harassment of wild animals.
- Use low-intensity, small-charge, controlled blasting to reduce vibration amplitude and noise.
- Avoid multiple simultaneous detonations during blasting (if required). Stagger charges to reduce overall energy release.
- Collect and remove waste products and litter from work areas that could attract wildlife to these areas.

Vehicle Collisions with Fauna

- Limit vehicle speed on site for construction vehicles and vehicles accessing the site (set speed limit at less than 30 km/hr).
- Place calming measures such as speed humps for vehicles as necessary.
- Install warning signs along the roads to alert drivers to potential faunal crossings where appropriate.
- Place appropriate limits on the number of vehicle movements to and from the construction site.
- Restrict vehicles to the use of only authorized access roads.
- Limit worker/staff and vehicle access to the authorized construction site only.
- Restrict activities to day-time hours where possible when visibility is good and potential fauna collisions with vehicles can be more easily avoided. Where this is not possible, driver awareness training and reduced speed limits on internal roads will be employed.
- To reduce the risk of collision with wildlife resulting in injury/mortality, it is proposed to limit construction works during the breeding season for any ground-breeding birds.
- Another common mitigative measure to prevent impacts on ground breeding birds is to prevent them from breeding in the relevant areas in the first place. Suitable visual deterrents, such as colored ribbons attached to poles/sticks that move in the wind, may be used to scare ground-breeding birds before the start of the breeding period.
- Implement the temporary fencing off of any ditches, trenches and capping of pipes at nighttime to prevent wildlife movement onto the construction site.
- Any excavations are not to be left open overnight, alternatively they will need to be securely covered or a means of escape for any animals that may become trapped will be provided, such as a wooden board or earthen ramp.
- All open excavations are to be checked for the presence of animals each morning and immediately prior to backfilling of open excavations/trenches.
- Avoid or minimize disturbing or removing cover objects, such as downed trees, rotting stumps, brush piles, stone piles and leaf litter until these have been checked for animal activity, these can then be removed and relocated to similar suitable adjacent habitat outside of the construction zone.
- Any injured animals are to be transported carefully but efficiently to a local vet for treatment as soon as possible.
- Relocation of the Mediterranean Spur-thighed Tortoise (Testudo graeca), which was detected in the field is recommended if observed. Additionally, if the species is identified within the construction zone, this species should also be shepherded / directed to suitable natural habitat outside the construction zone.
- To minimize the mortality of wildlife species, biological surveys (pre-construction surveys) are recommended to be conducted to identify and potentially relocate fauna species. These surveys will be carried out by an expert wildlife ecologist in areas where temporary and permanent facilities will be situated, no earlier than one week (7 days) prior to construction. The focus of the survey will be on fauna species with limited mobility, such as mammals and reptiles, which may be unable to move before construction begins. If any of these species are found, they will be captured by the ecologist and relocated to undisturbed but similar sites within the Area of Interest (AoI).
- Reptiles will be captured and transferred to a suitable receiving site that is no smaller than the capture site, possessing similar habitat characteristics and prey availability, and located away from the construction footprint during the construction phase.

Creation of barriers to faunal species movement

- · Avoid placing impermeable fences that could interfere with species movement.
- This excludes any species barriers recommended to prevent reptiles/small mammals from accessing construction areas.

Subject Propo

Proposed Mitigation Measures

- Any temporary excavations, fences or stockpiles of soil and materials must be removed from the site once construction is complete.
- Wildlife shepherding protocol to be prepared and implemented where construction takes place, to check areas to be worked in prior to construction and remove or shepherd wildlife found on the construction site to safety in adjoining natural habitat (where these animals cannot safely exit the construction site by themselves). When capturing/relocating animals, cover larger animals with a towel or blanket and place in a cardboard box and/or hessian bag, place smaller animals in a cotton bag, tied at the top.
- Develop protocols for the shepherding of any wild animals found in construction areas where these unable to exit the construction site by themselves. Species considered to be dangerous or poisonous/venomous to be handled by professionals.

Disturbance/Displacement of Breeding Avian Species

Breeding Birds:

- Consider appropriate preventive/protective buffer zones for breeding/nesting birds (those identified as nesting on site where active nests have been identified). A conservative buffer distance of at least 200 m is recommended (aligned with Tolvanen et al., 2023 and NatureScot, 2022).
- Where possible avoid site clearance during the main bird breeding season (breeding season for species is typically the spring months to early summer, from April June). See in impact description for possible breeding birds to consider.
- Where not possible, "Ecological Clerk of Works" (ECoW) to prepare the environmental documentation on delivery of ecological requirements to site before construction activities commence in order for contractors to meet key development milestones. The ECoW will monitor that site-based construction activities are delivered in accordance to relevant laws and Project commitments.
- Fence and/or demarcate work areas to minimize effects of vegetation clearance on possible ground and tree nesting birds.
- Preventing the establishment of active nests during the primary bird nesting season on standing plant and temporary facilities and structures by closing opening and vents and checking equipment before operation.
- Illegal activities such as hunting of wildlife or collecting of forest species is to be discussed with construction workers and such activities are to be prohibited with penalties/fines mechanism in place for indiscretions.
- Avoiding blasting during the breeding/nesting seasons of sensitive fauna (e.g. March–July for birds, spring emergence period for reptiles and amphibians). Schedule blasting during midday hours, when nocturnal and crepuscular species are less active.
- Prepare and implement an Adaptive Management Plan for avifauna that includes operational bird and bat monitoring (PCFM aligned with good international practice). This may take the form of a separate plan or build on/adapt the approach taken for Enerjisa's other YEKA-2 wind farm projects in the region that includes:
 - 1. PCFM Protocol for bird and bats, that includes monitoring of the effectiveness of mitigation measures
 - 2. Turbine Shut-down-on-demand (SDOD) / Curtailment Protocol
 - 3. Biodiversity Action Plan (BAP), as needed
- Design and operational mitigation measures for the Energy Transmission Line (ETL) will be implemented in coordination with TEİAŞ, which holds final authority over line design and construction. Enerjisa will carry out early consultation with TEİAŞ to discuss and recommend feasible mitigation measures in line with IUCN (2022) and Raptor Protection Slovakia (2021) guidance

Bats:

- Adjusting construction schedules for night-time activities to avoid sensitive periods when bats are most active. Limit activities to daytime hours as far as possible.
- In order to protect bat species, it is considered necessary to reduce the intensity of night-time construction works in the period from dusk to dawn (for the 3-month period June-August which is in order to protect bat species, it is considered necessary to reduce the intensity of night-time construction works in the period from dusk to dawn for the 3-month summer period which is considered the period of peak bat activity in the region and based on the baseline monitoring results).
- For night-time activities, where it is not possible to restrict these, implementing proper lighting protocols to minimize disturbance, such as preventing light spill outside of construction areas through use of directional cowls, directing light away from any adjacent natural habitats.
- Adjustment of turbine cut-in speeds will be implemented as an adaptive operational mitigation measure, triggered by the results of the Post-Construction Fatality Monitoring (PCFM) programme for birds and bats.

Community Health and

Safety

Community Health

- Dust suppression of construction sites and access roads at least three times daily during dry and windy conditions to suppress airborne dust.
- Covering of trucks transporting loose materials and enforcing speed limits on unpaved roads.
- Restricting construction activities to daylight hours to reduce nighttime disturbances.
- Using well-maintained machinery and installing noise barriers near sensitive receptors if necessary.

- Providing advance, verbal and visual notice to local communities especially vulnerable households such as illiterate individuals or elderly people about upcoming high-noise or high-traffic construction periods.
- Establishing an accessible grievance mechanism to report and address health-related concerns promptly.
- Training construction workers and subcontractors in fire prevention and accident response, with a focus on forested and remote areas.
- Ensuring uninterrupted access to emergency medical routes and services during construction.
- Collaborating with local health authorities to monitor and respond to any health complaints during peak construction periods.
- Conducting periodic health and safety audits to ensure compliance with mitigation protocols.
- Monitoring dust accumulation on forage in nearby fields and implementing additional dust suppression if needed to protect animal health.
- Conducting pre-employment health checks for all incoming workers. Implement regular health monitoring and maintain medical records for early detection of communicable diseases.

Traffic

- Developing a Detailed Traffic Management Plan (TMP) including:
 - Routing maps and delivery schedules.
 - Risk mitigation strategies for high-traffic periods and sensitive locations.
- Conducting pre-construction road safety assessments to identify high-risk segments and prioritize improvements.
- Organizing public consultations and awareness campaigns in Turgut and Çakmak to inform residents about:
 - Road use schedules and expected disruptions.
 - Emergency access protocols.
 - Safe behavior around heavy vehicles.
 - Deploying trained traffic marshals and flagmen at sensitive crossings (e.g., near schools, mosques, and markets).
- Apply of dust suppression measures (e.g., regular road watering) along haul routes.
- · Limiting transport activities to daylight hours where feasible to reduce noise impacts.
- Installing clear road signage, lighting, and speed control measures along affected routes.
- Ensuring all hazardous materials are transported in sealed, labeled, and certified containers while transporting and plan the route for safe practices.
- Ensuring temporary detours and safe pedestrian crossings are provided during road works.
- Monitoring traffic incidents and adjust mitigation measures as needed.
- Where road widening requires land acquisition, applying IFC Performance Standard 5-compliant compensation procedures.
- Ensuring continued access to agricultural plots and residences during construction.
- Conducting regular inspection and preventive maintenance of construction vehicles to reduce the risk of mechanical failure and traffic accidents. Poorly maintained vehicles will be restricted from site operations.

Security

- A risk assessment to identify potential security threats and community sensitivities.
- All security arrangements will be proportionate to the risks and are preventive and defensive in nature.
- The hiring of qualified local security personnel from within the Project Impact Area to enhance cultural sensitivity and community trust will be prioritized.
- All security personnel will have no history of criminal or abusive behavior and possess valid private security certifications.
- Provision of mandatory training for all security personnel on:
 - Human rights and dignity
 - · Conflict resolution and de-escalation techniques

- Cultural awareness and local customs
- Prevention of Gender-based violence (GBV), Sexual Exploitation, Abuse, and Harassment (SEA/SH)
- Community relations and grievance handling
- Rights of local communities to organize, assemble, and express concerns
- A Code of Conduct will be developed and enforced for all security and Project workers, including subcontractors. The Code of Conduct will be applied to prevent social conflict between population influx and local Project Affected Parties. Training will be provided for all workers on local customs, traditions and respectful behavior.
- Clear communication regarding respectful behavior, non-discrimination, and zero tolerance for abuse or harassment will be maintained.
- Prohibition to the use of firearms by all security personnel.
- Emphasis on non-violent, preventive, and defensive approaches to security.
- All personnel will be required to prioritize peaceful conflict resolution and avoid escalation.
- A controlled site access system requires official identification and registration for all visitors and workers.
- Access protocols do not restrict community movement or infringe on local rights.
- Community members will be able to use the existing community grievance mechanism to report any misconduct or concerns related to security personnel.
- Security personnel will be able to report concerns through the workers' grievance mechanism which will ensure confidentiality and protection from retaliation.
- Monitoring and documenting all security-related incidents and follow up with corrective actions as needed.

Visitor Safety

- All visitors will be always accompanied by authorized Project personnel during their stay at the construction site.
- Visitors will be briefed on site-specific hazards and safety protocols before entry.
- A visitor logbook will be maintained at all entry points.
- Visitor movements within the site will be monitored to ensure compliance with safety protocols.
- All visitors will be provided with and required to wear appropriate PPE (e.g., hard hats, high-visibility vests, safety boots) during their time on site.
- Visitors will not be allowed in high-risk or restricted areas (e.g., active excavation zones, turbine assembly areas) unless necessary and only under strict supervision.
- · Visitors will be informed of emergency procedures, including evacuation routes and muster points.
- First aid and emergency response teams will be on standby during all scheduled visits.

Blasting (if required)

- Provide at least 48 hours' advance notice of all blasting events using trusted and accessible communication channels (e.g., local leaders, SMS alerts, community boards).
- Coordinate blasting schedules with local routines to minimize disruption (e.g., avoid school hours, prayer times, or market days).
- Restrict all blasting activities to daylight hours to reduce stress and avoid nighttime disturbances.
- Ensure that all blasting is conducted under the supervision of certified professionals following national safety protocols.
- Apply dust suppression measures (e.g., water spraying) during and after each blast to minimize airborne particulate matter.
- Monitor noise and vibration levels at key receptors, including the nearest settlements and sensitive community infrastructure.
- Integrate blasting-related concerns into the Project's grievance mechanism, allowing residents to report perceived damage, health effects, or disruptions.

Maintain a blasting log and incident register to track community feedback and technical compliance.

Blade and Ice Throw

- Automatic shutdown protocols will be implemented when weather conditions fall below 0°C and icing risk is detected.
- Static and illuminated warning signs will be placed in areas where access may coincide with turbine operation, especially near service roads or infrastructure.

Subject	Proposed Mitigation Measures					
	Regular maintenance procedures will include checks and removal of ice formation before turbine reactivation.					
	A remote monitoring system will track environmental conditions and turbine status to anticipate icing events.					
	Shadow Flicker					
	• Implement operational controls to minimize shadow flicker exposure at sensitive receptors (especially with regards to T4), such as programming turbine shutdowns during peak shadow flicker periods if thresholds approach 30 hours/year, and establish vegetative screening by planting trees around affected areas to reduce visual impacts.					
Contractor	Contractors will comply with all Project Standards and implement required management plans, including mitigation measures.					
Management	• Contractors will obtain all necessary permits from the team responsible before commencing work on-site. They will be responsible for maintaining all standards for works that are categorized as high-risk (such as working at heights, electrical and welding works, lifting operations, etc.) according to the respective OHS management plan. The contractor is obliged to provide all necessary PPE.					
	Contractors will establish a system to identify and evaluate risks associated with materials, equipment, services, and labor, assessing the risks of non-compliance with Project Standards.					
	• The risk assessment will include a comprehensive hazard identification process focusing on health, safety, environmental impacts, community concerns, and compliance risks. The contractor must comply with the Hazardous Materials Management Plan (HMMP) for the management of hazardous waste and chemicals. All hazardous substances used by contractors on-site will be registered. The properties of all materials must be understood, documented, and integrated into procedures where exposure presents significant HSE risks.					
	All working places will be installed with proper safety signs to inform employees and visitors clearly and in time of current hazards and potentially dangerous situations, the prohibition of certain behaviors, the use of certain equipment, and guidance for emergency relief.					
	The contractor will follow plans indicated in the Waste and Wastewater Management Plan (WWMP) to collect, classify, transport, recycle and/ or dispose of waste and wastewater within the management system.					
	• Contractors will set up a system to evaluate suppliers' capabilities to provide materials, equipment, and services that comply with stated specifications, design criteria, and Project Standards. All evaluations and related actions will be documented.					
	All legislative requirements, including contractual obligations, will be documented as legal requirements in a record book maintained by both Enerjisa and its contractors.					
	All materials, equipment, services, and labor provided by contractors must meet required specifications for controlling health, safety, environment (HSE), community impacts, and compliance risks.					
	The contractor will assess all the OHS risks and specific OHS Management Plans in compliance with the general OHS Plan for the Project before site work begins will be prepared.					
	The Contractor will prioritize local employment opportunities and provide clear information on recruitment processes.					
	Processes for inspecting all contractor tools and equipment (e.g., construction machinery, personal protective equipment) to ensure they are safe will be prepared.					
Cultural Heritage	Archaeological immovable assets that are located on the Project Site and its area of influence may be buried or covered entirely with vegetation. For this reason, during the deforestation activities on the Project Site, the Client should conduct a visual inspection. In compliance with laws no: 5226 and 3386 and the 4th article of the revised law no: 2863, in case any movable-immovable cultural asset is encountered as a result of the activities conducted during the field preparation and construction stages, the activities should be stopped, and Museum Directorate of the Muğla should be notified immediately.					
	• Cultural Heritage Management Plan and Chance Find Procedure, which are necessary for the management of the "chance finds", have been prepared and presented in the Appendix G of the ESIA. All operators who are to be engaged in the soil works, and Project employees should receive training regarding "project requirements, protection of cultural and archaeological heritage, laws and legislations related with the archaeological and cultural heritage and cultural heritage management plan and chance find procedures".					
	• In cases when a chance find is encountered during the construction activities, further steps should be taken in accordance with the plans and procedures and the relevant bodies, and the Directorate of the Museum should be notified immediately. If any archaeologically potential asset is discovered, relevant instructions about the site's sensitivity should be shared with all construction teams a few days before the construction activities. The construction activities will be conducted using appropriate equipment and methods. The proper equipment will be identified together with the directorate of the museum and the construction teams.					
	Archaeological areas should be notified to the relevant museum directorates immediately.					
	• In the pre-construction period, meetings should be held with the mukhtars. Dates of the activities, rituals, etc., for local days or more extended activity periods planned to be held in the region should be learned through meetings with the mukhtars and local people. The community should be prevented from being affected by the construction in possible customary practices that can be experienced locally.					
	Mobility of the people and vehicles during the activities planned to be held in the region should not be prevented,					
	Transit routes should be arranged for uninterrupted access to areas regularly visited by the public,					
	• Contractors and subcontractors should be trained on the code of conduct, including their approach to relations with local communities, during the employment phase and at regular intervals throughout the Project.					

Subject	Proposed Mitigation Measures
	Information regarding intangible cultural heritage should be provided to contractors and subcontractors on any site-specific sensitivity/issue (e.g., festival locations, dates, events, etc.).
Emergency Preparedness and Response	Identify potential emergencies based on hazard assessment.
	Outline clear roles and responsibilities for the implementation of the EPRP.
	Outline procedures to respond to identified emergency situations.
	Outline procedures to shut down equipment.
	Outline procedures for rescue and evacuation.
	Maintain a list and location of alarms and schedule of maintenance.
	Maintain a list and location of emergency response equipment (firefighting, spill response, first aid kits, personal protection equipment for emergency response teams).
	Defining protocols for the use of emergency equipment and facilities.
	Implementing a schedule for periodic inspection, testing, and maintenance of emergency equipment.
	Clearly identify evacuation routes and meeting points.
	Implement a schedule of trainings and drills, including with local emergency response services (e.g., firefighters).
	Develop procedures for emergency drills.
	Maintain emergency contacts and communication protocols.
	Establishing procedures for periodic review and update of the EPRP.
zardous	Comprehensive inventory of all materials used in construction that may be classified as hazardous will be conducted and classified.
aterial anagement	Procedures for handling and storage of hazardous materials following manufacturer's instructions (SDS forms) will be implemented.
anagement	All hazardous material will be registered and dangers posed by these materials within the project site will be identified.
	• Fuel, oils and hazardous materials will be stored on an impervious and bunded base and drip trays will be used for fueling. No fueling activities will take place near (Approx 50m) the water resources or excavated lands if practically feasible. Where required, a diesel fuel station including an Above-ground Storage Tank (AST) will be installed at the at the contractor's compound to provide fuel to construction equipment, generators, machinery, plant and vehicles.
	All hazardous materials on site will be clearly labelled with appropriate symbols and handling instructions. Appropriate signage in the storage area to indicate the presence of hazardous material and require safety measures will be indicated.
	Hazardous material containers will be kept closed and will be stored in a way that they will not have chemical reactions.
	Onsite personnel will be trained in presence, handling, transport, and disposal of hazardous materials and emergency response management.
	Suitable PPE will be provided to staff handling hazardous materials and chemicals.
	The public will be protected from major hazards associated incidents or process failure with hazardous materials as well as nuisance issues related to noise, odors and other emissions.
	Proper communications and engagement with local communities will be done.
	• In case of heavy equipment that cannot move to a fueling point, appropriate trays will be used to refuel such equipment to prevent accidental drains into the soil and therefore in potential groundwater aquifers.
frastructure	Coordinate with local authorities to assess infrastructure capacity, especially for water and sanitation in Turgut.
d Services	Establish worker camp self-sufficiency to avoid drawing on village water and electricity systems.
	Support the rehabilitation of communication infrastructure in areas with poor GSM and internet coverage.
	Engage communities in planning for service continuity and emergency response, especially in areas with vulnerable populations.
	Establish a first aid and medical unit in the Project camp areas.
	The nearest equipped district or provincial state hospitals will be determined, and the necessary consultations and information will be made.

Subject	Proposed Mitigation Measures
	In case of damage to the local infrastructure, including but not limited to telecommunications, electricity, roads and water resources, immediate maintenance will be provided.
	A Project-specific Grievance Mechanism (GM) will be used to record, prevent and resolve the incident caused by the Project in the local infrastructure.
Labor ar	The Project will establish human resources policies and procedures in accordance with IFC PS2.
Working Conditions	Workers' contracts shall protect workers' rights and include the following coverage in accordance with ILO and IFC PS2:
	Wages, payment terms and social security
	• Benefits
	Work and job description
	Working hours
	Leave and holidays
	Leave for illness, maternity,
	Overtime payment
	Severance share
	Terms of termination/dismissal
	All direct or third-party workers will have and sign the Code of Conduct prohibiting child labor, forced labor, discrimination, gender-based harassment and violence as an annex to their contracts.
	The Project will protect the labor rights of all workers in all areas of activity, and will provide working and accommodation conditions in accordance with international good practices and IFC PS2.
	• A Labor Management Plan will be prepared within the scope of the Project and as part of the Project management system; define a project-specific management mechanism to manage and monitor the physical and social working conditions of workers, freedom of association, child/forced labor, non-discrimination and equal treatment, dismissal, worker grievance mechanism including GBVH complaints, workers hired by third parties, occupational safety and health provision and issues.
	• The human resources and human rights policy will establish a labor management plan, occupational health and safety plan, camp site management plan, training plan, retrenchment management plans, work and working conditions mechanism and ensure that all work and working conditions are managed in accordance with IFC PS2 as sub-plans of the E&S management system.
	• In addition to the mandatory OHS training, all workers will receive Project-specific safety, health, gender risks, social compliance, prevention of child and forced labor, non-discrimination, equality, grievance mechanism, worker rights training.
	• All workers will be able to start work by signing a contract and code of conduct and documenting the necessary conditions such as identity, criminal record, health status, education status, and documentation of necessary qualifications.
	• The issues written in the Code of Conduct, which is a part of the workers' contracts; all kinds of harassment, violence, discrimination, forced labor, child labor, and all attitudes, approaches, behaviors and sanctions that are not allowed and tolerated will be explained to the workers through training.
Land an	All compensation under the LRP will be provided at full replacement cost (i.e. reflecting the market value of the asset plus any transaction costs or other costs to replace the asset)
ivelihoods	Informal land users affected by the land acquisition will receive compensation for trees, crops, above-ground structures
	• During the recruitment process, priority will be given to those who lose their livelihoods due to the establishment of the Project, within the scope of employment opportunities that may arise under the Project.
	Beekeepers who are in the Project AoI or in areas that may be affected by dust and vibration will be identified before construction begins and hive transportation support will be provided by the Project.
	All construction activities will be limited to the designated areas and the assets, crops, roads, etc. damaged during the construction and transportation process of the Project will be compensated by the contractors.
	Support programs will be implemented in accordance with IFC requirements to reduce and compensate for livelihood loss during the period when access to lands is restricted.
	Efforts will be made to minimize impacts on forest lands by limiting the Project's construction area and promptly restoring damaged areas.
	Full compensation will be provided for any loss of business that occurs.
	The Project stakeholder engagement plan will also include and define the consultation processes required for the Project's LRP.
	A grievance mechanism will be established to address community concerns.

Subject		Pr	oposed Mitigation Measures
		•	Two Community Liaison Officers are employed to oversee the land acquisition process and address grievances within the community.
Landscape Visual	and	•	Where practicable, construction activities will be confined to designated areas to minimize visual impact.
		•	Wind turbines will be temporarily shut down during periods when shadow flicker is predicted to exceed the acceptable limit of 30 hours per year at identified receptors.
		•	Affected residents will be regularly informed about potential shadow flicker impacts through ongoing stakeholder engagement activities.
		•	Shadow flicker-related grievances will be regularly reviewed and addressed.
		•	Where shadow flicker is expected to exceed 30 hours per year over a total area of 1,575.00 hectares, tree planting will be implemented where practicable to reduce shadow flicker effects.
		•	Where practicable, temporary infrastructure such as storage areas and worker facilities will be placed in locations with natural screening.
		•	Dust suppression measures, such as water spraying on exposed surfaces and transport routes, will be implemented where practicable.
		•	Where practicable, artificial lighting used for nighttime construction will be downward-shielded to minimize light spill.
		•	Disturbed areas will be progressively restored as construction progresses, where practicable, to reduce long-term visual impact.
		•	Where practicable, turbine locations will be adjusted to minimize visibility from key viewpoints.
		•	Turbines will be painted in neutral, non-reflective colors to reduce contrast with the surrounding landscape.
		•	Where practicable, turbine blades will be painted in matte, non-reflective tones to minimize light reflection and reduce visual disturbance.
		•	Where practicable, vegetation buffers will be maintained or enhanced around key receptors to provide natural screening.
		•	Stakeholder engagement activities will be conducted, where practicable, to address concerns related to visual impacts.
		•	Where practicable, land rehabilitation measures such as grading and replanting will be implemented to restore the site's appearance.
Local		•	The Project will directly announce and inform all settlements within the AoI about job opportunities and service procurement opportunities in order to increase the local employment rate.
Employment Procuremen		•	Women's meetings will be held to announce job and employment opportunities to the local women workforce, and work demands will be determined.
		•	Transportation services will be provided to local settlements to increase women's employment.
		•	In order to ensure equal working conditions for men and women, an appropriate number of toilets, dressing rooms, rest areas, food and beverage facilities and service facilities will be provided.
		•	A grievance mechanism will be established and this mechanism will record gender-based complaints, workers' complaints and PAPs' complaints regarding the employment process, and necessary measures will be taken accordingly.
		•	The workers' grievance mechanism will also include a mechanism to evaluate GBVH complaints according to IFC PS2 and will be explained to all workers and implemented.
		•	Priority will be given to Project employment to those whose livelihoods are affected due to Project impacts.
		•	In order to provide maximum benefit to the local workforce, vocational development training opportunities will be provided to the employed local people.
		•	These trainings will be provided to workers without formal training after the temporary employment provided during the construction period ends, in order to improve skills of the workforce that will be laid off and to maintain their participation in employment.
		•	Collaboration will be made with local employment and vocational training institutions and trainings suitable for local opportunities and local sectors will be determined together with workers during the operation phase.
		•	Local and non-local workforce will be provided equal pay for equal work.
		•	Providing the project with food, cleaning, maintenance, service and goods needs by giving priority to villages and then districts.
		•	Determining the capacities of local cooperatives in the project area and providing service from these organizations and providing support to cooperatives in advance about service delivery and conditions in accordance with IFC PSs.
Noise	and	No	pise
Vibration		•	Only state-of-the-art machinery is used for construction work.
		•	Where practicable, noisy equipment will be sited as far away as possible from receptors.
		•	Where practicable, noisy equipment will be orientated to face away from the receptors at which moderate or major noise impacts are predicted.

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- Alternatives to diesel and petrol engines and pneumatic units, such as hydraulic or electric-controlled units, will be used, where practicable.
- Where practicable, stationary equipment will be located in an acoustically treated enclosure.
- Throttle settings will be reduced, and equipment turned off, when not being used.
- Onsite chutes and bins will be lined with damping material.
- Equipment will be regularly inspected and maintained to ensure it is in good working order. The condition of mufflers will also be checked. Equipment will not be operated until it is maintained or repaired, where maintenance or repair would address the annoying character of noise identified.
- Compressors, generators, and pumps fitted with properly lined and sealed acoustic covers or enclosures, which will be kept closed whenever the machines are in use, will be used and all ancillary plant (e.g., generators, compressors) will be positioned so as to cause minimum noise disturbance.
- Mufflers or silencers of the type recommended by manufacturers will be fitted.
- For machines with fitted enclosures, doors and door seals will be checked to ensure they are in good working order; also, that the doors close properly against the seals.
- Machines in intermittent use will be shut down in the intervening periods between work.
- Excavated material will be stored between the construction site and the sensitive receptor to form a natural noise barrier (with cover to avoid dust erosion).
- Drop height of materials will be minimalized.
- Advantage of the natural topography for noise shielding will be taken.
- Speed limits (e.g., 30 km/h) will be implemented for trucks while travelling to and from construction sites (as well as within buildings and on village roads of poor condition).
- Slow driving rules in villages (e.g., 30km/h) will be implemented, particularly near sensitive use areas which will be identified (at least one month) prior to the start of construction related activities.
- Project traffic routing through community areas will be reduced wherever possible.
- Dedicated site access roads that avoid routing through villages will be used.
- If necessary, to avoid narrow areas near receptors, construction of a new access road will be considered.
- Hours of operation for specific equipment or operations (e.g., trucks or machines operating in or passing through community areas) will be limited.

Vibration

- Implement a vibration monitoring program at sensitive receptors during construction activities to ensure compliance with established limits (5 mm/s for continuous vibration in residential areas).
- Employ equipment designed to minimize vibrations, such as anti-vibration pads or mats under heavy machinery.

Blasting (if required)

If blasting is necessary, the following mitigation measures shall be followed:

- An appropriate and detailed protocol that minimizes the impacts on the surrounding areas will be drawn.
- The Maximum Instantaneous Charge (MIC) is the maximum mass of explosive detonated in any 8ms period throughout the blast. A reduction in the MIC would correspondingly result in a reduction of the air blast level. The MIC may easily be reduced by reducing the number of holes fired at any one time, resulting in air blast levels lowered by 1 dB Linear to 3 dB Linear. In addition, a pre-blast assessment protocol plays an essential role in managing blast impacts.
- Use of appropriate charge mass design and loading.
- Application of an appropriate initiation sequence for each blast to minimize the possibility of hole interaction, i.e. avoid reinforcing effect and aim for a single hole initiation.
- Undertake an alternative blast design around identified geological features to avoid face burst and excessive air blast emissions.
- Use of appropriate quality stemming material and stemming height to enable correct confinement of explosive charges and therefore minimize air blast emissions.
- Use of an appropriate pre-blast meteorological condition protocol to avoid blasting in unfavorable weather conditions.
- Emergency Preparedness and Response Plan needs to be implemented, including control of third-party access to blasting areas (including animal grazing activities).
- Blasting should be conducted according to a consistent timetable agreed with the stakeholders who may be affected. If changes to the blasting timetable occur, nearby communities should be immediately informed of those changes.
- Residents of the local communities will receive a written notification at least 30 days in advance of nearby blasting as well as two more written reminders. This notification will include the blasting schedules, the name, address, and telephone number of the operator; identification of the specific areas in which blasting will take place; the dates and time periods when explosives are to be detonated; the methods to be used to control access to the blasting areas; and the type and patterns of audible warning and all-clear signals to be used before and after blasting.
- Access within the blasting area will be controlled to prevent the presence of livestock or unauthorized persons during blasting. Access will remain controlled until an authorized representative of the operator has reasonably determined that no unusual hazards, such as imminent slides or undetonated charges, exist, and access to and travel within the blasting area can be safely resumed.
- Blasting schedules will be distributed to the users of the grazing areas, residents, and local governments, including:

Proposed Mitigation Measures
a. The name, address, and telephone number of the operator
b. Identification of the specific areas in which blasting will take place.
c. The dates and time periods when explosives are to be detonated.
d. The methods to be used to control access to the blasting areas
e. The type of patterns of audible warning and all-clear signals to be used before and after blasting.
• Specific warning devices (e.g., horn signals and flashing lights) and procedures should be implemented before each blasting activity to alert all workers and third parties in the surrounding areas (e.g. local communities). Warning procedures should include traffic limitations along local roadways and railways.
Specific personnel training on explosives handling and safety management should be conducted.
Blasting permit procedures should be implemented for all personnel involved with explosives (e.g. handling, transport, storage, charging, blasting and destruction of unused or surplus explosives).
Blasting sites should be checked post-blast by qualified personnel for malfunctions and unexploded blasting agents, prior to resumption of work.
Particular attention should be given to all explosives handling phases to prevent theft/improper use.
Blasting blankets are also recommended to prevent rock and stone fly.
Blasting signs are to be conspicuously placed along the edge of the blast site and area where flying debris may occur.
A Blasting Management Plan shall be implemented including all the listed measures related to blasting.
• Protocols for safely shutting down construction works during severe weather will be established. Prior weather forecasts will be checked prior to commencement of work. In storms, hurricanes and extreme winds in general, access to site areas will be strictly prohibited.
Potable water supply will be available for drinking and hygiene purposes. A clean area for meals and food storage will be allocated.
• Safe access to all areas of the site including proper access roads and maintenance pathways will be ensured. Traffic Management methods will be prepared that include on-site and off-site traffic movements, risks, precautions and rules, and training requirements. This plan will also include driver training.
 Lock out/ Tag out will be used to prevent accidental or unauthorized access to all electrical power sources used during construction works.
• First aid kits and trained personnel will be available to respond to medical emergencies. Initial health examinations and periodic health examinations will be continuously performed and reported. Regular heal checkups for vulnerable groups (+65 and PAPs with chronic diseases) will be conducted.
Appropriate measures like hydration stations during hot weather and heated shelter, clothing in cold weather will be provided.
• Project will aim to reduce the number of accidents among project workers (whether directly employed or subcontracted) to zero, especially accidents that could result in lost work time, different levels of disability, or even fatalities.
Working alone will be avoided during all construction activities on site.
• If any work is related to remote working, the Project will ensure suitable communication equipment, trained and competent personnel, effective supervision, location tracking, a local emergency plan, and first aid-trained crew members.
• The site-specific emergency action plan will be prepared in accordance with IFC PS2 and will include all risks of the Project. The plan will be explained to all employees and necessary training will be provided.
• The Project will develop a non-conformance tracking procedure, non-conformance record log, non-conformance notification mechanism according to IFC PS2 and international good practices. This procedure and implementation process will be explained to all employees.
The Project will establish a near-miss notification mechanism, track near-miss situations with the necessary tools to make near-miss notifications, and include them in the daily toolbox provided.
• The Project will establish a near-miss reporting mechanism, and appropriate tools such as near-miss boxes and telephone lines will be provided for all Project workers to report near-misses. Near-miss reports will be monitored and analyzed, and will be included in the daily toolbox provided.
 Clear communication protocols for safety, including hazard related briefing will be developed.
 Training on construction safety, including fall protection, equipment operation and emergency response procedures will be provided. Construction specific modules will be available on site.
 New personnel will be trained on site in the risks associated with construction tasks.
Warning signs in construction zones will be installed.
 Construction materials and equipment will be clearly labelled to indicate hazards.
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Subject Proposed Mitigation Measures

- Workers' rights,
- Labor and social rights,
- IFC PS2 social compliance issues,
- SEA/SH issues,
- Worker grievance mechanism,
- Infectious diseases,
- Social and cultural harmony with the local community,
- Code of conduct and sanctions, prohibitions,
- HR policy and procedures training will also be provided during the induction process as listed in ESMS Policy.
- Workers will be trained to maintain a safe distance from mechanical parts of moving equipment. The correct tool for them will be used to prevent possible injuries.
- Noisy activities will be scheduled during designated time to limit prolonged exposure. Vibration damping tools will be used to minimize worker exposure. Refer to Noise and Vibration Management Plan for detail.
- Safety instructions and equipment will be provided to workers to ensure safety from electrical hazards, eye hazards and welding/hot works.
- Operators will be trained in safe operation of heavy vehicles.
- Adequate lighting in all construction areas will be installed to avoid visual fatigue, prevent glare and reflection to eyes.
- Loading and off-loading of large parts and components will be performed by suitable machine and suitable operator with valid certificates.
- All structures will be checked against the appropriate standards13 with working at heights systems fitted (such as scaffolding works in appropriate circumstances with erected, altered and dismantled by certified workers)
- Suitable exclusion zones will be established to protect workers from falling objects.
- Employees working at heights will be assured of their competence in working at heights.
- Hoisting equipment will be properly rated and maintained.
- All tools and equipment will be fitted with a lanyard, where possible and capture netting will be used.
- An approved tool bag will be used for raising or lowering tools or materials to workers on elevated structures.
- Emergency rescue methods and planning will be implemented during rescue operations to address potential emergencies (such as: personal accidents including fatalities, rescue from heights, material damage, epidemics, fire, spills, etc.).
- All information about the load (e.g., the size, weight) and lifting equipment will be provided and inspected.
- Where possible, exclusion zones will be established and maintained to prevent any unauthorized access to lifting areas.
- All supervisors, operators, and slingers will be ensured of their competency.
- Weather conditions will be checked before lifting large loads and the lifting equipment will be checked for their safe operating parameters.
- Identification and control measures for hazardous materials on site will be implemented. Safety Data Sheet (SDS) for all chemicals will be provided and workers will be trained in safe handling practices. Hazardous chemicals will be stored with proper containment to prevent spills. Refer to Hazardous Materials Management Plan and Spill Response Plan for detail.
- Air quality during construction will be monitored. Refer to Air Quality Management Plan for detail.
- Fire safety and prevention measures will be implemented. Safe handling of Asbestos Containing Materials (ACM) will be followed in case found in any structures.
- Personal protective equipment (PPE), such as hard hats, harnesses, lanyards, goggles/face shields, suitable gloves, steel-toed boots with slip resistant soles, flame resistant clothes for workers exposed to welding, and fall protection equipment for protecting workers from a variety of hazards, including falls, falling objects, electrical hazards will be provided.
- Workers will be trained in properly using and maintaining such PPE to reduce risks of accidents and injuries. PPE when damaged will be replaced.

¹³ E.g., International Electrochemical Commission (IEC), "IEC 61400"

GAIA WIND POWER PLANT	(WPP) PROJECT ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY
Subject	Proposed Mitigation Measures
	A clear, written policy that prohibits all forms of workplace harassment and violence, including gender-based violence and harassment (GBVH) will be established as included in ESMS Policy document.
	A code of conduct that outlines acceptable behavior and consequences for violations will be developed and enforced.
	Regular training will be provided for all employees, supervisors, and contractors on:
	Recognizing harassment and violence
	Bystander intervention
	Reporting procedures
	Respectful workplace behavior
	Gender sensitivity and cultural awareness.
Population Influx	• The project owner and contractors (including all subcontractors) are obliged to comply with national labor law, IFC PS2 and IFC PS4 and occupational health and safety requirements. A Labor and Working Conditions plan will be developed within the scope of the project and this plan will cover at least the following:
	During the construction process, all employees within the scope of the project, subcontractor employees will receive social conflict, GBVH, social and cultural requirements training in addition to their mandato training before starting work.
	All employees in the project will also sign the developed code of conduct in accordance with IFC PS2 as part of their contracts. The project will provide training on the content and scope of the code of conduct Project standards and code of conduct for all employees and provide refresher training to keep awareness high.
	Workers will be informed about the Project-specific Worker Grievance Mechanism during their initiation training and will be encouraged to use it.
	The accommodation, daily needs, food and beverage needs of all workers staying in the camp site or renting accommodation in other areas within the scope of the project will be met by the project.
	All workers will start work after their health reports are documented and regular health checks will be carried out and recorded in their personal files.
	• The Project's external grievance mechanism will be visible in all settlements within the impact area and will be accessible through communication channels appropriate to the social and cultural conditions of PAPs.
esource	Energy Use
Efficiency and Pollution	• Energy/Electricity efficient machinery and tools will be employed to minimize energy consumption (e.g. reduce loads of the energy systems, reduce losses in energy distribution, improve energy conversation efficiency, etc.).
Prevention	Lower carbon fuels will be used during construction phase.
	Water Use
	Opportunities for improvement in water use efficiency and water reuse will be identified and implemented.
	Specific water use will be assessed, and these operations will be benchmarked to available industry standards of water use efficiency.
	Water permits will be obtained in case groundwater or surface water usage as required by project activities.
	Water analysis will be conducted in line with WHO Standards if water is provided for human consumption purposes.
	The water distribution system at site (e.g. taps, toilet flushing, kitchen sinks) will be periodically checked to ensure that they are working properly and that taps are not left open when not in use.
	Alternatives will be arranged if water supply sources at construction site interferes with the requirement of local community demand.
	Raw Material Use
	Reuse, recycling, and efficient sustainable materials will be planned.
	The use of toxic or hazardous raw materials of chemicals will be either reduced or eliminated wherever possible.
	Waste reduction strategies will be implemented by reusing materials and recycling waste generated during construction. When your possible appears and professor as will be given by using existing account as a possible appears to the professor and professor as a possible appears to the professor as a possible appear to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appears to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor as a possible appear to the professor appear to the professor as a possible appear to the professor appear to th
	Whenever possible, general preferences will be given to using existing quarries over opening new quarries in case material supply is needed from quarries.

• Refueling will be done on site through competent operatives. Any fuel storage areas will be bunded appropriately.

Management of Air Pollution

Subject Proposed Mitigation Measures

• The project will implement technically and practically feasible options to avoid or minimize air emissions during construction of the project. For detailed mitigation plans, please refer to the Air Quality Management Plan (AQMP).

Management of Noise and Vibration

• Noise prevention and mitigation measures should be applied where predicted or measured noise impacts from a project facility or operations exceed the applicable noise level guideline at the most sensitive point of reception. Refer to the Noise Management Plan.

Pollution Prevention at surface and groundwater

- Wastewater from all construction compounds and the associated facilities at the project site will be either discharged into the local sewage network or treated before discharge.
- Wastewater generated during construction will be collected, treated, and disposed of in accordance with local regulations.
- Vehicles will be maintained as required, and oil leaks will be prevented. In case of any leakage, spill kits will be placed at various locations. Oil-water separators and grease traps will be used at refueling facilities.
- Spill prevention and response measures will be implemented, and spill kits will be readily available at construction sites.
- Stormwater will be separated from process and sanitary wastewater to reduce the volume of wastewater to be treated prior to discharge.
- Where practicable, stormwater management measures will be implemented to prevent water accumulation and reduce erosion risks.
- When water quality criteria allow, stormwater will be used as a resource.
- Surface runoff from potential sources of contamination will be prevented or segregated when prevention is not practical.
- Only appropriate erosion and sediment control measures (e.g., silt fences, sediment traps, and sedimentation ponds) will be implemented to prevent increased turbidity in nearby water bodies.
- Where practicable, vegetation clearance will be minimized to reduce soil erosion and sediment runoff.
- Where practicable, construction activities will be scheduled to avoid periods of heavy rainfall to prevent excessive surface runoff and erosion.
- Measures to prevent erosion from excavated areas and soil storage heaps will be implemented.
- Sediments will be prevented from flowing into surface waters and drainage channels by localized control measures (e.g., sediment fences, check dams, sediment basins), contouring to optimize slope angle and steepness.
- Wind erosion will be prevented via fencing and covering.
- Topsoil that is disturbed will be covered and protected with vegetation, mulch, or erosion-resistant material.
- Constructions of all drainage structures (e.g., culverts, sediment basins, and catch drains) will be carried out as early as possible.
- Identified existing drainage will be protected on site using measures like sediment barriers and buffer strips for erosion and sediment control.
- Only designated areas for fuel storage, vehicle maintenance, and refueling, with proper secondary containment, will be used to prevent groundwater contamination.
- Spill containment measures and emergency response plans will be implemented to prevent contamination of surface water and groundwater.
- Where practicable, a water quality monitoring program will be implemented to detect any potential contamination from construction activities.
- Only best practices for handling lubricants, hydraulic fluids, and other chemicals will be followed to minimize contamination risks.
- Where practicable, vegetated buffer zones will be maintained around water bodies to filter runoff and prevent pollution.
- Where practicable, disturbed areas will be restored and revegetated to enhance natural water infiltration and prevent erosion.
- Only best practices for waste and hazardous material management will be implemented to prevent contamination of water resources.
- If blasting is required, the following mitigation measures shall be followed:
- Limit the use of explosives to prevent the expansion of existing fractures and the formation of new micro-fractures, which could alter groundwater flow paths.
- Avoid conducting blasting and excavation activities during the December-March period when water surplus is most likely to occur. This approach will reduce the risk of particulate matter rapidly entering the hydrogeological system through fractured, highly permeable, and karstic structures.

Management of Wastes

GAIA WIND POWER PLANT	
Subject	Proposed Mitigation Measures
	Where waste generation cannot be avoided, projects will reduce the generation of waste, and reuse, recycle and recover waste in a manner that is safe for human health and the environment. Where waste cannot be reused, recycled or recovered, it will be treated, destroyed, or disposed of in an environmentally sound and safe manner that includes the appropriate control of emissions and residues resulting frequency the handling and processing of the waste material. Detailed measures are attached to a Waste and Waste Management Plan.
	Management of Chemicals and Hazardous Wastes
	• If the generated waste is considered hazardous, the project owner will comply with existing requirements for management (including storage, transportation, and disposal) of hazardous waste including national legislation and applicable international conventions, including those relating to transboundary movement. Where such requirements are absent, the owner will adopt alternatives for its environment sound and safe management and disposal. When hazardous waste management is conducted by third parties, project owners will use contractors that are reputable and legitimate enterprises licensed by the relevant government regulatory agencies and, with respect to transportation and disposal, obtain a chain of custody documentation to the destination. The project owner will ascertain whether licensed disposal sites are being operated to acceptable standards and where they are, the project owner will use these sites. Where licensed sites are not being operated to acceptable standards, waste will be minimized and sent to such sites and will consider alternative disposal options.
	Refer to Hazardous Materials Management Plan and Spill Response Plan for detailed mitigation measures.
Soil	Site-specific erosion and sediment control measures will be implemented to minimize soil loss.
	Where practicable, excavation and earthworks will be limited to only the necessary areas to reduce soil disturbance
	• Spill Response Plan will be implemented to avoid soil contamination from hazardous materials. Spill containment measures will be implemented, and emergency response procedures will be in place in case of leaks.
	Excavated soil and stockpiles will be stored in the determined excess excavated material storage areas away from water bodies and stabilized to prevent erosion.
	Erosion-prone areas will be stabilized through mulching, hydroseeding, or other appropriate soil protection methods.
	Only designated areas for fuel storage and vehicle refueling, with appropriate secondary containment will be used.
	Construction activities will be scheduled to avoid excessive soil exposure during heavy rainfall periods.
	Where practicable, access roads and work areas will be regularly inspected and maintained to prevent soil instability.
	Where practicable, drainage systems will be maintained to prevent water accumulation and soil erosion.
	Only controlled vehicle access will be allowed in sensitive soil areas to prevent excessive compaction.
	Where practicable, disturbed areas will be vegetated to restore soil stability and prevent erosion.
	Only controlled removal of infrastructure will be conducted to minimize soil disturbance.
	Where practicable, turbine foundations will be excavated in phases to reduce soil destabilization.
	Where practicable, erosion control measures will be implemented during decommissioning activities.
	Excavated material will be reused for site restoration where possible, with proper stabilization.
	All hazardous materials and waste will be properly managed and disposed of to prevent soil contamination.
Spill Prevention	on Spill Prevention
and Response	Use of double-walled tanks or impervious surfaces or secondary containment for fuel and chemical storage. The containers will be marked with chemical name and associated hazard
	Regular inspection of storage areas and containers will be carried out.
	Provision of spill kits at all storage and handling locations
	Designation of specific areas for refueling and maintenance activations. Drip trays will be used for such activities.
	Proper training for refueling and maintenance activities will be provided.
	Regular inspection and maintenance of equipment to prevent leaks. Worn or damaged parts will be replaced.
	All personnel will be trained in spill prevention, identification and reporting. Regular refresher training sessions will be conducted.
	Spill Response
	Spill will be assessed (Source, volume, substance and potential exposure), and personal safety will be ensured.

Subject	Proposed Mitigation Measures
	Spill will be contained by using appropriate methods (e.g., absorbents, berms).
	Spill will be reported to the HSE Director and relevant authorities. It will be then cleaned up using appropriate techniques and waste will be disposed of properly.
	Spill kits at strategic locations throughout the project facility will be provided. Regular inspections of spill response equipment will be done.
	Spills clean up and contaminated materials will be properly characterized and disposed of as hazardous waste.
	Emergency response measures include procedures for spill containment, cleanup, and reporting.
Vulnerable	To ease the process of accessing municipal services and health facilities if needed
Groups	• Specific protection measures during land acquisition processes involving elderly or dependent PAPs
	• Livelihood restoration support for households losing primary income sources. Project will provide support to the vulnerable households in the acquisition of new lands, especially when lands that are the source of income of elderly household members are expropriated.
	Women and vulnerable groups will be meaningfully involved throughout the entire plan development process.
Supply Chain	Suppliers and contractors will be screened through ESG-focused risk assessment questionnaires covering labour conditions, accommodation, child/forced labour, and non-discrimination.
	 Supply chain mapping will be maintained and regularly updated to ensure visibility of high-risk sourcing areas and suppliers. Country and material-based risk assessments will be conducted to identify risks of forced and child labour, gender-based risks and environmental concerns.
	All contractors and key suppliers will undergo labour and human rights risk assessments prior to engagement and periodically during the contract period.
	Corrective Action Plans (CAPs) will be developed for non-conformities identified during audits or assessments. CAPs will be tracked until closure.
Waste an	 Suppliers and contractors will be required to comply with internal responsible sourcing and human rights standards as part of contractual obligations. The wastewater will be collected at septic tanks then, will be collected periodically by vacuum trucks to be discharged to nearest licensed wastewater treatment plant.
Waste an Wastewater	 Non-recyclable waste will be collected in leak-proof containers.
	Waste will be transported regularly by the municipality or a licensed waste contractor to an approved disposal site.
	Waste segregation will be applied at the source where feasible
	Oil changes will be performed by authorized service providers only.
	Waste oil will be collected and temporarily stored in dedicated containers with secondary containment.
	Waste oil will be removed by licensed hazardous waste transporters and delivered to licensed recovery/disposal facilities
	Tires will be changed by authorized service providers.
	Waste tires will not be stored too long on-site; they will be delivered to licensed recycling facilities after removal.
	Scrap metal will be sorted and stored in a dedicated temporary storage area on-site.
	Recyclable materials will be sent to licensed facilities and non-recyclables will be managed through the municipal waste system
	Reusable packaging will be prioritized during procurement.
	Non-reusable packaging waste will be segregated and stored at the designated temporary waste storage area.
	Materials with scrap value will be sold to licensed facilities and other packaging will be handed over to the municipality.
	Faulty or obsolete electronic equipment will be delivered to licensed e-waste handling facilities.
	 Used batteries and accumulators will be collected in labeled collection boxes.
	Construction and demolition waste will be segregated on-site.
	Reusable materials will be recovered where feasible.
	Remaining waste will be transported to licensed disposal areas by a certified waste transporter. Medical waste generated on site will be collected in color coded. Jabeled, closed centainers.
	Medical waste generated on-site will be collected in color-coded, labeled, closed containers. Disposed will be corried out via licensed medical waste management consists.
	Disposal will be carried out via licensed medical waste management services

4.1 OVERVIEW OF ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM (ESMS) IMPLEMENTATION

The Environmental and Social Policy is an important pillar around which the Environmental and Social Management System (ESMS) is built. Enerjisa already implements a set of corporate-level ESMS policies including Social, Human Resources, Human Rights, Security, Non-retaliation, Business Continuity, Enterprise Risk Management, Policy for Zero Tolerance Against Violence and Harassment, ESG, Corporate Retrenchment, Social Responsibility, Code of Business Ethics Policies.

Enerjisa recognizes that E&S risk management is a critical issue that requires systems to monitor and control E&S in all Enerjisa's activities, in accordance with legal and applicable requirements. The E&S Policy describes Enerjisa's commitment to sustainable development and how it is fully integrated into Enerjisa's core business processes. The E&S policy of Enerjisa provides the basis for Enerjisa's entire ESMS, in compliance with i) national laws; ii) international commitments and declarations signed by Türkiye; and iii) international environmental, social and human rights standards and best practices specified in the ESMS.

To support effective implementation of mitigation and monitoring measures, following environmental and social management plans (ESMPs) are developed as part of the ESIA:

- Resource Efficiency and Pollution Prevention Plan
- Noise Management Plan
- Air Quality Management Plan
- Grievance Mechanism Procedure
- Stakeholder Engagement Plan
- Waste and Wastewater Management Plan
- Hazardous Materials Management Plan
- Spill Response Plan
- Occupational Health and Safety Plan
- Community Health and Safety Plan
- Contractor Management Plan
- Biodiversity Management Plan

In addition, the following plans are under development to further support the effective implementation of environmental and social management measures:

- Traffic Management Plan
- HR and Worker Management Plan
- Security Management Plan
- Accommodation Camp Management Plan
- Landscape and Visual Management Plan
- Biodiversity Action Plan

Emergency Preparedness and Response Plan

Enerjisa maintains oversight of all contractors and subcontractors through its ESMS framework. Contractors are required to comply with project standards and develop relevant management plans consistent with Enerjisa's requirements. Oversight mechanisms include contractor induction and training programs, regular site inspections, supervision by E&S teams and performance evaluations. Non-compliance triggers corrective actions or penalties while good performance may be recognized through incentives.

All ESMPs and procedures are subject to internal monitoring and periodic audits and results are reported to management for review. This structured approach ensures that environmental and social risks are effectively managed, mitigation measures are implemented as planned and continual improvement is achieved throughout the project lifecycle.

4.2 SUPPLEMENTARY STUDIES

According to the most up-to-date information received from the Client, an access road has been included in the Project design to provide access to the turbine locations during the construction. This road will facilitate the transport of materials and equipment between the main construction site and individual turbine platforms.

Following the recent modifications in the access road layout, supplementary studies are required to assess the potential environmental biological and social impacts resulting from these changes (see Figure 4-1).

As part of biodiversity studies, an Adaptive Management Plan will be prepared to monitor and protect birds and bats during the operation of the wind farm. This plan will follow international good practice (PCFM) and include regular monitoring to understand if any birds or bats are affected by the turbines. Turbine Shut-down-on-demand (SDOD) / Curtailment Protocol will be applied to be applied in a targeted and evidence-based manner where monitoring indicates increased collision risk.

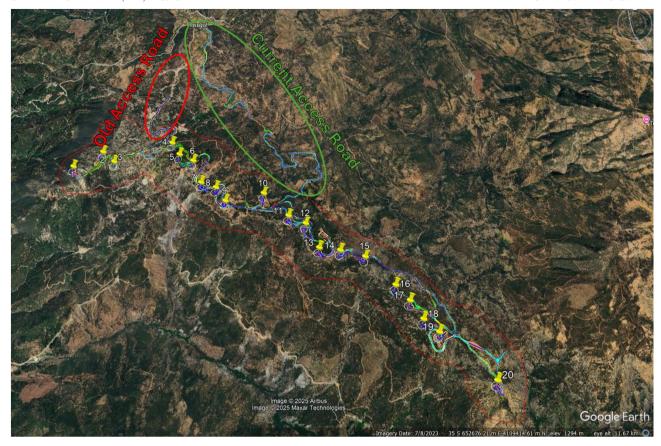


FIGURE 4-1 MODIFICATIONS IN THE ACCESS ROAD LAYOUT

5. STAKEHOLDER ENGAGEMENT

In order to inform about the investment within the scope of the Project and to receive opinions and suggestions regarding the Project, a Public Participation Meeting was held on 7 March 2023 in the Ula district of Muğla. During the meeting, participants expressed various concerns regarding the potential outcomes and possible damages within the Project's area of influence. Key issues raised included possible adverse impacts on Kavakçalı Neighbourhood and Nannam Stream, as well as concerns about the availability of open fields for beekeeping activities in Turgut village. Participants also mentioned the project's proximity to Turgut village, the delicate soil structure, and the potential effects of road construction during periods of heavy rainfall. Other concerns included potential impacts on wildlife, protected species, and beekeeping activities during construction, the effects of turbine transportation, benefits for nearby villages during operation, possible interference with radio signals, and the need to consider wetland conditions during construction.

Stakeholder Engagement is an ongoing process of ensuring meaningful participation of stakeholders in the Project process, sharing information, understanding stakeholder issues and responding to questions and concerns. ERM has prepared a Preliminary Stakeholder Engagement Plan (SEP) in 2024 in accordance with IFC's PS1 and EBRD ESR10, taking into account the Client's existing public engagement practices and procedures, national regulations and using the guidance contained in the IFC handbook 'Stakeholder Engagement' (2007). The SEP defines the framework for systematic identification and analysis of key stakeholders, planning and implementation of consultation activities and development of engagement measures tailored to

the needs of vulnerable groups. The SEP ensures that stakeholder communication is structured, transparent and aligned with national legislation and lender requirements.

ESIA social field studies were conducted on 20-23 March 2025. During this study, meetings were held with the mukhtars and PAPs of the settlements in the Project's impact area. Local stakeholders were informed about the current status of the Project, and their expectations and concerns about the Project were discussed.

The SEP document is revised based on the findings of the ESIA process and stakeholder consultations in 2025 to align with the lender's requirements and to support the implementation of the ESIA document. The revised SEP will be opened to consultation with the local community and these key stakeholders. Based on the results of the consultation and stakeholder feedback, the revised SEP will be published on the Project website for implementation.

In addition to the SEP, several other key Project documents namely Guide to Land Acquisition (GLAC), Biodiversity Management Plan (BMP) will be disclosed to ensure transparency and facilitate informed stakeholder engagement. These documents provide essential information on environmental and social aspects of the Project and will support effective consultation and communication processes. The stakeholders will be consulted during this process and will have the opportunity to express their opinions, concerns and suggestions regarding the Project.

The Client will provide transparent and timely information to affected communities and other stakeholders. The communication methods will vary depending on the Project phase, the issue at hand, and the type of stakeholder. These methods include, but are not limited to, the following:

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

These methods will continue during the construction and operational periods. Construction and operational managers of the Gaia WPP Project will maintain regular dialogue with the local Mukhtars of the affected settlements.

6. ESAP HIGHLIGHTS

As part of the environmental and social due diligence process conducted under the EBRD financing framework, a comprehensive Environmental and Social Action Plan (ESAP) has been jointly developed between Enerjisa Üretim and the EBRD. The ESAP outlines a series of targeted actions aimed at strengthening Enerjisa Üretim's environmental and social management systems, ensuring alignment with the EBRD ESRs, and enhancing overall environmental and social performance of Enerjisa Üretim at corporate and project level. The following highlights summarize the key commitments and progress areas agreed under this framework.

E&S Management and Systems

- Develop a Framework ESMP for construction and operations with roles, responsibilities, contractor oversight, training and monitoring components
- Prepare a Decommissioning Strategy
- Finalize and formally transmit all ESMPs/ESMS documents to contractors
- Update/amend construction management plans: Noise & Vibration, Hazardous Materials, Resource Efficiency, Waste & Wastewater, Air Quality, Emergency Response, OHS, CHS, and Emergency Response (where necessary)
- Develop additional construction plans: Traffic, Labour/HR & Worker Management (including Accommodation Camp Management), Security, Sediment & Erosion Control, and Blasting (if applicable)
- Develop operations management plans: Noise, Stakeholder Engagement & Grievance,
 OHS, CHS, Management of Change, Emergency Preparedness & Response (including spill response), and Security

Environmental & Social Assessments

- Provide Supplementary E&S Assessment covering ETL impacts, hazards, landscape/visual (including shadow flicker), resource use, waste, air quality, noise, GHG, climate risk, cultural heritage
- Provide Supplementary Cumulative Impact Assessment (CIA)

Permitting & Compliance

- Develop an up-to-date Permit Register
- Ensure approvals are obtained in a timely manner for blasting, water supply, electricity connection, land permits, etc.
- Confirm pasture parcel impacts, pre-construction permits, and expropriation compliance

Labour, Human Rights & Supply Chain

- Finalise and share Human Rights Assessment/Screening (including supply chain risks)
- Develop Corrective Action Plan for supplier gaps (when needed)
- Conduct Labour Audit (including overtime and fatigue management)
- Maintain and strengthen supply chain monitoring

Biodiversity & Ecology

- Conduct supplemental biodiversity assessments (birds, ETL impacts, aquatic habitats, dust, stone pines, habitat mapping)
- Update Critical Habitat Assessments (CHAs)
- Develop Biodiversity Action Plan (BAP) where needed or update Biodiversity Management Plans (BMPs) or develop Adaptive Bird and Bat Monitoring and Management Plan (ABBMMP),
- Engage TEİAŞ on bird diverters for ETLs

Cultural Heritage

- Confirm all project components included in surveys; conduct pre-construction walkovers if
- Appoint archaeologist for monitoring and deliver cultural heritage training
- Consult stakeholders on intangible heritage

Notify authorities of any heritage finds

Safety & Risk Management

- Finalise Slope Stability Action Plans for all sites
- Complete Road Safety Assessments (RSAs) for Gaia and Arturna; update Falp if needed;
 implement corrective actions at high-risk junctions
- Consult communities on Emergency Preparedness & Response Plans (EPRPs)
- Mobilise security personnel at Arturna

Land Acquisition

- Update Livelihood Restoration Plans (LRPs), disclose to stakeholders, and conduct gendersensitive livelihood studies
- Update socioeconomic surveys and census to cover all affected parties, including informal users (particularly those affected by ETLs)
- Conduct audit/review of past land acquisition to identify gaps, unpaid PAPs, and top-up payments

Stakeholder Engagement

- Maintain Stakeholder Engagement Plans (SEPs) for each WPP
- Monitor and document engagement and grievance mechanisms
- Review and update SEPs annually or when project changes occur

7. FURTHER INFORMATION AND CONTACT DETAILS

To ensure the public clearly understands both Enerjisa Üretim's overall goals and project-specific plans, Enerjisa Üretim adopts an open and transparent communication approach.

The public and relevant stakeholders can engage and share any comments, suggestions, questions, or grievances about the process. Further details on the grievance mechanism can be found in the SEP. Stakeholders can submit grievances:

- Verbally or in writing to the Project Community Liaison Officer (CLO), at the following contact details: yekares2@enerjisauretim.com
- By placing the grievance form in the designated complaint boxes located in common areas.

For additional information about the Project, Enerjisa Üretim can be reached with the following contact details:

- https://yekares2.enerjisauretim.com/en
- Barbaros, Lale Sok. My Office İş Merkezi No:1/16, 34746 Ataşehir/İstanbul, Türkiye; Telephone: +90 216 512 40 00, e-mail: kurumsal@enerjisauretim.com



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