

FINAL REPORT

Balabanlı Wind Power Plant Extension Project

Environmental and Social Due Diligence

Submitted to:

Borusan EnBW Enerji Yatırımları ve Üretim A.Ş.

Pürtelaş Hasan Efendi Mah. Meclis-i Mebusan Cad. No: 35/37 Salıpazarı,34427 Beyoğlu/İstanbul, Türkiye

Submitted by:

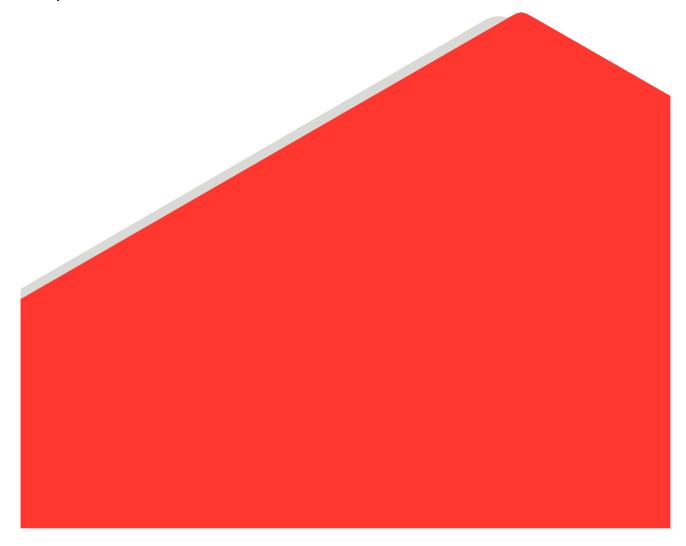
WSP Danışmanlık ve Mühendislik (Türkiye) Ltd. ŞTI

Hollanda Cad. 691. Sok. Vadi Sitesi No:4 Yıldız 06550 Ankara, Turkey

+90 312 4410031

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Acronyms and Abbreviations

Aol Area of Influence

BEE or Client or Borusan

EnBW Enerji

Borusan ENBW Enerji Yatırımları ve Üretim A.Ş.

CLSs Community Level Surveys

CRH Collision Risk Height

EBRD European Bank for Reconstruction and Development

E&S Environmental and Social

EHS Environmental, Health, and Safety
EIA Environmental Impact Assessment

EMRA Energy Market Regulatory Authority

EPs Equator Principles

ERP Emergency Response Plan

ESAP Environmental and Social Action Plan

ESDD Environmental and Social Due Diligence

ESG Environmental Social Governance

ESMS Environmental and Social Management System

ETL Energy Transmission Line

EU European Union

GBVH Gender-Based Violence and Harassment

GHG Greenhouse Gas
HR Human Resources

H&S Health and Safety

IFC International Finance Corporation

IUCN International Union for Conservation of Nature and Natural Resources

JHSU Joint Health and Safety Unit

KPIs Key Performance Indicators

LSA Local Study Area

MoEUCC Ministry of Environment, Urbanization and Climate Change

OG Official Gazette

OHS Occupational Health and Safety



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PDoEUCC Provincial Directorate of Environment, Urbanization and Climate Change

PM Particulate Matter

PRs Performance Requirements

PSs Performance Standards

RIAPC Regulation on Industrial Air Pollution Control

TCFD Taskforce for Climate-related Financial Disclosure

TEİAŞ Turkish Electricity Transmission Corporation

the Project Balabanlı Wind Power Plant Extension Project

TWSA Temporary Waste Storage Area

WHO World Health Organization

WPP Wind Power Plant

WSP Danışmanlık ve Mühendislik Ltd. Şti.

WWTP Wastewater Treatment Plant



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1.0 INTRODUCTION

WSP Danışmanlık ve Mühendislik Ltd. Şti. (hereinafter referred as "WSP") has been contracted by the Borusan ENBW Enerji Yatırımları ve Üretim A.Ş. (hereinafter referred as "Borusan ENBW Enerji" or "BEE" or "Client") for the provision of environmental and social ("E&S") services during the due diligence process of the Balabanlı Wind Power Plant Extension Project (herein after "the Project"). WSP exclusively offers services on behalf of the Lenders within the defined scope of the Project.

As part of these services, WSP prepared this Environmental and Social Due Diligence ("ESDD") report highlighting areas of concern or omissions so as to confirm the compliance or otherwise of the existing WPP and the Project with the applicable International Finance Corporation ("IFC") Performance Standards ("PSs"), European Bank for Reconstruction and Development ("EBRD") Performance Requirements ("PRs"), Equator Principles IV (EP IV) and current Turkish legislation. The report contains:

- 1) Proposal of a categorization of the Project according to IFC PSs, EBRD PRs and EP IV, in accordance with the potential environmental and social impacts of the Project;
- 2) Key summary of the Project's environmental and social impacts and mitigation measures;
- 3) Evaluation of the Environmental and Social Management documentation prepared for the Project and Management System implementation;
- 4) Evaluation of the Project's compliance with IFC PSs, EBRD PRs, EP IV and Turkish legislation regarding to environmental, biological and social components;
- 5) Review of stakeholder identification, analysis and engagement policy and practices relative to IFC PSs, EBRD PRs and EP IV;
- 6) An assessment of the environmental and social baseline data to ensure that they are robust enough to inform Project design decisions; and
- 7) Development of Environmental and Social Action Plan ("ESAP"): The ESAP sets out how the gaps identified in the previously prepared Environmental Impact Assessment ("EIA") & Environmental and Social Impact Assessment ("ESIA") reports and other environmental and social studies will be addressed and/or how the associated risks will be remedied.

2.0 METHODOLOGY

A gap analysis has been undertaken by WSP, against IFC PSs, EBRD PRs, EP IV and Turkish legislation.

In order to undertake this ESDD, WSP has examined the documentation provided by BEE, including BEE's corporate Environmental and Social Management Documents. Additionally, WSP has conducted site visits, field walkovers, and interviews with Project's employees and stakeholders.

An ESAP (APPENDIX C) has been developed to close the identified gaps in order to reach full compliance with IFC PSs, EBRD PRs, EP IV and Turkish legislation.

This report has been prepared based on the findings of the following:

- Desktop review of the Environmental and Social documentation provided by BEE;
- Biodiversity field survey conducted by local biodiversity expert Şafak Bulut (approved subcontractor of WSP on December 7th, 2023; and

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Site visit conducted by WSP Team: Elçin Kaya (Senior Social Specialist), Esra Güven (Social Specialist), Serkan Küçükünsal (Environmental Specialist), and Ceyhun Akdede (Environmental and H&S Specialist), on December 7th-8th, 2023.

2.1 Reviewed Documents

The list of documentation submitted to WSP by BEE is presented in APPENDIX D.

2.2 Site Visit

For the biological component of the Project, a field survey was conducted by local biodiversity expert Şafak Bulut (approved subcontractor of WSP) on December 7th, 2023, with the aim of assessing the biological aspect (flora and fauna) including ornithology.

For the E&S component of the existing WPP and the Project, a site visit conducted by WSP Team: Elçin Kaya (Senior Sociologist), Esra Güven (Sociologist), Serkan Küçükünsal (Environmental Specialist), and Ceyhun Akdede (Environmental and H&S Specialist), on December 7th-8th, 2023, to observe the environmental, H&S, and social aspects. During the site visit, stakeholder meetings conducted with mukhtars¹ and residents of the nearby settlements and also with landowners of the parcels that are subject to the land acquisition for the Balabanlı WPP Extension Project. Additionally, 5 workers were interviewed during the site visit.

WSP was accompanied by BEE representatives:

- Emel Yaşaroğlu (Environmental Process Lead Engineer),
- Burçin Denizalp (Project Manager),
- Oğuz Boztaş (Environmental Representative of the Balabanlı WPP),
- Serdar Altınçapa (OHS Representative of the Balabanlı WPP), and
- Ufuk Özkan (Adecco personnel).

2.3 Assessment Criteria / Project Standards

WSP assessed the Project in accordance with:

- Local, national, and regional environmental, social, health and safety laws and regulations, including national obligations under international law that apply to the Project;
- IFC PSs and related IFC Environmental Health and Safety ("EHS") guidelines, EBRD PRs, and EP IV; and
- Relevant EU substantive environmental standards, including (but not limited to) the pertinent requirements
 of the EIA Directive and Birds and Habitat Directives.

3.0 PROJECT DESCRIPTON

3.1 Project Background

Existing Balabanlı WPP

Balabanlı Rüzgar Enerjisinden Elektrik Üretim A.Ş. (hereinafter referred as "Balabanlı Enerji"), the special purpose vehicle ("SPV") established by BEE for the Balabanlı WPP, has been operating 22 turbines (with an

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¹ The headman of a village or a neighbourhood. A Muhtar is an elected local official responsible for representing the government at the community level. The Muhtar is elected by the residents of a neighbourhood or village.

installed capacity of 50.6 MWm / 50 MWe) since 2014 and an additional 3 turbines (with an installed capacity of 10.8 MWm / 10.5 Mwe) since 2017. The annual energy production capacity of the existing Balabanlı WPP is 192,000,000 kWh/year.

The evolution of Balabanlı WPP, along with the extension process to date, can be summarized as follows:

- A local EIA Report was prepared by Dokay Mühendislik in April 2009, and an "EIA Positive" decision was granted to Balabanlı Enerji by the Ministry of Environment and Agriculture (now the Ministry of Environment, Urbanization, and Climate Change ("MoEUCC")) on September 2, 2009, for installing 73 turbines with an installed capacity of 182.5 MWm (73 x 2.5 MWm).
- During the feasibility studies of the initial plan, the planned generation capacity was reduced from 182.5 MWm (73 x 2.5 MWm) to 50.6 MWm (22 x 2.3 MWm) due to the limit of TEİAŞ transformer connection capacity.
- For this purpose, an ESIA report was prepared by AECOM in June 2013. Following commissioning, Balabanlı WPP began operating with 22 turbines (T1-T22) in 2014 with an installed capacity of 50.6 MWm / 50 Mwe.
- Subsequently, a WPP extension was planned with the addition of 10 new turbines in two phases (3+7). To that end, another ESIA report prepared by AECOM in July 2017 to cover this extension. The first phase was completed, and 3 new turbines (T23-T25) were commissioned in 2017 with an installed capacity of 10.8 MWm / 10.5 Mwe (61.4 MWm / 60.5 Mwe in total). However, the second phase of this extension plan was not advanced.
- In March 2020, 0.9 Mwe power was commissioned, bringing the total installed capacity of Balabanlı WPP to 61.4 MWm / 61.4 Mwe.

Balabanlı WPP initially obtained the standard "49-year Electric Power Generation License" (License No. EÜ/3144-4/1900) for an installed capacity of 50.6 MWm on March 31, 2011, issued by EMRA. Several amendments have been made to the license to date. The most recently amended generation license (License No. EÜ-11974-10/05736) was obtained by EMRA on July 27, 2023, increasing the installing capacity to 97.4 MWm / 96.8 MWe.

The existing Balabanlı WPP is connected to the Tegesan Substation from the switchyard through an overhead energy transmission line ("ETL") of 154 kV with a length of approximately 10 km. The ETL for Balabanlı WPP was constructed in 2013. A Project Description File for the ETL was prepared and submitted to the Tekirdağ Provincial Directorate of Environment, Urbanization and Climate Change ("PDoEUCC") in 2013, and the "EIA Not Required" decision was obtained in 2013.

Basic technical specifications and coordinates of the existing turbines are given in Table 1.

Table 1: Basic Technical Specifications of the Existing Turbines

Turbine	Coordinates (UTM ED50)		Model	Turbine Power	Hub Height	Turbine Rotor Wing
	x	Y		(MW)	(m)	Diameter (m)
T1	550511	4553581	Siemens SWT-2.3-108	2.3	90	108
T2	550873	4553506	Siemens SWT-2.3-108	2.3	90	108
Т3	551098	4553269	Siemens SWT-2.3-108	2.3	90	108
T4	551350	4553066	Siemens SWT-2.3-108	2.3	90	108



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Turbine	Coordinates (UTM ED50)		Model	Turbine Power	Hub Height	Turbine Rotor Wing
	X	Y		(MW)	(m)	Diameter (m)
T5	551586	4552765	Siemens SWT-2.3-108	2.3	90	108
T6	551817	4552518	Siemens SWT-2.3-108	2.3	90	108
T7	552146	4552251	Siemens SWT-2.3-108	2.3	90	108
T8	552319	4551723	Siemens SWT-2.3-108	2.3	90	108
T9	552531	4551316	Siemens SWT-2.3-108	2.3	90	108
T10	552778	4551065	Siemens SWT-2.3-108	2.3	90	108
T11	552981	4550786	Siemens SWT-2.3-108	2.3	90	108
T12	553143	4550477	Siemens SWT-2.3-108	2.3	90	108
T13	553292	4550122	Siemens SWT-2.3-108	2.3	90	108
T14	553584	4549953	Siemens SWT-2.3-108	2.3	90	108
T15	553784	4549640	Siemens SWT-2.3-108	2.3	90	108
T16	553902	4549106	Siemens SWT-2.3-108	2.3	90	108
T17	553977	4548570	Siemens SWT-2.3-108	2.3	90	108
T18	554066	4548118	Siemens SWT-2.3-108	2.3	90	108
T19	554176	4547712	Siemens SWT-2.3-108	2.3	90	108
T20	554266	4547221	Siemens SWT-2.3-108	2.3	90	108
T21	554529	4546947	Siemens SWT-2.3-108	2.3	90	108
T22	554582	4546897	Siemens SWT-2.3-108	2.3	90	108
T23	551786	4551774	Siemens SWT-3.6-130	3.6	115	130
T24	552912	4549249	Siemens SWT-3.6-130	3.6	115	130
T25	553137	4548619	Siemens SWT-3.6-130	3.6	115	130

Planned WPP Extension Project

The Balabanlı WPP is planned to be extended with the addition of 6 new turbines (T26-T31), each with a capacity of 3.6 MW, increasing the total installed capacity to 96.8 MWm / 96.8 Mwe. With this extension, the annual energy generation at the Balabanlı WPP is projected to increase from 192,000,000 kWh/year to an estimated 300,000,000 kWh/year.

For the WPP Extension Project, BEE initiated the EIA process with an initial intent of 10 new turbines. The Project EIA Report was prepared by ENÇEV Enerji in January 2021, and an "EIA Positive" decision was granted on January 21, 2021. This decision covered the installation of 10 new turbines with a total installed capacity of 97.4 MWm / 96.8 Mwe (increase by 36 MWm / 35.4 MWe).

Due to licensing issues, the installation plans for the current WPP extension have been adjusted. The latest decision is to install 6 new turbines (T26-T31) instead of 10, maintaining the total capacity of 96.8 MWm / 96.8 Mwe by increasing the capacity of each turbine to 5.9 MWm / 5.9 Mwe. Four of these turbines align with the original plan outlined in the Project EIA Report, while the remaining 2 have been relocated.

According to BEE's Representatives the turbines to be used for the Project will be supplied from the Nordex Group.



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Considering the change in the number of turbines and the proposed installed capacity of the Project, an amendment to the existing energy generation license is required. According to the information provided by the Client, the application for the license amendment will be submitted to EMRA after the final specifications of the turbines are determined.

The Project does not involve the construction of new overhead ETL or a switchyard; instead, it will utilize the existing infrastructure. WSP has received the revised connection agreement with TEİAŞ, dated September 21, 2023.

In addition to the turbine installations, access roads to the new turbines will be constructed and underground cabling will be carried out as part of the extension Project. The layout, depicting the existing WPP units, planned turbines, and roads, is presented in Figure 1.

To compare the turbines analysed in the project background studies, Figure 2 illustrates a comparison between the ESIA study conducted in 2017, the local EIA study carried out in 2021, and the turbines incorporated in the final design for the Balabanlı WPP Extension project. Upon a general assessment, it is evident that the ESIA study from 2017 addressed 4 out of the 6 turbines within the current extension's scope. On the other hand, the local EIA conducted for 10 turbines encompassed all 6 turbines of the Balabanlı WPP Extension Project.

Basic technical specifications and coordinates of the Balabanlı WPP Extension turbines are given in Table 2.

Table 2: Basic Technical Specifications of the New Turbines

Turbine	Coordinates (UTM ED50)		Model	Turbine Power	Hub Height	Turbine Rotor Wing Diameter
	Х	Υ		(MW)	(m)	(m)
T26	551872	4551078	Nordex	5.9	118	168
T27	552135	4550718	Nordex	5.9	118	168
T28	553547	4550998	Nordex	5.9	118	168
T29	553027	4551639	Nordex	5.9	118	168
T30	557441	4549253	Nordex	5.9	118	168
T31	557593	4548359	Nordex	5.9	118	168



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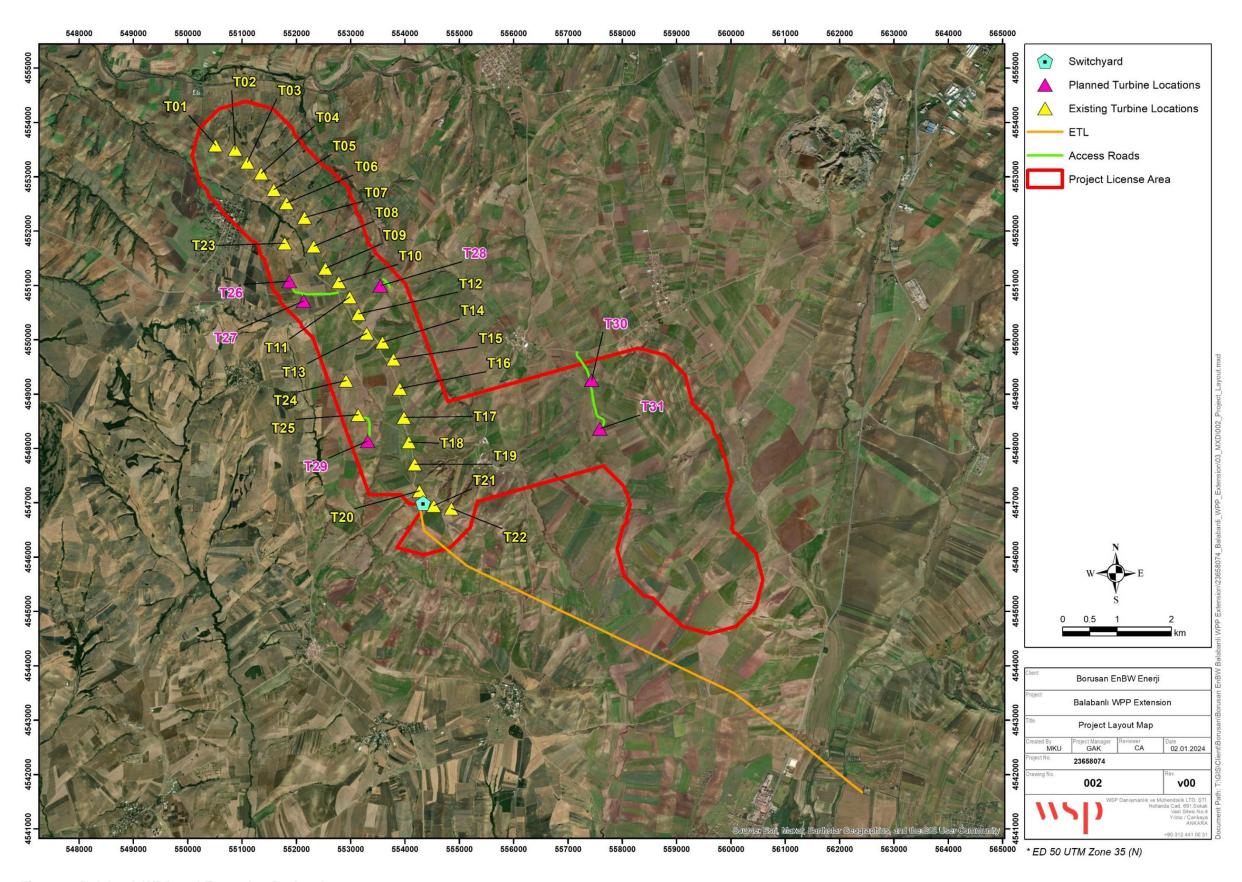


Figure 1: Balabanlı WPP and Extension Project Layout

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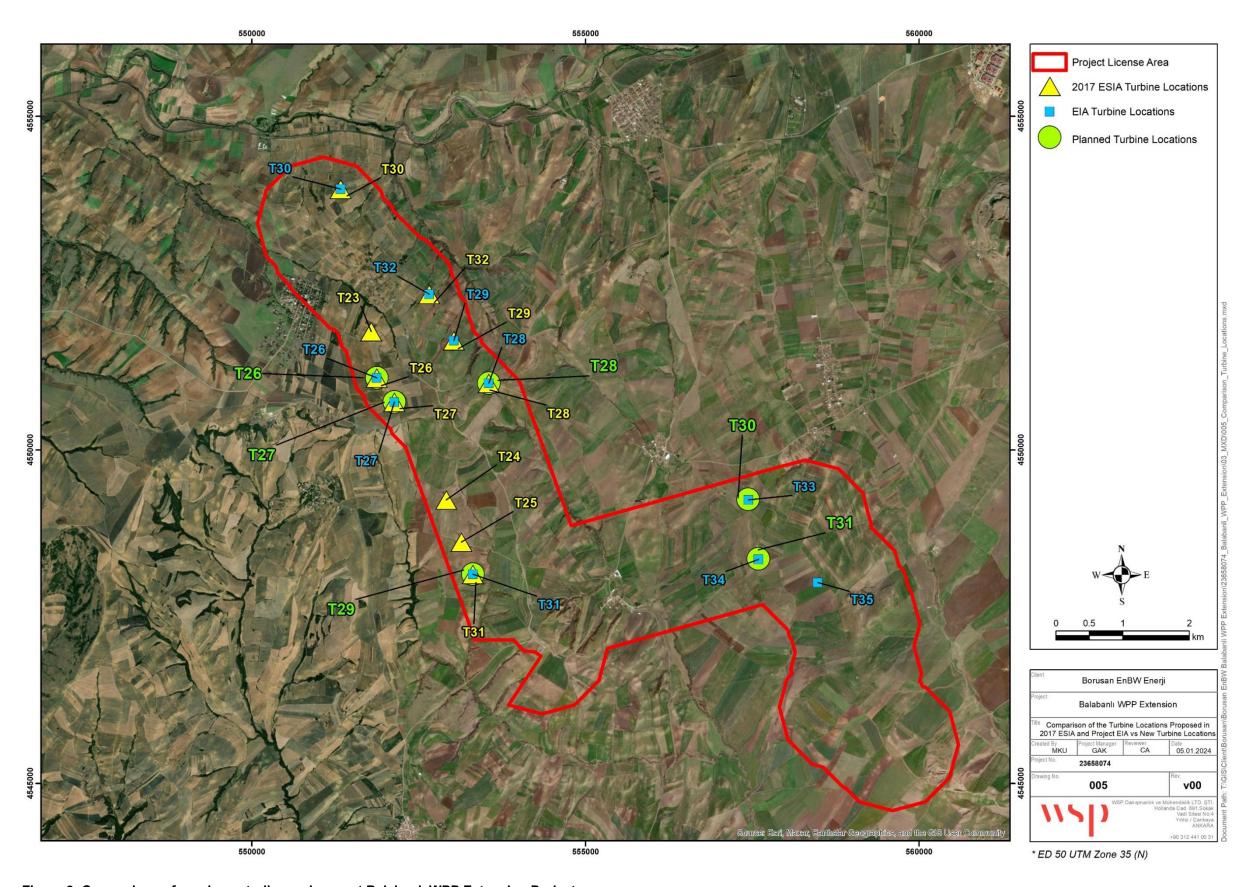


Figure 2: Comparison of previous studies and current Balabanlı WPP Extension Project

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3.2 Project Location and Identification

Balabanlı WPP is located within the boundaries of Balabanlı Neighbourhood and Çevrimkaya Neighbourhood of Muratlı District and Maksutlu Neighbourhood of Çorlu District, Tekirdağ Province, Turkey. The Project location map is presented in Figure 3.

Table 3 provides information on the nearest permanent settlements to the Project Area and their distances to the nearest turbines. The location and distance of these settlements to the Project Area are also illustrated in Figure 4.

During the site visit, it was observed that several unauthorized cabins (cottage) (Appendix B) had been constructed near some of the existing turbine locations. Site Representatives reported that these cabins are being used seasonally.

Table 3: Nearest Settlements and Their Distances to the Nearest Turbines

Province	District	Neighbourhood	Nearest Turbine	Distance to the Nearest Turbine (km)
Tekirdağ	Çorlu	Maksutlu	T22	0.76
Tekirdağ	Muratlı	Çevrimkaya	T24&T27	1.45
Tekirdağ	Muratlı	Balabanlı	T23	0.80
Tekirdağ	Çorlu	Deregündüzlü	T30	1.30
Tekirdağ	Çorlu	Yenice	T30	0.75



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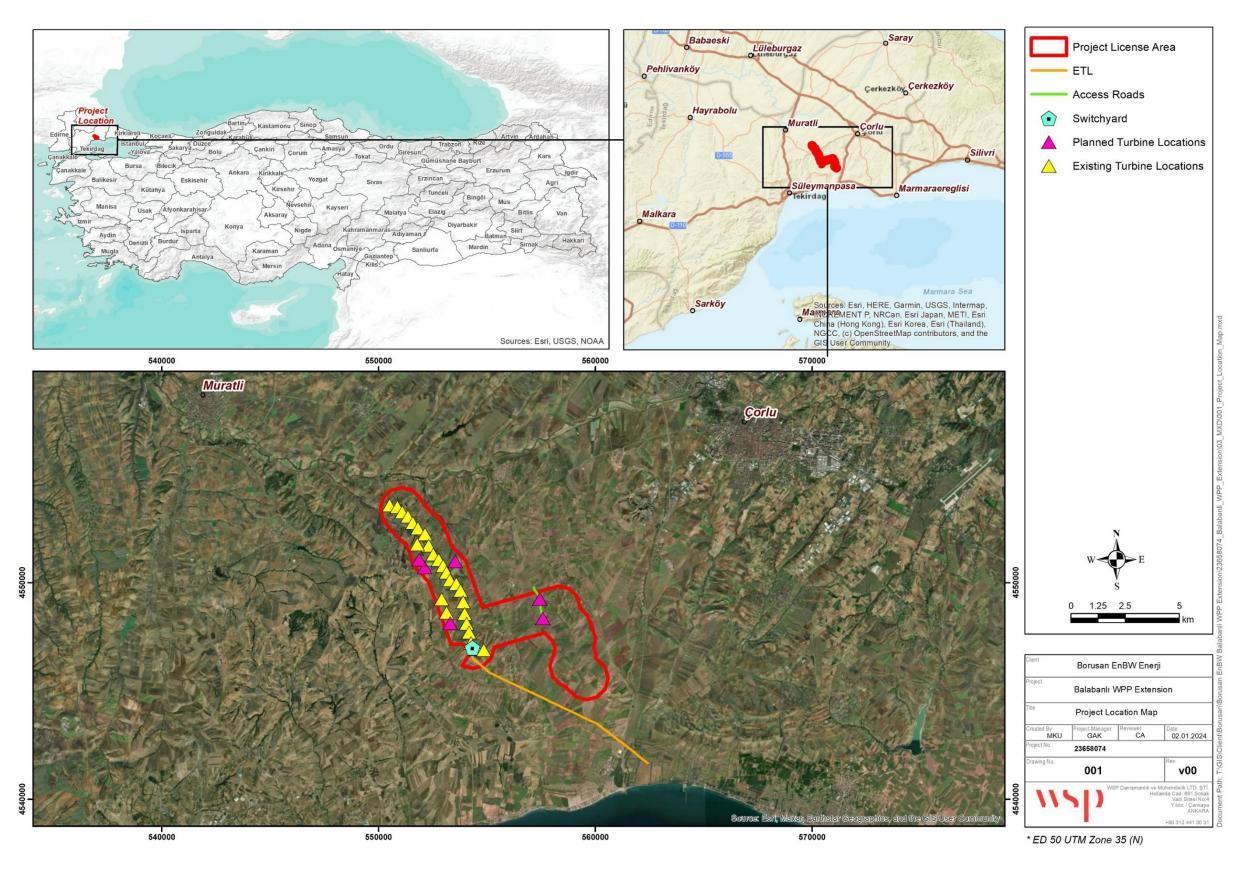


Figure 3: Balabanlı WPP Project Location

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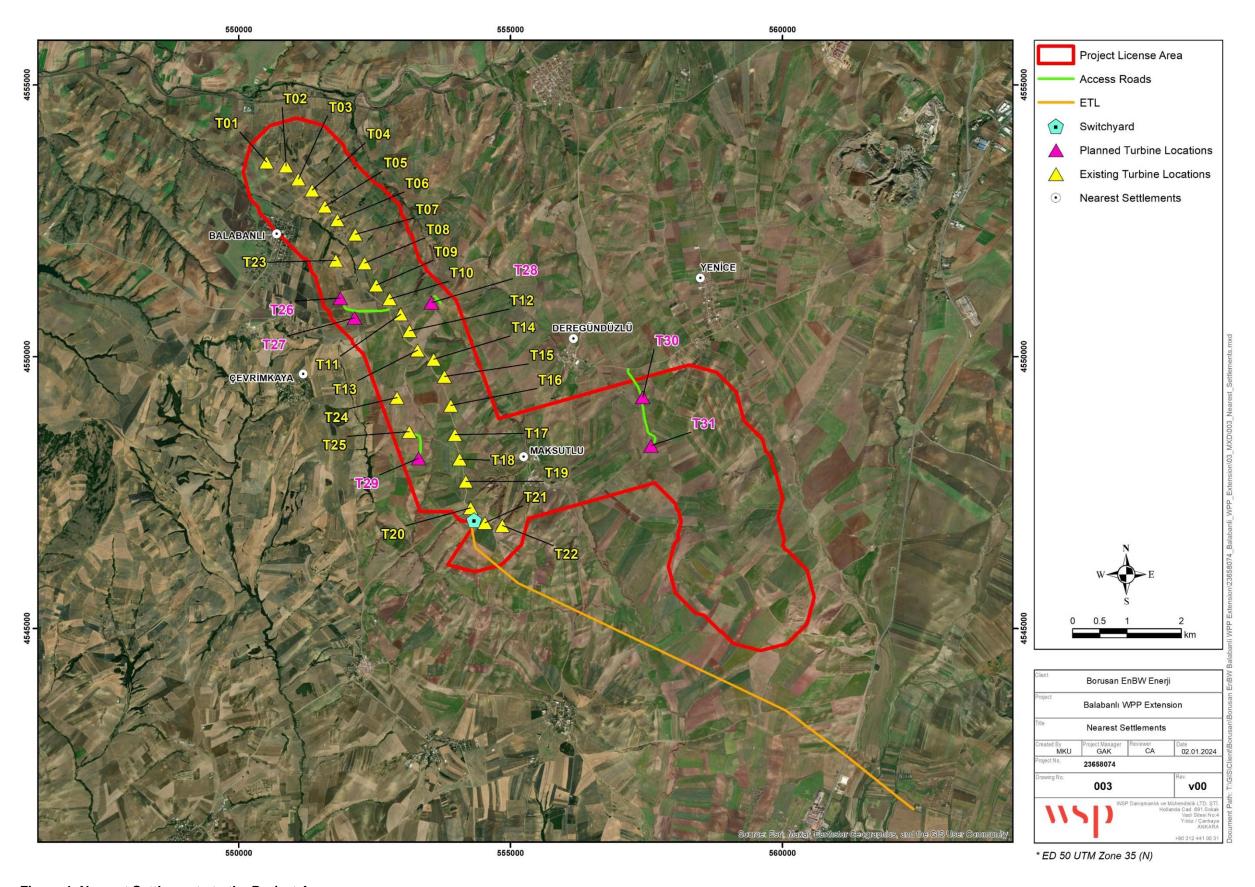


Figure 4: Nearest Settlements to the Project Area

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3.3 Land Use and Land Acquisition

The project aims to minimize land use by utilizing existing roads wherever possible, using the existing ETL and reducing the number of turbines.

According to the Project EIA Report, the exact quantity of agricultural land within the Project area is determined during mapping and expropriation procedures. During the expropriation of agricultural lands, the characteristics of these areas will be identified per the Soil Conservation and Land Use Law No. 5403, the Pasture Law No. 4342, and the Aquatic Products Law No. 1380. Before commencing construction activities, all necessary consultations and permissions will be obtained from the Tekirdağ Provincial Directorate of Agriculture and Forestry.

According to the information given by the BEE Representatives, there are private parcels that will be affected from the land acquisition process of the Balabanlı WPP Extension Project.

The Project will be located on agricultural lands, thus necessitating a land acquisition process. If the required area predominantly covers a significant portion of the land, the primary aim of BEE is to purchase the land through negotiation with the owners of the parcels. In cases where only a small part of the land is affected, expropriation will be pursued. After expropriation, the intention is to utilize only a portion of the expropriated land for the Project. Consequently, the remaining parts of the land will be made available for the original owners/users' use. As an example; if a 20-decare land is to be expropriated only 4 decares (turbine pad area amount) will be actively used for the project. However, the landowner will receive compensation for the full 20 decares and can continue to use the remaining 16 decares.

The expropriation processes within the Project scope will be carried out in accordance with Expropriation Law No. 2942 and IFC PS 5.

3.4 Project Schedule

Within the scope of the Project, the construction phase is estimated to last for 9 months, while the economic lifetime of the Project is estimated to be 49 years. The detailed Project schedule provided by BEE is presented in Figure 5. According to the Project EIA Report, it is planned to work 24 days a month, 10 hours a day, and in a single shift during the construction period of the Project.

Electrical and electromechanical works will be carried out simultaneously with the installation of the turbines. After that, operational tests will be carried out and the Project will become operational.



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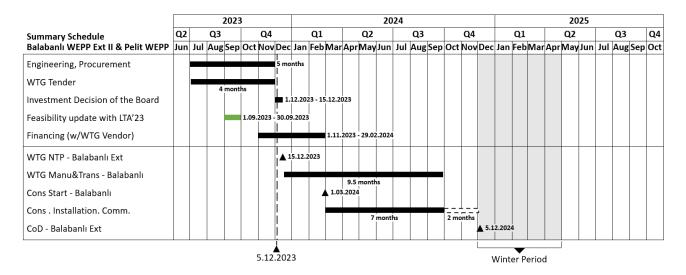


Figure 5: Project Schedule

3.5 Assessment of Alternatives

An analysis of alternatives for the Project has been conducted focusing on the following topics:

- No project option;
- Technology alternatives; and
- Location alternatives.

No Project Option

The "no project option" implies that the Project will not be realized (i.e., the no-go alternative). In this scenario, no construction activities will occur, resulting in no positive or adverse environmental and social impacts or risks connected to the Project. Furthermore, no socio-economic benefits would occur for nearby communities and the government.

Table 4 provides a summary of the comparison between realizing the Project versus the no-project option in terms of key economic, socio-economic, and environmental indicators.

Table 4: No Project Option Assessment

Impact	No Project Option	With Project Option
Economic Impacts	No revenues to national government.	Revenues to national government.
	No opportunity to enhance or decrease foreign energy dependence affecting economic policies.	Further enhancement or decrease in foreign energy dependence affecting economic policies.
Socio-Economic Impacts	No direct negative impacts on local communities.	Some minor impacts on local communities in terms of visual impacts.
	Lost opportunity for employment and skills enhancement.	Project may create opportunity for local employment, skills



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Impact	No Project Option	With Project Option
	Lost opportunity for local suppliers.	enhancement, and diversification of local economy.
		Project may create opportunity for local suppliers.
Environmental Impacts	No environmental impact.	Minor impacts on biodiversity components, such as faunal life
	No impact on biodiversity or natural resources.	(birds, bats, etc.) and habitat.
	natural resources.	Generation of renewable electrical energy instead of thermally sourced electrical energy with major environmental impacts, such as carbon emissions contributing to climate change, etc.
		Minor environmental impacts associated with land take and habitat loss.

Under the scenario of the Project proceeding, there would be some environmental and social impacts at the local level. However, these impacts are deemed to be outweighed by the potential positive economic effects the Project could bring, both at the local and national levels.

Technology Alternatives

The primary sources of energy production worldwide include petroleum, coal, and natural gas. However, the growing global population and the predominant use of these energy sources have raised environmental concerns. Wind power, the proposed energy production technology in this Project, stands out as a renewable energy source alongside others like solar, geothermal, hydro, and certain forms of biomass. The selection of wind power technology for the Project can be attributed to the following reasons:

- Türkiye possesses valuable wind potential, and harnessing this potential plays a crucial role in combating global warming. The Electricity Market and Supply Security Strategy Document of 2009 aims to generate 100,000 MW of electricity from renewable sources by 2023, with 20,000 MW targeted from wind.
- Investing in wind power contributes to reducing import dependency and provides national benefits. Unlike fossil-fuel power plants, wind farm projects do not emit air pollutants.
- The technology and operation of wind power are relatively simple.
- The investment cost of wind power is competitive with fossil-fuel power plants.
- Maintenance and operation costs are relatively low for wind power.
- Wind turbines require less space compared to fossil fuel plants, minimizing land usage.

Considering the above-mentioned advantages, the technology preferred for energy production in the Project is wind power.



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In accordance with the detailed assessment to minimize the environmental and social impacts of the Project, turbine technology to be used in the Project has been changed to increase efficiency. Based on that, the Project has been revised, and the number of turbines has been decreased from 10 to 6 by cancelling 4 turbines while maintaining the Project's total installed capacity.

Location Alternatives

The selection of the project location is a critical aspect, and alternative locations are evaluated based on various criteria to ensure optimal outcomes, including wind potential, infrastructure availability, environmental and social impacts, regulatory considerations, economic viability, and community engagement.

Considering the existing infrastructure (switchyard, ETL, etc.) is available for a capacity increase, the Balabanli WPP at its current location emerges as a feasible alternative since no new switchyard or ETL needs to be constructed.

As mentioned in the Project EIA Report, a wind speed of 7 m/s or above and a capacity factor of 35% or above are required for economical WPP investment. Turbine locations have been selected based on feasibility studies and wind measurements conducted to meet these criteria.

3.6 Area of Influence (AoI)

Within the Project EIA Report, the Area of Influence ("AoI") was defined as the area within a 300-meter distance from the license area, taking into consideration:

- The Regulation on Technical Evaluation of WPP Applications (Official Gazette dated October 20th, 2015, No: 29508), Article 2: 300 m buffer zone around the WPP.
- The Regulation on Industrial Air Pollution Control (Official Gazette dated July 3rd, 2009, No: 27277), based on construction emissions.
- The Regulation on Environmental Noise Assessment and Management (Official Gazette dated June 4th, 2010, No: 27601).

Considering the requirements of financial institutions, the Project AoI should be revised, taking into account the environmental and social impacts of various components of the Project.

The initial proposal for the AoI for each component is presented in Table 5 and illustrated in Figure 6, considering the sensitive receptors and areas in the vicinity of the Project Area. These areas should be evaluated and redefined based on the outcomes of any supplementary studies referenced in this ESDD.

Table 5: Preliminary Proposal for Aol

Components	Aol Definition
Physical	Physical The 500 m buffer area around the existing and new turbine locations, switchyard, and access roads to be opened needs to be included in the Physical AoI.
	Potential construction phase impacts (i.e., noise, dust, traffic, water use, etc.) need to be considered.
	Potential operation phase impacts (i.e., noise, shadow flicker, blade/ice throw risks, visual, etc.) need to be considered.



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Components	Aol Definition
Biological	Biological Aol needs to be designed as a 1 km buffer around the wind turbines and a 500 m buffer around the access roads and ETL.
	These buffers are considered as the limits beyond which no detectable effects on biodiversity are expected.
	The AoI should be established by taking into consideration the Key Biodiversity Area ("KBA") and Important Plant Area ("IPA"), Protected Areas boundaries.
Social	Social Aol needs to be determined considering the nearest settlements and recreational areas which may be affected by construction and operational activities, such as traffic, air quality, safety setback, noise, shadow flicker, etc.



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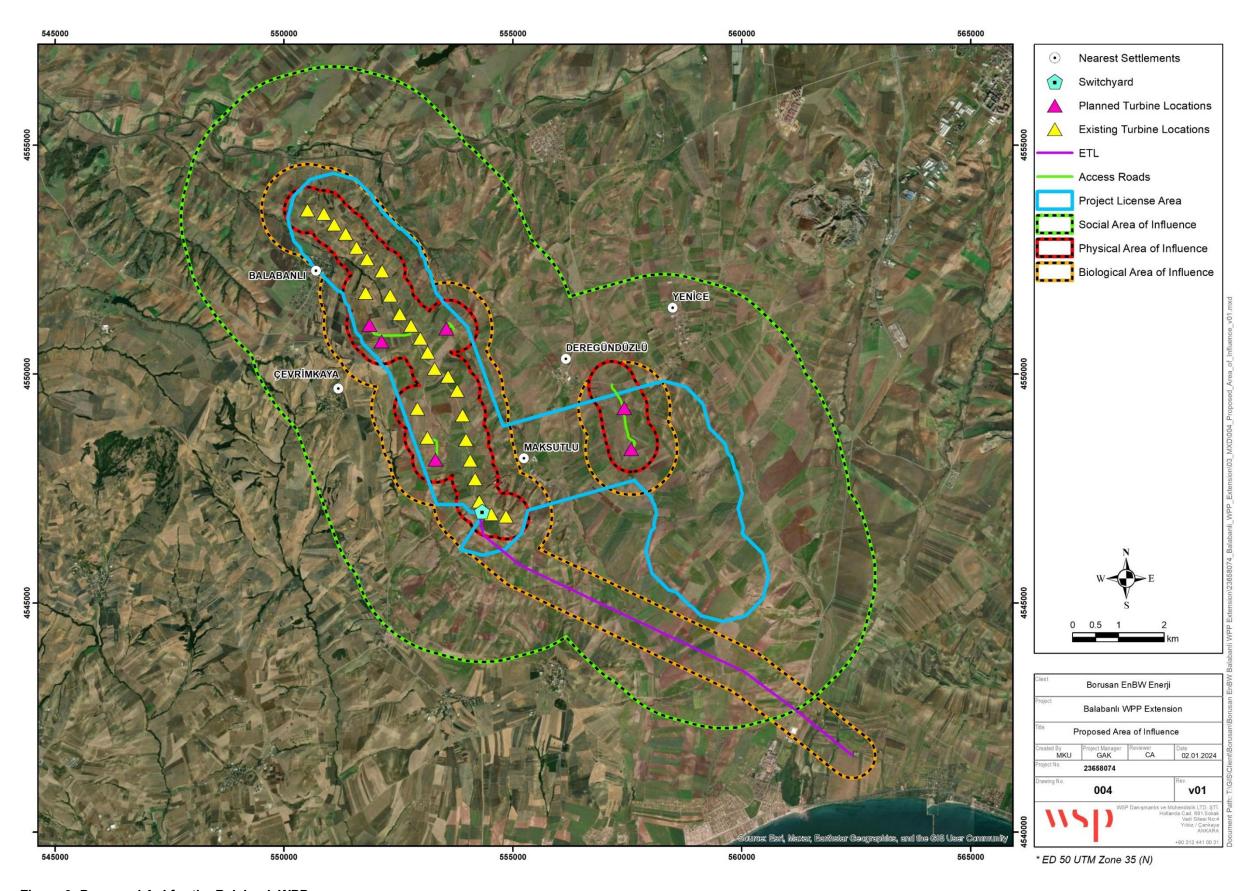


Figure 6: Proposed Aol for the Balabanlı WPP

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4.0 PHYSICAL COMPONENTS

4.1 Environmental Management

In the Balabanli WPP, there is an Environmental Representative appointed by BEE for the day-to-day management of the environmental issues including waste and wastewater management, resource efficiency, etc. ensuring compliance with environmental regulations and implementing sustainable practices. Details related to the management of each environmental issue for the existing WPP and considerations for the extension project are given in the below sections.

4.2 Project Environmental Permitting

Existing WPP

Balabanlı WPP was initially planned with the installation of 73 turbines, resulting in a total installed capacity of 182.5 MWm (73 x 2.5 MWm). For this purpose, a local EIA Report was prepared by Dokay Mühendislik in April 2009, and an "EIA Positive" decision was granted to Balabanlı Enerji by the Ministry of Environment and Agriculture (now the MoEUCC) on September 2, 2009.

Balabanlı WPP initially obtained the standard "49-year Electric Power Generation License" (License No. EÜ/3144-4/1900) for an installed capacity of 50.6 MWm on March 31, 2011, issued by EMRA. Several amendments have been made to the license to date:

- The license was amended on March 1, 2013, due to the title change of Balabanlı Enerji and the increase in capacity from 50.6 MWm / 50.6 MWe to 86.9 MWm / 60.5 MWe, by EMRA with decision No. 6074-33.
- On January 12, 2017, the license was amended due to the decrease in capacity from 86.9 MWm / 60.5 MWe to 61.4 MWm / 60.5 MWe, by EMRA.
- Another amendment occurred on September 5, 2019, due to the increase in capacity from 61.4 MWm / 60.5 MWe to 61.4 MWm / 61.4 MWe, by EMRA with decision No. 8813-19.
- The most recent amendment to the generation license (License No. EÜ-11974-10/05736) was obtained by EMRA on July 27, 2023, increasing the installed capacity to 97.4 MWm / 96.8 MWe.

The existing Balabanlı WPP is connected to the Tegesan Substation from the switchyard through an overhead ETL of 154 kV with a length of approximately 10 km. The ETL for Balabanlı WPP was constructed in 2013. A Project Description File for the ETL was prepared and submitted to the Tekirdağ Provincial Directorate of Environment, Urbanization and Climate Change ("PDoEUCC") in 2013, and the "EIA Not Required" decision was obtained in 2013.

Planned WPP Extension

The WPP Extension Project was initially planned with the installation of 10 turbines, increasing the total installed capacity by 36 MWm / 35.4 MWe (10 x 3.6 MWm / 3.54 MWe). For this purpose, the Project EIA Report was prepared by ENÇEV in January 2021, and an "EIA Positive" decision was granted on January 21, 2021.

Due to licensing issues, the installation plans for the current WPP extension have been adjusted. The latest decision is to install 6 new turbines (T26-T31) instead of 10, maintaining the total capacity of 96.8 MWm / 96.8 MWe by increasing the capacity of each turbine. Four of these turbines align with the original plan outlined in the Project EIA Report, while the remaining 2 have been relocated.

Considering the change in the number and locations of turbines and the proposed installed capacity of the Project, an amendment to the existing energy generation license is required and an EIA opinion letter needs to be obtained by the PDoEUCC. According to the information provided by the Client, the application for the license

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amendment will be submitted to EMRA, and the opinion letter from the PDoEUCC will be obtained after the final specifications of the turbines are determined.

The Project does not involve the construction of new overhead ETL or a switchyard; instead, it will utilize the existing infrastructure. WSP has received the revised connection agreement with TEİAŞ, dated September 21, 2023.

All the necessary permits required for the existing Balabanlı WPP have been obtained. The Project permitting status as of this report is summarized in Table 6.

Table 6: Project Environmental Permitting

Project Environmental Permitting	Issue Date
"EIA Positive" Decision for the capacity increase with the installation of 10 additional turbines (97.4 MWm / 96.8 MWe in total)	21.01.2021
EIA Opinion letter to be obtained from Tekirdağ PDoEUCC	Ongoing
Amended "Electric Power Generation License" for the updated design	Ongoing
Revised Connection Agreement with TEİAŞ	21.09.2023
Industrial Waste Management Plan Approval Letter for the new/revised Temporary Waste Storage Area	Prior to construction
Zoning Plan Approval (completed for 4 turbine locations and ongoing for 2)	Ongoing

No Permit Register has been prepared for the existing Balabanlı WPP or the Project. The corporate Permit Register Plan developed for BEE should be implemented for the Project, and a Permit Register, including the permits obtained thus far for the Balabanlı WPP and the status of ongoing permits for the Project, should be prepared and regularly updated.

4.3 Waste Management

Existing WPP

During the site visit, overall proper housekeeping was observed in general at the turbine locations, switchyard and office building. However, an accumulation of used materials from prior construction activities and empty diesel containers were observed to be stored improperly in an open area in front of the switchyard. Additionally, several empty wooden drums were found to be stored randomly behind the switchyard. According to the information provided by BEE, the disposal process at BEE is carried out in collaboration with the purchasing unit. Once the bidding process is over, these stored materials will be contracted and removed from the site.

There is a Temporary Waste Storage Area ("TWSA") located behind the switchyard and managed by the existing WPP operation. As the facility does not produce more than 1000 kilograms of hazardous waste per month, it is not required to obtain a Temporary Hazardous Waste Storage Permit. Balabanlı Enerji obtained an approval letter for the initial Industrial Waste Management Plan on February 10, 2020, which was valid until January 2023. The Industrial Waste Management Plan was updated on February 27, 2023, and submitted to the PDoEUCC. This plan outlines the anticipated amount and types of waste to be generated in the years 2023, 2024, and 2025.

During the site visit, the TWSA was observed to have two containers: a hazardous waste container and a recyclable waste container. The TWSA is equipped with a drainage system for managing potential leaks, connected to a sump pit. This system is regularly checked by employees and emptied as needed. While proper



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waste codes and storage were observed in the hazardous waste container, the following non-compliances were noted for the TWSA:

- No waste codes were specified in the recyclable waste container.
- Empty gas cylinders were found to be stored in the recyclable waste container.
- There was no displayed information regarding the responsible person for the TWSA.
- Despite the presence of signs, the eye wash and spill kits were not in their designated locations; instead, they were stored in the office areas.

Evidence that waste codes, information of the responsible person, and the eye wash and spill kits are in place was provided to WSP as of this report. It was also reported that the empty gas cylinders will be disposed of as metal waste.

The waste batteries were observed to be stored in a designated bin in the office building, and the bin intended for medical waste was observed in front of the building. However, it was noted that the medical waste bin lacked the "medical waste" label, and domestic waste was observed to be stored in the same bin. It was reported by BEE that the medical waste bin was removed from the site as of this report.

For medical, hazardous, and recyclable wastes, licensed companies were contracted, and these wastes were disposed of by these companies periodically or when the containers are full. The contracts with these waste collection companies were provided to WSP, and they are observed to be up-to-date.

The domestic wastes generated at the WPP are collected through bins in the office building and stored in containers located outside of the building. An agreement was signed with the Tekirdağ Metropolitan Municipality for the collection and disposal of domestic wastes, which are carried out weekly by trucks.

The amounts of generated wastes are recorded by type through a spreadsheet, and waste declarations to the MoEUCC are submitted through the Integrated Environmental System of the ministry. Sample declaration snapshots were shared with WSP.

The corporate Waste Management Plan developed by BEE addresses all operational waste concerns associated with the existing Balabanli WPP.

It is recommended to improve current waste management practices at Balabanlı WPP. BEE reported that efforts are underway with the OHS department to include the Balabanlı WPP in the scope of zero waste in 2024.

Planned WPP Extension

Information for waste management during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report.

According to the Project EIA Report, the types of wastes expected during the construction phase include domestic wastes, packaging wastes, medical wastes, hazardous wastes, end-of-life tires, excavation wastes, waste batteries, and accumulators. Based on this, the projected amount of domestic waste during the construction phase is anticipated to be 46.8 kg/day. As outlined in the Project EIA Report, all excavation material will be stored in designated excess excavation material storage areas until backfill activities are initiated.

During the operation phase, the Project is expected to generate domestic wastes and packaging wastes. The estimated amount of domestic waste during the operation phase is projected to be 11.7 kg/day. The wastes of the planed WPP Extension will also be collected in the current TWSA. As reported by BEE, new waste storage areas will be established for the Project activities and the necessary permits will be obtained for those areas.

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Considering that BEE has developed corporate Waste Management Plan, it is recommended to implement the corporate Waste Management Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases and wastes that are expected to be generated by contractor activities (e.g. waste oils to be generated during the maintenance activities, etc.).

4.4 Water Use

Existing WPP

The domestic water used at the existing WPP is supplied from the Tekirdağ Metropolitan Municipality and stored in an underground water tank located in the switchyard area. The agreement between the Municipality and sample receipts were provided to WSP.

Physical, chemical, and biological analyses of the domestic water used at the Balabanlı WPP are conducted every three months. Based on the analysis reports for 2022 and 2023 provided to WSP, all the analytical results met the regulatory standards.

Drinking water used at the existing WPP is supplied in plastic bottles by a third-party company.

Planned WPP Extension

Information for water use during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report.

According to the Project EIA Report, the water consumption for personnel during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. Notably, the report lacks specification regarding the amount of water allocated for dust suppression. It is committed in the report that the water required for the Project will be sourced from the Municipality and stored in the existing underground water tank at the WPP.

Considering that BEE has developed a corporate Pollution Prevention and Resource Efficiency Management Plan and Wastewater Management Plan, it is recommended to implement these plans for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

4.5 Wastewater Management

Existing WPP

The wastewater generated at the existing WPP is collected in an impermeable septic tank located in the switchyard area. It is regularly collected by vacuum trucks from the Tekirdağ Metropolitan Municipality and disposed of at the Altınova Wastewater Treatment Plant. The agreement document with the Municipality and sample wastewater collection receipts have been provided to WSP. During the site visit, no evidence of any leaks was observed in the vicinity of the septic tank.

The corporate Wastewater Management Plan developed by BEE addresses all operational wastewater concerns associated with the existing Balabanlı WPP.

Planned WPP Extension

Information for wastewater management during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report.

According to the Project EIA Report, the wastewater to be generated during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. It was committed in the report that the

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generated wastewater will be collected in an impermeable septic tank to be installed for the Project and disposed of the site by vacuum trucks of the Municipality.

Within this regard, considering that BEE has developed a corporate Wastewater Management Plan, it is recommended to implement for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

4.6 Air Quality

No air emissions are generated during the operational phase of the WPPs. However, during the construction phase of the Project, temporary and minor air emissions are expected, primarily resulting from activities such as excavating, loading, unloading, and the movement of vehicles.

Turkish Regulation on Industrial Air Pollution Control ("RIAPC"), published in the Official Gazette ("OG"), dated: 03.07.2009, No: 27277, Appendix-2) defines the standards to determine the impacts of the facilities on the ambient air quality.

According to the RIAPC, air quality measurements are to be carried out at 1.5 - 4 m distance from the ground and at least 1.5 m lateral distances from the building (or impact area). There are two sets of limit values defined by the RIAPC:

- Long term limit value: The arithmetical average of all measurement results. This value should not exceed the value in Appendix 2 Table 2.2 of the RIAPC.
- Short term limit value: When the measurement results are listed from largest to the smallest value, the 95% of these values should not exceed the limit value in Appendix 2 Table 2.2 of the RIAPC.

In accordance with the EU legislation adaptation, long term and short-term limit values are reduced annually, as listed in the Appendix 2 Table 2.2 of the RIAPC. These values are presented in table below.

Table 7: Air Quality Limit Values

Parameter	Period	2019-2023	Along with 2024
Suspended Particulate Matter	Short term	50	50
(PM ₁₀) (µg/m ³)	Long term	40	40
Settled Dust (mg/m².day)	Short term	390	390
	Long term	210	210
NO ₂ (µg/m³)	Hourly	250	200
	Yearly	40	40
	Hourly	350	350
	24 Hour	125	125
	Long term	60	60
SO ₂ (μg/m³)	Yearly and winter season (Oct 1 st – March 31 st) (for wildlife and ecosystem)	20	20



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International Standards

World Bank Group's General EHS Guidelines provide the standards for ambient air quality. These standards may be referenced when emissions do not result in pollutant concentrations that reach or exceed relevant ambient quality standards outlined by the national legislated standards or when such standards do not exist. WHO and EU Ambient Air Quality Standards are shown in table below.

Table 8: WHO and European Union Ambient Air Quality Standards

Parameter	Standard	Averaging Period	Guideline Value
Particulate Matter (PM ₁₀) (μg/m ³)	WHO ²	1-year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline)
		24-hour	150 (Interim target-1) 100 (Interim target-2) 75 (Interim target-3) 50 (guideline)
	EU ¹	1-year	40
	EO.	24-hour	50
Particulate Matter (PM _{2.5}) (µg/m ³)	WHO ²	1-year	35 (Interim target-1) 25 (Interim target-2) 15 (Interim target-3) 10 (guideline)
		24-hour	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) 25 (guideline)
	EU ¹	1-year	25 (effective from 1 January 2015) 20 (effective from 1 January 2020)
	1A/I 1O2	1-year	40 (guideline)
NO ₂ (ug/m ³)	WHO ²	1-hour	200 (guideline)
NO ₂ (μg/m ³)	EU ¹	1-year	40
		1-hour	200
	WHO ²	24-hour	125 (Interim target-1) 50 (Interim target-2) 20 (guideline)
SO ₂ (μg/m ³)		10 minute	500 (guideline)
	EU ¹	24-hour	125
		1-hour	350

¹ Directive 2008/50/EC, 21 May 2008, ambient air quality and cleaner air

² IFC General Environmental, Health, and Safety (EHS) Guidelines (WHO stands for World Health Organization)



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According to the Project EIA Report, no ambient air quality measurement was carried out for the Project.

As indicated in the Project EIA Report, the maximum emission rate from construction activities in the worst-case scenario was calculated to be 0.85 kg/hr, determined for the construction of 10 turbines. Since the calculated emission rate is below the limit value of 1 kg/hr, no air quality (dust) modelling study was conducted during the EIA process.

Additionally, no ambient air quality measurements have been carried out for the current Balabanlı WPP so far.

Considering the latest changes in the Project design (i.e., a decrease in the number of turbines and the relocation of proposed turbines) and the absence of measurements during the EIA process, it is recommended to conduct baseline air quality measurements (PM₁₀, PM_{2.5}, Settled Dust, NO₂ and SO₂) at the closest sensitive receptors, including but not limited to Yenice, Deregündüzlü, Maksutlu, Balabanlı, by taking into consideration to the latest project design and in accordance with international requirements defined below:

- PM₁₀ and PM_{2.5} measurements 24 hours continuously at each point,
- Settled dust measurements at three points (one at Maksutlu, one at Balabanlı and one in the area between T26, T27, and T28) - 2 months period,
- NO₂ and SO₂ measurements (passive sampling) at the closest sensitive receptors 2 months period.

This targeted approach to air quality monitoring reflects a consideration of the project's location, duration, and potential environmental impact, ensuring a focused assessment aligned with specific concerns or complaints that may arise.

Additionally, considering the current situation of the Project, it is recommended to conduct air quality measurements at baseline locations at least one time during the construction period (peak time).

Air quality measurement should be conducted during the operation phase if any grievance from the stakeholder received.

In addition, considering that BEE has developed a corporate Air Quality Management Plan, it is recommended to implement this plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

GHG Assessment

The National EIA assesses the impact on ambient air quality but does not include calculated greenhouse gas ("GHG") emissions based on Project activity and Project phase. **GHG emissions should be calculated for the construction and operation phases of the Project.**

To comply with the Taskforce for Climate-related Financial Disclosure ("TCFD") standards, it is necessary to create a GHG emissions inventory for the Project annually. This inventory, aligned with the air quality inventory, should encompass the following:

- GHG emission estimates, calculated annually, for both Scope 1 and Scope 2 sources.
- GHG emissions associated with each business activity, in coherence with the sources outlined in the air quality inventory.
- GHG emissions intensity specific to the Project.



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Detailed information regarding all data sources and assumptions employed during the development of the GHG inventory.

While the projected GHG emissions for the Project are expected to stay below 100,000 tonnes of CO₂ equivalent annually, a Climate Change Risk Assessment is required to achieve full compliance with EP IV requirements. Climate change Assessment will be conducted in accordance with "Equator Principles Guidance Note On Climate Change Risk Assessment"².

Corporate Air Quality Management Plan will be updated to incorporate the GHG aspects. This updated plan will be implemented for both the existing Balabanlı WPP and the Balabanlı WPP Extension Project.

4.7 Noise

In addition to the noise generated by the existing turbines of the Balabanlı WPP, noise generation is anticipated within the scope of the Project. This includes noise from the construction machinery to be used during the construction phase and the operation of the turbines during the operational phase.

National Standards

According to Regulation on Control of Environmental Noise (published in the OG dated: 30.11.2022, No: 32029, Appendix-2), noise level limit values are presented in Table 9 below. Based on that, the strictest noise limit values are defined as 65 dBA for day-time, 60 dBA for evening-time and 55 dBA for night-time.

Table 9: Regulation on Control of Environmental Noise Limit Values

	Regulation on Control of Environmental Noise (dBA)		
Noise Source	Day (07:00-19:00)	Evening (19:00-23:00)	Night (23:00-07:00)
Industrial facilities, transportation sources	65	60	55

International Standards

The noise limit values for the day-time and night-time are defined as 55 dBA and 45 dBA, respectively, according to the World Bank Group's General EHS Guideline. Additionally, according to the World Bank Group's General EHS Guideline, noise levels sourced from Project activities should not exceed the levels presented below or result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site. IFC's noise limit values are presented in table below.

Table 10: IFC Noise Standards

Receptor	Day-time (07:00-22:00)	Night-time (22:00-07:00)
Residential; institutional; educational	55	45
Industrial; commercial	70	70

² https://equator-principles.com/app/uploads/Guidance-CCRA_May-2023.pdf



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The noise measurements for the Balabanlı WPP were conducted in Balabanlı Neighbourhood as part of the baseline assessment during the ESIA studies in 2013 and 2017. The measurements were taken over 48 hours at 10-minute intervals. The average measured noise levels for both studies complied with the limit values specified in the Turkish regulatory and the World Bank Group's EHS Guidelines.

There is no noise measurement conducted during the EIA process of the Balabanlı WPP Extension Project. The noise emission calculations for the construction phase were made within the EIA Report. The results were evaluated according to the national legislation limit values in the EIA Report. According to the noise emission calculations for the construction phase, the Project related noise levels were determined below the regulatory limit values. Additionally, no construction activity is planned for the night shift.

The noise emission calculations conducted for the operation phase within the EIA Report. According to the calculations, the noise level at the closest sensitive receptor was determined as 45 dBA which was below the regulatory limit values at the time of the report.

Considering the noise generated by the existing turbines, it is recommended to conduct 48 hours baseline noise measurements (24 hours for weekend and 24 hours for weekday) with 12-15 minutes intervals, at the closest sensitive receptors to be determined prior to the construction phase of the Project.

Subsequently, it is recommended to conduct noise measurements at least one time at the baseline locations, during the construction period (peak time).

Considering the current situation of the Project, it is recommended to conduct operation phase noise modelling studies by taking into consideration to the latest project design and baseline noise measurements to be conducted.

Additional noise measurement should be conducted during the operation phase if any grievance from the stakeholder received.

Additionally, considering that BEE has developed a corporate Noise and Vibration Management Plan, it is recommended to implement this plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

4.8 Shadow Flicker Assessment

In general, shadow flicker may be a concern when potentially sensitive receptors are nearby. The impact can be more pronounced in higher altitudes, where the sun is lower in the sky, casting longer shadows that extend over a larger radius.

A Shadow Flicker Assessment was conducted by AECOM during the ESIA studies for the additional 10 turbines in 2017. However, since the 2 of the 6 turbines in the scope of the Balabanlı WPP Extension Project (T30 and T31) was not assessed in the ESIA (Figure 2) shadow flicker assessment should be updated.

Considering the changes in the design and the proximity of the unauthorized cabins to the existing turbines, it is recommended to conduct a new Shadow Flicker Assessment, including all the existing turbines and new turbines to be installed (31 turbines), in line with the following expectations:

- Utilize a software program accepted under Good International Industry Practice for the assessment.
- Perform shadow calculations based on worst-case scenarios (astronomical maximum shadow, considering the position of the sun).

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Simulate the situation by positioning the Sun relative to the WTG (wind turbine generator) rotor disk to calculate the potential shadow impact at a given shadow receptor.

- Obtain the following information for use in the assessment:
 - The position of the WTGs (x, y, z coordinates)
 - Turbine properties
 - The position of the shadow receptor objects (x, y, z coordinates)
 - Contour map
- Include unauthorized cabins as receptors in the assessment.

4.9 Blade/Ice Throw Assessment

The failure of a rotor blade can result in throwing, posing a risk to public safety. Additionally, there is a potential risk of ice pieces being thrown from the rotor, especially in specific cold weather conditions.

Documentation provided by BEE indicates that rotor blades of the existing turbines have been improved through modified process technology or with special filler material, ensuring sufficient durability even at low temperatures. As standard, the rotor blades are designed for temperatures down to -40°C. The rotor blade anticing system proactively heats the rotor blades to prevent ice accretion. With de-iced rotor blades, the turbine will be able to operate longer, even in case of icing conditions.

The Hub Height and Rotor Diameter of the existing turbines are 90 m and 108 m for the first 22 turbines (T1-T22) and 115 m and 130 m for the additional 3 turbines (T23-T25), respectively. Based on that, according to the World Bank Group's Environmental, Health, and Safety Guidelines for Wind Energy (2015), minimum setback distances for the existing turbines are calculated as follows:

Minimum setback distance = 1.5 x turbine height (tower + rotor radius)

Minimum setback distance for the first 22 turbines (T1-T22) = 1.5 x (90 m + (108/2) m) = 216 m

Minimum setback distance for the additional 3 turbines (T23-T25) = 1.5 x (115 m + (130/2) m) = 270 m

Minimum setback distance for the Balabanlı WPP Extension Project = 1.5 x (118+(168/2)) = 303 m

As stated before, there are unauthorized cabins constructed very close to the current turbine of Balabanlı WPP. Considering the proximity of some unauthorized cabins to the existing turbines, it is recommended to conduct a Blade/Ice Throw Assessment for the existing turbines that covers any unauthorized cabins within its setback distances.

Since nearest settlement to the Balabanlı WPP Extension Project Area is located 0.75 km away from the closest turbine location, it is expected that minimum setback distance will be met for the Project.

4.10 Visual Impact Assessment

Visual impacts associated with wind energy projects typically concern the installed and operational turbines themselves. The location of the site and the level of contrast between the existing environmental conditions and turbine structures play an important role on the level of visual impact.



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Visual impacts for the first 22 turbines (T1-T22) were assessed in the 2014 ESIA studies however no specific Visual Impact Assessment was conducted. A Visual Impact Assessment was conducted for the additional 3 turbines (T23-T25) during the 2017 ESIA studies.

The visual impacts of the Project were examined in the Landscape Restoration Plan, dated February 2020, as part of the Project EIA Report studies for the initial design of the 10 additional turbines. However, no official Visual Impact Assessment was conducted for the extension Project.

Given the lack of assessments for the first 22 turbines (T1-T22) and the 6 turbines (T26-T31) set to be installed within the Project's scope, it is recommended to conduct a cumulative Visual Impact Assessment covering both the existing turbines of the Balabanii WPP and those to be installed within the Project's scope.

5.0 BIOLOGICAL COMPONENTS

Balabanlı Wind Power Plant (WPP) was commissioned in 2014. The WPP site is located in the Thrace region of northwestern Turkey, covering an area of 12 km in length and 1.9-2.0 km in width in a northeast-southwest direction. It is located 16 km northeast of Tekirdağ province, 9 km southeast of Muratlı district and approximately 21.5 km southwest of Çorlu district, between 158-238 m above sea level. The habitat structure of the Project Area and its surroundings generally consists of anthropogenic areas and fragmented forest areas used by local people for agricultural activities and livestock grazing.

The Project Area consists of the existing turbines and 25 turbines located in a row along the ETL in an approximately northwest-southeast direction. It is planned to add 6 turbines within the Project Area and the necessary studies are ongoing. The distance between the turbines varies between 0.45 and 0.9 km. The turbines to be installed in the Project are planned to have a rotor diameter of 168 m and a tower height of 118m.

There are key biodiversity areas (KBA-IBA) around the Project Area at an average distance of 50 km as the crow flies. The most important of these areas are Saros Gulf, Terkos Basin and Marmara Islands (Figure 7).

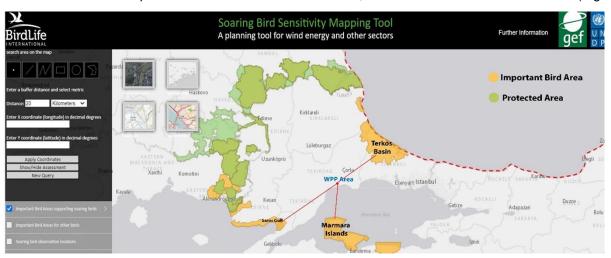


Figure 7: IBA and KBA

Monitoring studies on flora and fauna species have been carried out since 2014 within the scope of the Balabanlı WPP operation (Table 11).



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Table 11: Activities carried out within the scope of the Project

Bird Monitoring Report	Bat Report	Monitoring	EIA Repor	t	ESIA			
2013 Autumn	Not imple	emented	Baseline 2	009	2013-Fi Turbine		Report	(22
2014 Spring			Capacity 2021	Increase-	2017- Turbine	Final s)	Report	(10
2014 Autumn								
2015 Spring								
2015 Autumn								
2016 Spring								
2016 Autumn								
2017 Spring								
2017 Autumn								
7-8 December 2023								

- In the Project Area, ornithological monitoring was carried out in every migration period from 2013 until the fall of 2017, covering the pre-installation period. After that additional monitoring studies conducted between 2018-2020.
- Survey reports were prepared for pre-installation and extension studies within the scope of EIA reports.
- Within the scope of ESIA, necessary studies and reports were prepared for pre-installation and extension.
- No bat monitoring report has been identified to determine the impacts of the turbines on bat species before and after the installation of the Project.

Within the scope of this study;

- Flora-Fauna and ornithology reports, which were carried out within the scope of the Project since before the installation, were examined in detail one by one.
- Vantage points in ornithological monitoring reports and observations and data on bird species detected during migration periods were assessed.
- The vegetation types and habitats identified in the flora reports and the status of endemic species that may be found in and around the project site were checked.
- The observations made within the scope of the Project, the data obtained, and the evaluations of the reports prepared are given in detail in the following sections.

5.1 FLORA and VEGETATION

5.1.1 Priority Biodiversity Features and Potential Critical Habitats

Priority biodiversity features are a sub-set of biodiversity that is irreplaceable or vulnerable, but at a lower priority level than critical habitats as defined in EBRD PR 6.



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Some areas affected by the project may contain "priority biodiversity features" which include: (i) threatened habitats; (ii) vulnerable species; (iii) significant biodiversity features identified by a broad set of stakeholders or governments; and (iv) ecological structure and functions needed to maintain the viability of priority biodiversity features described in this paragraph ³.

No critical and endangered species were identified in the flora studies carried out within the Project Area within the scope of capacity increase during the flora studies conducted before.

5.1.2 Assessment of Previous Flora Surveys

Flora studies prior to the project installation and field studies were carried out in 2009 within the scope of the EIA. In the studies conducted, it was determined that the Project Site is dominated by the holm oak scrub community, gradually as it moves inland, Western Anatolian oak forest and then Thracian lowland steppe vegetation. Thracian lowland steppe vegetation is dominant in the areas where the turbine is installed.

During the observations made, it was determined that agricultural activities are intensively carried out by the local people around the Project Site and therefore vegetation destruction and losses are observed. The international protection statuses (BERN-CITES-IUCN) of the species identified in the studies were checked and no endangered species were identified. It was also stated that there is no Important Plant Area (IPA) on the Project Area.

According to the observations and literature data, 60 plant species were identified. 32 of these species were identified during the observations (Table 12). It is stated that there are no endangered species among these species. Within the scope of the Project, vegetation information on the installation points of the electricity poles within the scope of the ETL and information on the flora species found at these points are not included in the report. Measures to be taken before and after construction at the Project Area and measures to be taken for flora species are not included in the report.

Floristic field studies were carried out in January 2020 within the scope of the capacity increase of the Balabanli WPP Project. In the studies carried out by the expert, the entire flora of the area was not studied within the scope of the ecosystem assessment; the areas where new turbines will be installed in addition to the existing project area were scanned as much as possible; the species observed in the field during the study period were listed; the existing literature was evaluated and taxa were listed; notes were taken to determine vegetation types; and dominant species were identified and photographed.

During the field study in the WPP Project Area, both flowering plants and dry herbaceous species with flowering period were collected. The richest families in terms of number of species in the study area are Asteraceae 16, Lamiaceae 8, Fabaceae 6, Ranunculaceae 6, Rosaceae, Liliaceae and Caryophyllaceae 5 species each. There are no endemic species among the species during the period of field studies. Of the 98 taxa, 115 are herbaceous, 5 are shrubs, 2 are shrubs and 1 is in tree form. The flora species identified during the studies conducted in the areas where capacity increase was implemented are given in Table 13.

Necessary information on the identified species is given in detail in the report. In addition, vegetation information and field photographs of additional turbine locations are included in the report. The measures to be taken were determined by adding the Risk-Impact-Implementation Matrix for Construction and Operation Phases to the report.

When the flora monitoring report carried out within the scope of the WPP project before the initial installation and the monitoring studies carried out within the scope of capacity increase are examined, it is seen that the

³ EBRD Performance Requirement 6 paragraph 12.



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field studies carried out within the scope of capacity increase were carried out and reported in a more comprehensive and detailed manner.



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Table 12: Flora species identified in the EIA (Obs.: Observation – Lit: Literature Sur.: Survey)

		•			• • • • • • • • • • • • • • • • • • • •				
Falimia/Species Name	Turkish Name	Phytogeographic Region	Habitat	END.	Global IUCN Status ⁴	National IUCN status ⁵	CITES	BERN	Obs/Lit/Sur.
Apiaceae									
Eryngium creticum	Kazayağı	Eastern Mediterranean	Agricultural areas	-	NE	LC	-	-	0
Asclepiadaceae									
Cynanchum acutum subsp. acutum	Sütlü sarmaşık otu	?	Agricultural areas, roadsides	=	NE	LC	-	-	L
Asteraceae									
Anthemis auriculata	İzmir papatyası	Eastern Mediterranean	Agricultural areas	=	NE	LC	-	-	0
Anthemis austriaca	Papatya	?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Anthemis tinctoria var. tinctoria	Sarı papatya	?	Agricultural areas	-	NE	LC	-	-	L
Carduus nutans subsp. leiophyllus	Deve dikeni	?	Agricultural areas	-	NE	LC	-	-	0
Carthamus lanatus	Tüylü boyacı dikeni	?	Opening and agricultural areas	-	NE	LC	-	-	0
Centaurea cyanus	Peygamber çiçeği	?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Centaurea diffusa	и	Mediterranean	Agricultural areas, roadsides	-	NE	LC	-	-	L
Centaurea salonitana	и	Europe-Siberia	Agricultural areas, roadsides	-	NE	LC	-	-	0
Chrysanthemum segetum	Krizantem	Mediterranean	Agricultural areas, roadsides	-	NE	LC	-	-	0
Hypochoeris radicata		Europe-Siberia	roadsides	-	NE	LC	-	-	L
Leontodon tuberosus		Mediterranean	Agricultural areas	-	NE	LC	-	-	L
Scolymus maculatus	Benekli altın diken	Mediterranean	Opening and agricultural areas	-	NE	LC	-	-	0
Senecio vernalis	İmam kavuğu	?	Opening and agricultural areas	-	NE	LC	-	-	L
Tussilago farfara	Öksürük otu	?	Opening area	-	NE	LC	-	-	0
Boraginaceae						LC			_
Anchusa azurea var. azurea	Sığır dili	?	Agricultural areas	-	NE	LC	-	-	0

⁴ This assessment comes from the EIA studies conducted in 2009.

⁵ Red Data Book for Turkish Plants, (Pteridophyta and Spematophta), 2000



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Falimia/Species Name	Turkish Name	Phytogeographic Region	Habitat	END.	Global IUCN Status ⁴	National IUCN status ⁵	CITES	BERN	Obs/Lit/Sur.
Echium plantagineum	Sığır kulağı	Mediterranean	Agricultural areas	-	NE	LC	-	-	0
Brassicaceae									
Cardaria draba subsp. draba	Kedi otu	?	Agricultural areas	-	NE	LC	-	-	L
Eruca sativa	Roka	?	Agricultural areas, opening area	-	NE	LC	-	-	L
Caryophyllaceae									
Petrorhagia velutina		?	Agricultural areas	-	NE	LC	-	-	L
Cuscutaceae									
Cuscuta campestris	Küsküt	?	Agricultural areas	-	NE	LC	-	-	0
Euphorbiaceae									
Euphorbia helioscopia	Sütleğen	?	Agricultural areas	-	NE	LC	-	-	0
Euphorbia seguieriana subsp. seguieriana	"	Europe-Siberia	Agricultural areas, roadsides	-	NE	LC	-	-	0
Fabaceae									
Lathyrus cicera	Mürdümük	?	Agricultural areas	-	NE	LC	-	-	0
Melilotus alba	Ak taş yoncası	?	roadsides	-	NE	LC	-	-	0
Trifolium angustifolium var. angustifolium	Üçgül	?	Agricultural areas	-	NE	LC	-	-	L
Trifolium dubium	и	?	Edge of agricultural areas	-	NE	LC	-	-	L
Trifolium hirtum	ű	Mediterranean	roadsides	-	NE	LC	-	-	0
Lamiaceae						LC			0
Acinos rotundifolius		?	Agricultural areas	-	NE	LC	-	-	L
Thymus atticus		?	roadsides	-	NE	LC	-	-	0
Linaceae						LC			
Linum austriacum subsp. austriacum	Avusturya keteni	?	Agricultural areas roadsides	-	NE	LC	-	-	L
Malvaceae									
Malva neglecta	Ebegümeci	?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Malva sylvestris	ű	?	Agricultural areas	-	NE	LC	-	-	L
Papaveraceae						LC			
Fumaria densiflora		?	Agricultural areas	-	NE	LC	-	-	0
Fumaria officinalis	Şahtere otu	?	Agricultural areas	-	NE	LC	-	-	0
Papaver argemone subsp. argemone		?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Papaver rhoeas	Gelincik	?	Agricultural areas, roadsides	-	NE	LC	-	-	L
Poaceae						LC			



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Falimia/Species Name	Turkish Name	Phytogeographic Region	Habitat	END.	Global IUCN Status ⁴	National IUCN status ⁵	CITES	BERN	Obs/Lit/Sur.
Aegilops triuncialis subsp. triuncialis	Kılçık	?	Agricultural areas, roadsides	-	NE	LC	-	-	L
Apera spica-venti	Rüzgar otu	Europe-Siberia	Agricultural areas	-	NE	LC	-	-	0
Dactylis glomerata subsp. glomerata	Domuz ayrığı	Europe-Siberia	Agricultural areas	-	NE	LC	-	-	L
Lolium rigidum var. rigidum	Delice	?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Poa annua	Tavşan bıyığı	?	Agricultural areas	-	NE	LC	-	-	0
Vulpia ciliata subsp. ciliata		?	roadsides	-	NE	LC	-	-	0
Polygonaceae									
Polygonum convolvulus	Sarmaşık çobandeğneği	?	Agricultural areas	-	NE	LC	-	-	L
Ranunculaceae									
Adonis annua	Kan damlası	?	Agricultural areas	-	NE	LC	-	-	L
Adonis flammea	ű	?	Agricultural areas	-	NE	LC	-	-	L
Nigella damascena	Çörek otu	?	Agricultural areas roadsides	-	NE	LC	-	-	0
Rosaceae						LC			
Sanguisorba minor subsp. minor	Çayır düğmesi	?	Agricultural areas	-	NE	LC	-	-	L
Rubiaceae									
Asperula arvensis	Yapışkanotu	?	Agricultural and opening area	-	NE	LC	-	-	L
Scrophulariaceae									
Verbascum orientale	Yavşanotu	Eastern Mediterranean	Agricultural areas	-	NE	LC	-	-	L
Veronica acinifolia	ű	?	Agricultural areas	-	NE	LC	-	-	0
Veronica persica	Acem yavşanotu	?	Agricultural areas, roadsides	-	NE	LC	-	-	0
Solanaceae									
Lycium barbarum	Kurt üzümü	?	Agricultural areas	-	NE	LC	-	-	0



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Table 13: Identified flora species in Balabanlı WPP for capacity increased

Familia/Species Name	Turkish Name	IUCN	Bern (B) - Cites (C)	Endemism	Phy. Area	Density	Obs/Lit/Sur.
APIACEAE							
Eryngium campestre L. var. virens Link					ÇBFCB	Intense	Obs
Daucus guttatus Sm.					ÇBFCB	Intense	Obs
Lagoecia cuminoides L.					Akd. El.	Intense	Obs
Turgenia latifolia (L.) Hoffm.					ÇBFCB	Intense	Obs
ARACEAE							
Arum byzantinum Blume					Öksin El.	Intense	Obs
ARALIACEAE							
Hedera helix L.	Duvar sarmaşığı				ÇBFCB	Medium	Obs
ASTERACEAE							
Anthemis cotula L.	Papatya				ÇBFCB	Intense	Obs
Anthemis tinctoria L.var. tinctoria					ÇBFCB	Intense	Obs
Bellis perennis L.	Koyungözü				Avr-Sib. El.	Intense	Obs
Carlina corymbosa L.					Akd. El.	Medium	Obs
Centaurea solstitialis L. subsp. Solstitialis	Peygamber çiçeği				CBFCB	Intense	Obs
Cichorium intybus L.	Hindiba				ÇBFCB	Intense	Obs
Cirsium arvense (L.) Scop. subsp. arvense					ÇBFCB	Intense	Obs
Crupina crupinastrum (Moris) Vis.					ÇBFCB	Intense	Obs
Filago vulgaris Lam.					ÇBFCB	Intense	Obs
Leontodon tuberosus L.					Akd. El.	Intense	Obs
Scorzonera cana (C.A. Meyer) subsp. cana					ÇBFCB	Intense	Obs
Senecio vernalis Waldst et Kit	Kanaryaotu				ÇBFCB	Intense	Obs
Senecio vulgaris L.	Kanaryaotu				ÇBFCB	Intense	Obs
Taraxacum polioclerum					ÇBFCB	Intense	Obs
Dahlst.							
Tussilago farfara L.	Öksürük otu				Avr-Sib. El.	Intense	Obs
Xeranthemum annuum L.					ÇBFCB	Intense	Obs
BORAGINACEAE							
Anchusa azurea L. var. Azurea	Sığırdili				ÇBFCB	Medium	Obs
Borago officinalis L.	Hodan				Akd. El.	Intense	Obs
Buglossoides arvensis (L.) I.M.Johnst					ÇBFCB	Intense	Obs
Cerinthe minor L. subsp. auriculata (Ten.) Domac					ÇBFCB	Intense	Obs
Echium italicum L.	Engerekotu				ÇBFCB	Intense	Obs
BRASSICACEAE							
Capsella bursa-pastoris (L.) Medik.	Çoban çantası				ÇBFCB	Intense	Obs
Nasturtium officinale R. Br					ÇBFCB	Intense	Obs
Raphanus raphanistrum L.	Yabani turp				ÇBFCB	Intense	Obs
CARYOPHYLLACEAE					ÇBFCB		
Cerastium anomalum Waldst. & Kit.					ÇBFCB	Intense	Obs
Cerastium glomeratum Thuill.					CBFCB	Intense	Obs



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Familia/Species Name	Turkish Name	IUCN	Bern (B) - Cites (C)	Endemism	Phy. Area	Density	Obs/Lit/Sur.
Holosteum umbellatum L. var. tenerrimum (Boiss.) Gay					ÇBFCB	Intense	Obs
Silene vulgaris (Moench) Garcke subsp. macrocarpa	Nakıl				ÇBFCB	Intense	Obs
Stellaria media (L.) Vill subsp. media					ÇBFCB	Intense	Obs
CISTACEAE							
Cistus creticus L.	Girit ladeni				Akd. El.	Intense	Obs
Cistus salviifolius L.	Laden				ÇBFCB	Medium	Obs
CORNACEAE							
Cornus sanguinea L. subsp.	Kızılcık				Avr-Sib. El.	Less	Obs
australis (C.A.Meyer) Jav.							
CUPRESSACEAE							
Juniperus oxycedrus L. subsp. oxycedrus	Katran ardıcı				ÇBFCB	Less	Obs
DIPSACACEAE							
Scabiosa atropurpurea L. subsp. Maritima	Uyuz otu				ÇBFCB	Intense	Obs
Scabiosa columbaria L. subsp. columbaria var. columbaria	Uyuz otu				ÇBFCB	Intense	Obs
ERICACEAE							
Arbutus unedo L.	Kocayemiş				ÇBFCB	Intense	Obs
Calluna vulgaris (L.) Hull	Adi süpürge çalısı				Avr-Sib. El.	Intense	Obs
Erica arborea L.	Ağaç funda				ÇBFCB	Medium	Obs
EUPHORBIACEAE							
Euphorbia helioscopia L.	Sütleğen				ÇBFCB	Intense	Obs
FABACEAE							
Hymenocarpus circinnatus (L.) Savi					Akd. El.	Intense	Obs
Medicago orbicularis (L.) Bartal	Yonca				ÇBFCB	Intense	Obs
Onobrychis oxydonta Boiss.	Korunga				ÇBFCB	Intense	Obs
Trifolium angustifolium L. var. angustifolium	Üçgül				ÇBFCB	Intense	Obs
Trifolium campestre Scherb.	Üçgül				ÇBFCB	Intense	Obs
Vicia cracca L. subsp. stenophylla Vel.					ÇBFCB	Medium	Obs
FAGACEAE							
Quercus coccifera L.	Kermes meşesi				Akd. El.	Intense	Obs
Quercus cerris L. var. cerris	Saçlı meşe				ÇBFCB	Intense	Obs
GERANIACEAE							
Erodium acaule (L.) Becherer & Thell.	Dönbaba				ÇBFCB	Intense	Obs
Erodium ciconium (L.) L'Hérit.	Dönbaba				ÇBFCB	Intense	Obs
Erodium gruinum (L.) L'Herit.	Dönbaba				Akd. El.	Intense	Obs
Geranium rotundifolium L.	Turnagagası				ÇBFCB	Intense	Obs
HYPERICACEAE							
Hypericum perforatum L.	Binbirdelik otu				ÇBFCB	Intense	Obs
LÁMIACEAE							
Acinos rotundifolius Pers.					ÇBFCB	Intense	Obs
Clinopodium vulgare L. subsp. arundanum (Boiss.) Nyman					ÇBFCB	Intense	Obs
Lamium amplexicaule L.	Ballıbaba				Avr-Sib. El.	Intense	Obs
Lamium garganicum subsp. subsp. laevigatum Arcangeli	Ballıbaba				Öksin El.	Intense	Obs



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Familia/Species Name	Turkish Name	IUCN	Bern (B) - Cites (C)	Endemism	Phy. Area	Density	Obs/Lit/Sur.
Mentha suaveolens Ehrh.	Nane				Akd. El.	Intense	Obs
Prunella vulgaris L.					Avr-Sib. El.	Intense	Obs
Salvia viridis L.	Adaçayı				Akd. El.	Medium	Obs
Teucrium polium L.	Mayasıl otu				ÇBFCB	Intense	Obs
LILIACEAE							
Asparagus acutifolius L.	Kuşkonmaz				Akd. El.	Medium	Obs
Gagea peduncularis (J. & C. Presl)Pascher					Akd. El.	Medium	Obs
Muscari neglectum Guss.	Arap sümbülü				ÇBFCB	Medium	Obs
Ornithogalum sigmoideum	Ak yıldız				Avr-Sib. El.	Medium	Obs
Freyn & Sint.							
Ruscus aculeatus L. var.	Tavşan memesi				ÇBFCB	Medium	Obs
Aculeatus							
MALVACEAE							
Malva sylvestris L.	Ebegümeci					Intense	Obs
OLEACEAE							
Phillyrea latifolia L.	Akçakesme				Akd. El.	Less	Obs
PAPAVERACEAE							
Papaver rhoeas L.	Gelincik				ÇBFCB	Intense	Obs
POACEAE							
Aegilops neglecta Req. ex Bertol					Akd. El.	Intense	Obs
Hordeum bulbosum L.					ÇBFCB	Intense	Obs
Bromus rubens L.					ÇBFCB	Intense	Obs
Dactylis glomerata L. subsp.					Avr-Sib. El.	Intense	Obs
Glomerata							
Poa trivialis L.					ÇBFCB	Intense	Obs
Triticum durum Desf.					ÇBFCB	Intense	Obs
PRIMULACEAE							
Anagallis arvensis L. var.	Fare kulağı				ÇBFCB	Intense	Obs
Arvensis							
Primula vulgaris Huds. subsp. sibthorpii (Hoffmanns) W.W.	Çuhaçiçeği				Öksin El.	Intense	Obs
Sm.& Forrest							
RANUNCULACEAE							
Adonis annua L.	Kan damlası				Akd. El.	Intense	Obs
Anemone coronaria L.	Manisa dağ lalesi				Akd. El.	Intense	Obs
Nigella damescena L.	Yabani çörek otu				ÇBFCB	Intense	Obs
Ranunculus constantinopolitanus (DC.) d'Urv.	Düğünçiçeği				ÇBFCB	Intense	Obs
Ranunculus ficaria L. subsp.ficariiformis Rouy & Fouc	Düğün çiçeği				BFCB	Intense	Obs
Thalictrum lucidum L.					Avr-Sib. El.	Intense	Obs
ROSACEAE							
Crateagus pentagyna Waldst. & Kit. ex Willd.	Alıç				Avr-Sib. El.	Intense	Obs
Potentilla recta L.					ÇBFCB	Intense	Obs
Rosa canina L.	Kuşburnu				ÇBFCB	Medium	Obs



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Familia/Species Name	Turkish Name	IUCN	Bern (B) - Cites (C)	Endemism	Phy. Area	Density	Obs/Lit/Sur.
Rubus canescens DC. var. glabratus (Godr.) Davis & Meikle	Böğürtlen				Avr-Sib. El.	Intense	Obs
Sanguisorba minor Scop. subsp. muricata (Spach) Briq.	Çayır düğmesi				ÇBFCB	Intense	Obs
RUBIACEAE							
Galium aparine L.					ÇBFCB	Intense	Obs
SALICACEAE							
Salix alba L.	Ak söğüt				Avr-Sib. El.	Medium	Obs
SCROPHULARIACEAE							
Parentucellia latifolia (L.) Caruel subsp. latifolia					Akd. El.	Intense	Obs
Veronica persica Poir.					ÇBFCB	Intense	Obs
URTICAEACEAE							
Urtica dioica L.	Isırgan otu				Avr-Sib. El.	Medium	Obs
VIOLACEAE							
Viola odorata L.	Menekşe				ÇBFCB	Intense	Obs



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5.1.3 Site Visit Findings Under the Scope of ESDD

Field study was carried out by Dr. Şafak Bulut (approved subcontractor of WSP) on December 7-8 at the WPP Project Area at the existing turbines and at the area where extension is planned.

According to the observations made, the Project Site has a soil structure that has lost its anthropogenic and natural characteristics, there are agricultural areas and meadow areas used by the local people for agriculture and animal grazing. For this reason, it has been confirmed that there are no endemic and local endemic species in the areas where project activities are carried out within the project area and that the natural structure of all areas has deteriorated.

5.1.4 Flora Findings and Requirement for Additional Flora Surveys

The flora report carried out within the scope of capacity increase at the Balabanlı WPP Project Area was more detailed than the initial pre-installation report and more detailed information on flora species was provided in the report.

It is stated in both reports (in 2009 and 2020) that there are no endemic or local endemic species in the project area.

In the flora studies carried out within the scope of the Project, it was determined that <u>no assessment was made</u> <u>in terms of invasive plant species that could be transported by vehicles during the construction processes</u>. The operation personnel should be informed about the invasive species that can be seen in the area. The personnel should be informed about what action to take in case they see these species.

5.2 FAUNA

5.2.1 Assessment of Previous Fauna Surveys

Monitoring studies for amphibians, reptiles and mammals were carried out in 2009 within the scope of fauna monitoring studies prior to the installation of Balabanlı WPP.

According to the studies; Eastern Spadefoot (*Pelobates syriacus*), Common Toad (*Bufo bufo*), Green Toad (*Bufotes viridis*), Eurasian Marsh frog (*Pelophylax ridibundus*) are the Amphibian species likely to be found in the Project Area.

Common tortoise (*Testudo graeca*), Thracian tortoise (*Testudo hermanni*), Large green lizard (*Lacerta diplochondrodes*), Green lizard (*Lacerta viridis*), Broad-toed gecko (*Hemidactylus turcicus*), and Slender lizard (*Ablepharus kitaibeili*) are among the Reptilia species identified in the Project Area.

Lesser Shrew (*Crocidura suaveolens*), Bicolored Shrew (*Crocidura leucodon*), Hare (*Lepus europaeus*), Common pipistrellus (*Pipistrellus*) are Mammalian species likely to be found in the Project Area. According to the expert(s) who carried out the studies on fauna species, the fauna elements found in the Project Area have been evaluated within the scope of IUCN Red List of Threatened Species 2008 and international conventions (BERN, CITES) to which Türkiye is a party, and there are no species under threat of extinction.

However, among the species given above, the Common tortoise (*Testudo graeca*) is in the "VU"-Vulnerable category, the Thracian tortoise (*Testudo hermanni*) is in the "EN" endangered category globally and in the "NT"-Near Threatened category in Europe. These species were not categorized as Endangered by the expert in the report. In the studies conducted, it was stated that no endangered species were identified in the Project Area and the measures to be taken for these species were not specified. The species that can be found in the area according to the observations and literature data in the fauna studies before the installation in the Project Area are given in the following tables.



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Table 14: Amphibia species

Species Name	Turkish Name	IUCN 2008	BERN	END.	Obs/Lit/Sur
ANURA	Kuyruksuz kurbağalar				
Discoglossidae	Disk dilliler				
Bombina bombina	Kırmızılı kurbağa	LC	Ek-II	-	Lit.
Bufonidae	Kara kurbağaları				
Bufo bufo	Siğilli kurbağa	LC	Ek-III	-	Obs
Bufotes viridis	Gece kurbağası	LC	Ek-II	-	Lit.
Pelobatidae	Çamura dalanlar				
Pelobates syriacus	Toprak kurbağası	LC	Ek-II	-	Lit.
Ranidae	Su kurbağası			-	
Pelophylax ridibundus	Ova kurbağası	LC	Ek-III	-	Lit.

During the studies conducted, it was determined that 5 species of Amphibia could be seen in the Project Area. Of these species, only *Bufo bufo* "LC" was detected during the observations.

Table 15: Reptilia species

Species Name	Turkish Name	IUCN 2008	BERN	END.	Obs/Lit/Sur.
Testudo graeca	Yaygın Tosbağa	VU	Ek-II	-	0
Testudo hermanni	Trakya Tosbağası	LC	Ek-II	-	0
Ablepharus kitaibeili	İnce Kertenkele	NE	Ek-III	-	L
Eirenis modestus	Uysal Yılan	NE	Ek-III	-	L
Elaphe longissima	Eskülap Yılanı, Küpeli Yılan	NE	Ek-III	-	Г
Elaphe quatuorlineata	Sarı Yılan	NE	Ek-III	-	L
Typhlops vermicularis	Kör Yılan	NE	Ek-III	-	L
Ophisaurus apodus	Oluklu Kertenkele	NE	Ek-II	-	L
Ophisops elegans	Tarla Kertenkelesi	NE	Ek-III	-	L
Lacerta diplochondrodes	Büyük Yeşil Kertenkele	LC	Ek-II	-	0
Lacerta viridis	Yeşil Kertenkele	LC	Ek-II	-	0
Lacerta muralis	Duvar Kertenkelesi	NE	Ek-III	-	L

In the observations made, 4 species out of 12 reptile species that could be seen in and around the Project Area were identified in the observations made. Among these species, only *Testudo graeca* "VU" is an endangered species.

Table 16: Mammalia species

	-					
Species Name	Turkish Name	IUCN 2008	BERN	END.	MAK 2008-2009	Obs/Lit/Sur.
Crocidura leucodon	Sivriburunlu fare	LC	Ek-III	-	-	Lit.
Crocidura suaveolens	Sivriburunlu bahçe faresi	LC	Ek-III	-	-	Lit.
Lepus europaeus	Tavşan	LC	Ek-III	-	Ek-III	Sur.
Micromys minutus	Hasat faresi	LC	-	-	-	Lit.
Mus macedonicus	Tarla faresi	LC	-	-	-	Lit.
Pipistrellus kuhlii	Beyaz yakalı yarasa	LC	Ek-II	-	Ek-I	Lit.
Pipistrellus pipistrellus	Cüce yarasa	LC	Ek-III	-	-	Obs.
Vulpes vulpes	Kızıl Tilki	LC	-	-	Ek-III	Sur.

In the studies conducted for mammal species in the Project Area, 8 mammal species were observed. Among these species, only *Pipistrellus pipistrellus* was identified by observation. In addition, interviews with local people revealed that *Vulpes vulpes* and *Lepus europaeus* species are seen in the region.

It has been determined that studies on mammal species are inadequate, especially studies on bat species have not been carried out. Ultrasonic sound devices should be used to identify bat species during the spring, summer and fall breeding periods. Collision risk analysis reports should be prepared together with carcass reports.



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Within the scope of capacity increase, monitoring studies were carried out in and around the Project Area on February 7-8, 2020. In the field studies, the project permit area was divided into homogeneous regions (taking into account vegetation cover, habitat type, topography, etc.) and sample areas were determined to represent the entire site. Under the faunistic structure of the project area in terms of animal species, amphibians, reptiles and mammals were examined in terms of vertebrate animal groups. Birds are given in more detail under a separate heading in the report. During the field studies, the identification of the fauna; species and taxa, endemism status of the species, endangerment categories, habitats of the species, important areas for the species were determined both through previous and ongoing field studies in the vicinity of the WPP site.

During the studies carried out within the scope of capacity increase, 3 Amphibia and 6 Reptilia species were identified in and around the Project Site. No endangered species were identified among the identified Amhibia species. Among the reptile species, only *Testudo hermanni* "NT" was identified as Near Threatened (Table 17).

Table 17: Amphibia and Reptilia species

Turkish	– Species Name	Thr	eat Cate	gories	Habitat	WPP	Abundance	Obs/Lit
		IUCN	BERN	CITES		Area	Status	
Amphibia								
Küçük Semender	Lissotriton vulgaris	LC	Ek-II	-	Ç,T,M,S	+	Less	Obs/Lit
Ağaç Kurbağası	Hyla orientalis (H.arborea)	LC	Ek-II	-	Ç,T,M,S	+	Less	Obs/Lit
Gece Kurbağası	Bufotes variabilis	LC	Ek-II	-	Ç,T,M	+	Medium	Obs/Lit
Reptilia								
Trakya Tosbağası	Testudo hermanni	NT	Ek-II	X	O,Ç,T,M	+	Medium	Obs/Lit
Trakya Kertenkelesi	Podarcis tauricus	LC	Ek-II	-	K, Ç	+	Medium	Obs/Lit
İri Yeşil Kertenkele	Lacerta trilineata	LC	Ek-II	-	O, T, M	+	Less	Obs/Lit
Tarla Kertenkelesi	Ophisops elegans	-	Ek-II	-	B, T, M	+	Intensive	Obs/Lit
Hazer Yılanı	Dolichophis caspius	LC	Ek-III	-	Ç, M,T	+	Less	Obs/Lit
Çukurbaşlı Yılan	Malpolon insignitus	LC	Ek-III	-	K	+	Less	Obs/Lit

According to the studies conducted on mammal species in the project area; 23 mammal species are distributed in the WPP site and its immediate surroundings. Wild cat (*Felis sylvestris*), Jungle cat (*Felis chaus*), Jackal (*Canis aureus*), Badger (*Meles meles*), European Hare (*Lepus europaeus*), and Wild boar (*Sus scrofa*) are among the most striking mammal species around the site (Table 18). The identification of mammal species in the field and its immediate surroundings was determined by traces, feces, and direct observations in the areas where they live.

Table 18: Mammalia species

Turkish-Spe	ecies Name	IUCN	BERN	CITES	Habitat	WPP Area	Abundance Status	Obs/Lit
Balkan Kirpisi	Erinaceus roumanicus	LC	-	-	O, Ç	+	Medium	Obs/Lit
Sivri Burunlu Tarlafaresi	Crocidura leucodon	LC	Ek-III	-	O, Ç, T	+	Medium	Obs/Lit
Avrupa Köstebeği	Talpa europaea	LC	-	-	Т	+	Medium	Obs/Lit
Avrupa Yersincabı	Spermophilus citellus	VU	Ek-III		T,Ç	+	Less	Obs/Lit
Yabani Tavşan	Lepus europaeus	LC	Ek-III	-	T, Ç	+	Medium	Obs/Lit
Avrupa Sincabı	Sciurus vulgaris	LC	Ek-III	-	0	+	Less	Obs/Lit
Kısa Kuyruklu Tarla Faresi	Microtus guentheri	LC	-	-	Т	+	Intensive	Obs/Lit
Orman Faresi	Apodemus sylvaticus	LC	-	-	0	+	Medium	Obs/Lit
Kayalık Faresi	Apodemus mystacinus	LC	-	-	K	+	Medium	Obs/Lit
Ev Faresi	Mus domesticus	LC	-	-	O,T,K	+	Intensive	Obs/Lit
Ev Sıçanı	Rattus rattus	LC	-	-	O,T,K	+	Medium	Obs/Lit
Beyaz Dişli Körfare	Nannospalax leucodon	DD	-	-	Ç,T	+	Medium	Obs/Lit
Yaban Domuzu	Sus scrofa	LC	Ek-III	-	O,T, Ç	+	Less	Obs/Lit
Kaya Sansarı	Martes foina	LC	Ek-III	-	Ç,O,T	+	Less	Obs/Lit



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Turkish-Species Name		IUCN	BERN	CITES	Habitat	WPP Area	Abundance Status	Obs/Lit
Porsuk	Meles meles	LC	Ek-III	-	O, Ç	+	Less	Obs/Lit
Gelincik	Mustela nivalis	LC	Ek-III	-	O, Ç	+	Medium	Obs/Lit
Çakal	Canis aureus	LC		ı	0	+	Less	Obs/Lit
Kızıl Tilki	Vulpes vulpes	LC	Ek-III	ı	O,K	+	Medium	Obs/Lit
Saz Kedisi	Felis chaus	LC	Ek-III		O,K,T,S	+	Nadir	Obs/Lit
Yaban Kedisi	Felis silvestris	LC	Ek-III		O, K, T	+	Less	Obs/Lit
Cüce Yarasa	Pipistrellus pipistrellus	LC	Ek-III	-	O, K, T	+	Medium	Obs/Lit
Akşamcı Yarasa	Nyctalus noctula	LC	Ek-III	-	O, K, T	+	Medium	Obs/Lit
Uzunkanatlı Yarasa	Miniopterus schreibersii	NT	Ek-III	-	O, K, T	+	Less	Obs/Lit

In the reports of fauna monitoring studies carried out within the scope of capacity increase in the Project Site, the researchers used the statement "As a result of the literature research, it is known that a total of 77 mammal species are distributed in Çanakkale from the previous studies carried out in the closest distance to the investigation site". According to this statement, Çanakkale province was taken into consideration, not Tekirdağ province where the Project Area is located.

Testudo graeca species identified in the pre-installation studies of the Project Area was not included in the capacity increase studies report. There is no information on whether this species is active in and around the project site and whether it is affected by the works carried out in the Project Area.

In the pre-installation and post-installation reports, it was determined that <u>detailed field studies were not carried</u> <u>out especially on reptile and mammal species</u>, <u>and the protection measures to be taken for endangered species</u> <u>were not determined</u>. Some species identified in the pre-installation studies were not included in the reports prepared within the scope of capacity increase.

Detailed field studies should be carried out especially for endangered and potentially endangered species and their latest status should be re-evaluated.

5.2.2 Site Visit Findings under the Scope of ESDD

Field studies were carried out by Dr. Şafak Bulut (approved subcontractor of WSP) on December 7-8 at the Balabanlı WPP Extension Project. Project Area at the existing turbines and at the points where extension are planned was visited.

According to the observations made, the Project Area has a soil structure that has lost its anthropogenic and natural characteristics. There are agricultural areas and meadow areas used by the local people for agriculture and animal grazing. For this reason, it has been confirmed that there are no endemic and local endemic species in the areas where project activities are carried out within the Project Area and that the natural structure of all areas has deteriorated. Observations revealed that *Microtus* sp. species are active in the Project Area and surrounding agricultural areas. Due to unfavourable weather conditions and hibernation period, tortoise activity could not be detected.



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Figure 8: General view of the Project Area

5.2.3 Priority Biodiversity Features

Warning signs for *Testudo graeca* and *Testudo hermanni* species should be erected in and around the Project Area, especially on roads used for transportation purposes, and vehicle drivers should be informed that they should be more careful about these species. The Site speed limit must not exceed 30 km/h. This limit should be clearly communicated to all site staff, and speed limit signs should be installed wherever necessary.

If soil stripping and excavation activities are to be carried out in the areas where construction activities will be carried out within the project Area, the area should first be scanned for the reptile species mentioned in the upper paragraph. Also, *Spermophilus citellus* mobility should be checked. If a burrow or individual is detected, warning vibrations should be made, and this species should be expected to move away from the area.

Threatened bat species *Miniopterus schreibersii* which is VU in IUCN were recorded during the studies for the ESIA reports. However, it was determined that a detailed bat monitoring report was not prepared for bat species.

5.2.4 Potential Critical Habitats

It has been determined that the region is generally used as agricultural areas and has lost its natural characteristics. However, endangered and threatened species have been identified among fauna species. For this reason, it is thought that protection and monitoring studies should be carried out for these species. Additional site surveys should be conducted in order to identify species that could be present at the Project and Critical Habitat Assessment should be conducted with considering the additional site survey findings.

5.2.5 Fauna Findings and Requirement for Additional Fauna Surveys

In the studies carried out for fauna species in the Project Area before installation and within the scope of capacity increase, no assessment was made in terms of endangered and endangered species among the fauna species. Protection measures to be taken especially for *Testudo* sp. And *Spermophilus citellus* were not included in the report.

Since the observations were carried out in February within the scope of the capacity increase, the current status of reptile and mammal species, especially those in the hibernation period, may not have been determined. For this reason, it is thought that the data obtained from the observations made in the Project Area do not cover the existing fauna species of the region.

It is recommended that, the monitoring studies should be carried out again and evaluations should be made again for amphibian, reptile, and mammal species, especially in the spring-summer months when the young are active.



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5.3 BIRD and BATS

5.3.1 Assessment of Previous Ornithological Assessment Surveys

2013 Autumn Period Survey

Within the scope of the Balabanlı WPP, 16 different ornithological monitoring studies were carried out for 8 years between 2013-2020, including pre-installation ornithological monitoring studies.

The first monitoring was carried out at five different Vantage Points (VPs), including the power transmission line, during the fall migration period in 2013. According to the observations and evaluations made, it was stated that the project site is not on the main migration route.

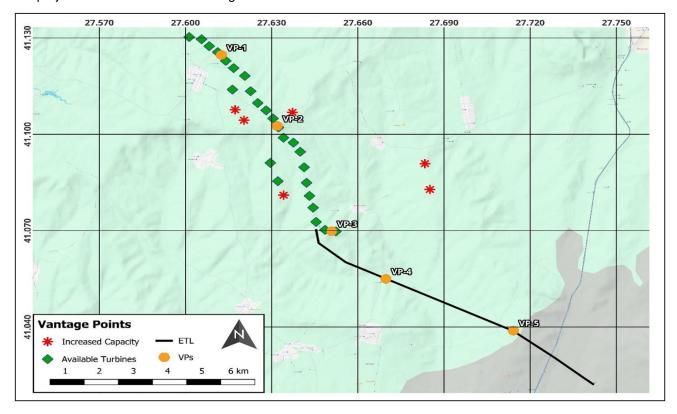


Figure 9: Vantage Points-2013 Autumn Period

In the pre-installation observations, it was stated that the first site visit was made in 2011 and three different vantage points were identified (Vp-1/Vp-3). However, in the observations made in 2013, the energy transmission line was included, and observations were made at five different points.

2013 fall migration monitoring was conducted between September 24-27 with a total of 43 hours of observations. Tables were prepared for 14 target species and 32 non-target bird species. Osprey (*Pandion haliaetus*) and Nightjar (*Caprimulgus europaeus*) were not included in the target species list. These two species are considered as target species in ornithological monitoring of WPP (Table 19).



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Table 19: Target Species Flight Activity Data - Autumn 2013 Survey

Species Name	English Name	Number of Flights	Total Birds Recorded
Falco tinnunculus	Common kestrel	24	30
Buteo buteo	Common buzzard	87	257
Aquila clanga	Greater spotted eagle	1	1
Ciconia nigra	Black stork	4	65
Falco subbuteo	Eurasian hobby	6	6
Falco vespertinus	Red-footed falcon	7	18
Aquila heliaca	Eastern imperial eagle	2	2
Pernis apivorus	European honey buzzard	11	82
Aquila pomarina	Lesser spotted eagle	4	6
Accipiter nisus	Eurasian sparrowhawk	15	17
Circus aeruginosus	Western marshharrier	44	90
Circaetus gallicus	Short-toed snake-eagle	17	31
Falco peregrinus	Peregrine falcon	4	4
Buteo rufinus	Long-legged buzzard	9	12

Table 20: Secondary Bird Species Recorded (not target species)

English Name	Species Name	English Name	Species Name
Pied wagtail	Motacilla alba	Dunlin	Calidris alpina
Syrian woodpecker	Dendrocopos syriacus	Swallow	Hirundo rustica
Bee-eater	Merops apiaster	Nothern lapwing	Vanellus vanellus
Osprey	Pandion haliaetus	Red-rumped swallow	Hirundo daurica
Little crake	Porzana parva	Red-backed shrike	Lanius collurio
Spotted flycatcher	Muscicapa striata	Sand martin	Riparia riparia
Glossy ibis	Plegadis falcinellus	Little owl	Athene noctua
Chiffchaff	Phylloscopus collybita	Little egret	Egretta garzetta
Nightjar	Caprimulgus europaeus	Little bittern	Ixobrychus minutus
Penduline tit	Remiz pendulinus	Red-breasted flycatcher	Ficedula parva
Ruff	Philomachus pugnax	Hooded crow	Corvus corone
House martin	Delichon urbica	Wood sandpiper	Tringa glareola
Grey heron	Ardea cinerea	Common coot	Fulica atra
cetti	Cettia cetti	Magpie	Pica pica
Spotted redshank	Tringa erythropus	Yellow wagtail	Motacilla flava
House sparrow	Passer domesticus	Water rail	Rallus aquaticus
Spanish sparrow	Passer hispaniolensis	Skylark	Alauda arvensis
Willow warbler	Phylloscopus trochilus	Crested lark	Galerida cristata
Common moorhen	Gallinula chloropus	Green sandpiper	Tringa ochropus

During the observations made within the WPP site in the fall of 2013, 2 individuals of Eastern imperial eagle (*Aquila heliaca*) were detected. During the observations made at the VP-2, 2 young individuals were detected. Considering the flight altitudes of the passages, it was determined that 120 seconds of the 790-second passage took place at collision risk height (CRH) or 35-135 m. In addition, one Greater spotted eagle (*Aquila clanga*) pass was detected, and 30 seconds of this pass was at CRH B (35-135 m).

According to the report, WPPs and construction activities do not have a negative impact on migratory and breeding native species and monitoring should be carried out for falcon and eagle. The report does not specify in detail the measures to be taken during and after the construction process, especially for target bird species. During the observations, Vulnerable (VU) Greater spotted eagle and Eastern imperial eagle flights were detected, and it was determined from the observation data that these flights are at CRH. Precautions and measures to be taken for these species are not specified.

It is also stated in the report that the project site is not on the main migration route. however, it should be taken into consideration that bird migration routes are not fixed and unchanging, and that these routes may change as a result of changing weather conditions and as a result of the climate change.



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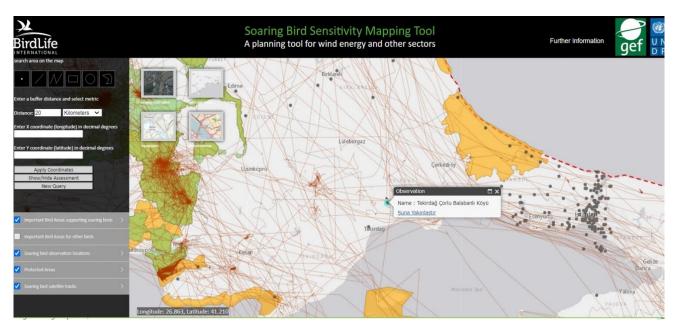


Figure 10: Balabanlı Neighbourhood and Bird Flight Routes⁶

According to the data provided by Bird Life International, Balabanlı Neighbourhood located on the borders of the Project Area was determined as an observation point and migratory bird passages were recorded from this point (Figure 10) The area where the WPP site is in a region identified as a narrow strait between the Black Sea and the Mediterranean Sea where migratory flights take place.

2014 Spring Period Survey

Within the scope of ornithological monitoring in the Balabanlı WPP, spring monitoring in 2014 was carried out between March 20 and May 8. It was stated that the spring monitoring studies were carried out from the observation points (VPs-Line) determined in the fall of 2013 (Figure 9).

Spring migration monitoring was carried out for 121.5 hours at a total of 7 different locations on five different observation points and 2 different ETLs. Of these observations, 88.5 hours were made at VP points and 33 hours on the ETL route.

During the observations, 21 target species were detected at VP points and 12 target species were detected along the ETL route (Table 21 and Table 22).

Table 21: Target Species Flight Activity Data in Balabanlı WPP- Spring 2014 Survey

English Name	Species Name	Number of Flights	Total Birds Recorded
Black Stork	Ciconia nigra	7	36
White Stork	Ciconia ciconia	14	431
Great white pelican	Pelecanus onocrotalus	1	65
Eastern Imperial Eagle	Aquila heliaca	32	33
Golden Eagle	Aquila chrysaetos	3	3
Lesser Spotted Eagle	Aquila pomarina	2	2
Booted Eagle	Hieraaetus pennatus	2	2
Short-toed Snake Eagle	Circaetus gallicus	6	7
Black Kite	Milvus migrans	1	1
Long-legged Buzzard	Buteo rufinus	10	11
Common Buzzard	Buteo buteo	28	38

⁶ https://maps.birdlife.org/MSBtool/



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English Name	Species Name	Number of Flights	Total Birds Recorded
Western Marsh Harrier	Circus aeruginosus	10	14
Montagu's Harrier	Circus pygargus	1	1
Hen Harrier	Circus cyaneus	16	17
Red footed Falcon	Falco vespertinus	1	1
Peregrine Falcon	Falco peregrinus	1	1
Merlin	Falco columbarius	1	1
Eurasian Sparrowhawk	Accipiter nisus	5	5
Common Kestrel	Falco tinnunculus	11	11
Eurasian Hobby	Falco subbuteo	1	1

Table 22: Target Species Flight Activity Data in ETL Route - Spring 2014 Survey

English Name	Species Name	Number of Flights	Total Birds Recorded
Black Stork	Ciconia nigra	1	2
White Stork	Ciconia ciconia	1	1
Eastern Imperial Eagle	Aquila heliaca	2	3
Booted Eagle	Aquila pennata	1	1
Short-toed Snake Eagle	Circaetus gallicus	5	6
Long-legged Buzzard	Buteo rufinus	10	11
European Honey Buzzard	Pernis apivorus	1	1
Common Buzzard	Buteo buteo	28	28
Western Marsh Harrier	Circus aeruginosus	4	4
Hen Harrier	Circus cyaneus	6	6
Eurasian Sparrowhawk	Accipiter nisus	4	4
Common Kestrel	Falco tinnunculus	9	10

During the observations, overflights of Eastern Imperial Eagle, Red footed Falcon (*Falco vespertinus*) and Merlin (*Falco columbarius*) were detected in VPs. These three species are endangered and under protection according to the IUCN Red List (VU). In addition, among these species, Eastern Imperial Eagle was detected during the observations on the ETL line.

During the observations, it was determined that Eastern Imperial Eagle flights were predominantly at CRH (A and B (0-35 m / 35-135 m).

Mitigation measures are briefly described in the report. It is also stated that monitoring should be continued, and post-installation collision risk analyses should be conducted.

The spring migration period takes place between March 15 and June 15. For this reason, it was determined that a total of 8 days between March 20 and May 8, when monitoring studies were carried out in the Project Area.

2014 Autumn Period Survey

Within the scope of the ornithological monitoring studies of Balabanlı WPP, the autumn monitoring studies of 2014 were carried out by the team and experts who carried out the previous monitoring studies. In the 2014 fall studies, the observation points determined in the spring studies were used. Autumn monitoring activities were carried out between August 22 and October 17 for 218 hours and 54 minutes. A total of 7,046 bird flights were detected during the observations (Table 23). Of the detected flights, 18.5% were detected at the CRH (A-0.35 m) and 27.7% at the risky B level (35-135 m). In this case, approximately 46% of the flights detected in the fall period occurred at the CRH.



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Table 23: Target Species Flight Activity Data in the Project Site - Autumn 2014 Survey

Scientific Name	English Name	Turkish Name	Birds Recorded
Ciconia nigra	Black Stork	Kara Leylek	24
Ciconia ciconia	White Stork	Leylek	6.148
Gyps fulvus	Griffon Vulture	Kızıl Akbaba	8
Aquila heliaca	Eastern Imperial Eagle	Şah Kartal	35
Aquila pomarina	Lesser Spotted Eagle	Küçük Orman Kartalı	9
Hieraaetus pennatus	Booted Eagle	Küçük Kartal	38
Circaetus gallicus	Short-toed Snake Eagle	Yılan Kartalı	103
Milvus migrans	Black Kite	Kara Çaylak	11
Pernis apivorus	European Honey Buzzard	Arı Şahini	10
Buteo rufinus	Long-legged Buzzard	Kızıl Şahin	17
Buteo buteo	Common Buzzard	Şahin	60
Buteo buteo vulpinus	Steppe Buzzard	Bozkır Şahini	159
Circus aeruginosus	Western Marsh Harrier	Saz Delicesi	4
Circus cyaneus	Northern Hen Harrier	Gökçe Delice	7
Circus macrourus	Pallid Harrier	Bozkır Delicesi	1
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	7
Accipiter brevipes	Levant Sparrowhawk	Yoz Atmaca	155
Falco tinnunculus	Common Kestrel	Kerkenez	30
Falco naumanni	Lesser Kestrel	Küçük Kerkenez	3
Falco subbuteo	Eurasian Hobby	Delice Doğan	11
Larus michahellis	Yellow Legged Gull	Gümüş Martı	91
Corvus corax	Common Raven	Kuzgun	5
Aquila spp.	Unidentified Eagle	Tanımsız Kartal	6
Buteo spp	Unidentified Buzzard	Tanımsız şahin	1

According to the evaluations made in the report, a total of 28,261 seconds of flight time of 5,919 individuals was recorded during 8 observation days in the wind farm area. In this case, it is thought that the observation period made in the WPP area is insufficient in terms of the fall migration period and considering that the fall migration mobility takes place between August 15 and November 15, it is thought that 8 days of observation is insufficient.

During the observations, 35 individuals of the Eastern Imperial Eagle, which is endangered and categorized as "VU" in the IUCN red list, were detected in a total of 22 different flights during the 5-day observation period. This indicates that the Eastern Imperial Eagle. In the observations and evaluations, it was stated that 56.13% of the 35 flights occurred at the rotor sweep height, that is, in the CRH.

In the report, collision risk analyses and calculations were made, and possible mortality risks were calculated for each species. However, this calculation was based on 8-day observation data. It is foreseen that these values may change when the entire migration period is taken into consideration. In addition, no information on any studies or findings in terms of bird carcasses was provided within the scope of the study.

During the observations, two different locations with high nesting potential for Eastern Imperial Eagle were identified and it was stated that monitoring studies should be carried out for this species during the breeding period.

2015 Spring Period Survey

Within the scope of ornithological monitoring studies within the Balabanlı WPP, spring 2015 monitoring was carried out for 13 days between March 16 and May 20. Migration monitoring studies were carried out by selecting the observation points of the studies carried out in previous years. The 2015 spring migration surveys consisted of thirteen days of surveys with one-week intervals from March 16 to May 20. A total of 178 hours and 45 minutes of VP surveys were conducted during the 2015 spring migration period, one or two days for each week.



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During the surveys, 533 flights of 16 target bird species were detected. 23 of these flights belonged to the Eastern Imperial Eagle (VU) (Table 24). It was determined that 13.56% of the flights of this species took place in the CRH.

Table 24: Target Species Flight Activity Data in the Project Site (including WPP and ETL) – Spring 2015 Survey

Scientific Name	English Name	Turkish Name	Birds Recorded
Ciconia nigra	Black Stork	Kara Leylek	11
Ciconia ciconia	White Stork	Leylek	166
Aquila heliaca	Eastern Imperial Eagle	Şah Kartal	23
Aquila pomarina	Lesser Spotted Eagle	Küçük Orman Kartalı	8
Hieraaetus pennatus	Booted Eagle	Küçük Kartal	7
Circaetus gallicus	Short-toed Snake Eagle	Yılan Kartalı	5
Pernis apivorus	European Honey Buzzard	Arı Şahini	42
Buteo rufinus	Long-legged Buzzard	Kızıl Şahin	1
Buteo buteo	Common Buzzard	Şahin	54
Circus aeruginosus	Western Marsh Harrier	Saz Delicesi	13
Circus cyaneus	Northern Hen Harrier	Gökçe Delice	5
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	4
Falco tinnunculus	Common Kestrel	Kerkenez	3
Falco naumanni	Lesser Kestrel	Küçük Kerkenez	9
Falco subbuteo	Eurasian Hobby	Delice Doğan	9
Larus michahellis	Yellow-legged Gull	Gümüşi Martı	171
Aquila spp.	Unidentified Eagle	Tanımsız Kartal	2

Within the scope of the spring ornithological monitoring studies in 2015, it was determined that observations were made for 13 days in the project area. Considering the spring migration period (March 15-June 15), it is thought that the 13-day monitoring period is not sufficient, and if the number of monitoring days is increased, the number of species and flights detected will increase.

In addition, collision risk analysis and calculations were made in the report and possible mortality rates of the target species were calculated. However, no information was provided on whether bird carcass surveys were carried out at the turbine bases.

According to the observations made in VP1 (the area between Turbines 2 and 3), the Başsuval Stream, located approximately 1 km east of the turbines in the northern part of the wind farm, and the oak groves following the Büyük Stream, located north-east of VP3 and north/north-west of Maksutlu Neighbourhood, are important as nesting, breeding and wintering areas for the Eastern Imperial Eagle. However, no information was given about any active nesting and breeding behaviour in these areas.

2015 Autumn Period Survey

Within the scope of ornithological monitoring studies within the Balabanlı WPP, observations were carried out on the turbine areas and ETL as 5 different VPs and 2 lines between August and October 2015. VP points were determined as the points determined in the studies conducted before and after the installation. Fall migration monitoring was carried out for 13 days. Considering that the migration period takes place between August 15 and November 15, this period is considered to be insufficient. During the observations, 12,017 flights of 25 target species were detected (Table 25).



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Table 25: Target Species Flight Activity Data in the Project Site (including WPP and ETL) – Autumn 2015 Survey

Scientific Name	English Name	Turkish Name	Birds Recorded
Pelecanus onocrotalus	Great White Pelican	Ak Pelikan	1
Ciconia nigra	Black Stork	Kara Leylek	25
Ciconia ciconia	White Stork	Leylek	11,502
Aquila heliaca	Eastern Imperial Eagle	Şah Kartal	12
Aquila pomarina	Lesser Spotted Eagle	Küçük Orman Kartal	19
Hieraaetus pennatus	Booted Eagle	Küçük Kartal	18
Circaetus gallicus	Short-toed Snake Eagle	Yılan Kartal	33
Milvus migrans	Black Kite	Kara Çaylak	7
Pernis apivorus	European Honey Buzzard	Arı Şahini	42
Buteo rufinus	Long-legged Buzzard	Kızıl Şahin	2
Buteo buteo	Common Buzzard	Şahin	154
Circus aeruginosus	Western Marsh Harrier	Saz Delicesi	9
Circus cyaneus	Northern Hen Harrier	Gökçe Delice	1
Circus pygargus	Montagu's Harrier	Çayır Delicesi	1
Accipiter gentilis	Northern Goshawk	Çakır	2
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	22
Accipiter brevipes	Levant Sparrowhawk	Yoz Atmaca	45
Pandion heliaetus	Osprey	Balık Kartal	1
Falco tinnunculus	Common Kestrel	Kerkenez	26
Falco naumanni	Lesser Kestrel	Küçük Kerkenez	25
Falco subbuteo	Eurasian Hobby	Delice Doğan	13
Falco peregrinus	Peregrine Falcon	Gökdoğan	1
Falco vespertinus	Red-footed Falcon	Aladoğan	4
Larus michahellis	Yellow-legged Gull	Gümüş Mart	15
-	Unidentified Raptor	Tanımsız Yırtıcı	23
-	Unidentified Gull	Tanımsız Mart	14

Among the 25 target species identified during the observations, flights of two bird species, which are endangered and categorized as "VU" in the IUCN red list, were detected. These species are Eastern Imperial Eagle and Red-footed Falcon.

During the 4-day observations along the power transmission line, a total of 352 flights of 18 target species were detected. Among these target species, flights of the endangered species Eastern Imperial Eagle and Red-footed Falcon were detected Table 26.

Table 26: Target Species Flight Activity Data in the ETL Route - Autumn 2015 Survey

Scientific Name	English Name	Turkish Name	Birds Recorded
Ciconia nigra	Black Stork	Kara Leylek	13
Ciconia ciconia	White Stork	Leylek	139
Aquila heliaca	Eastern Imperial Eagle	Şah Kartal	8
Aquila pomarina	Lesser Spotted Eagle	Küçük Orman Kartal	2
Hieraaetus pennatus	Booted Eagle	Küçük Kartal	3
Circaetus gallicus	Short-toed Snake Eagle	Yılan Kartal	17
Milvus migrans	Black Kite	Kara Çaylak	5
Pernis apivorus	European Honey Buzzard	Arı Şahini	42
Buteo buteo	Common Buzzard	Şahin	51
Circus aeruginosus	Western Marsh Harrier	Saz Delicesi	5
Circus pygargus	Montagu's Harrier	Çay r Delicesi	1
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	12



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Scientific Name	English Name	Turkish Name	Birds Recorded
Accipiter brevipes	Levant Sparrowhawk	Yaz Atmacas	18
Falco vespertinus	Red-footed Falcon	Aladoğan	2
Falco tinnunculus	Common Kestrel	Kerkenez	11
	Lesser Kestrel	Küçük Kerkenez	12
	Eurasian Hobby	Delice Do an	6
	Yellow Legged Gull	Gümüş Mart	4
	Unidentified Raptor	Tınımız Yırtıcı	1

According to the observations made in the project area, flights of the endangered Eastern Imperial Eagle and Red-footed Falcon were identified among the target species. Two of the four flights of the Red-footed Falcon and 12 flights of the Eastern Imperial Eagle were observed for a total of 1770 seconds. 5% of these observations were realized at the CRH.

It is thought that the fall period observations in the project area are insufficient for the total migration period, and that flights of more individuals of the risky species detected in 13-day observations can be seen during the migration period.

According to the observations in VP1 (the area between Turbines 2 and 3), the Başsuval Stream about 1 km east of the turbines in the northern part of the wind farm and the oak groves following the Büyük Stream northeast of VP3 and north/north-west of Maksutlu Neighbourhood are important as nesting, breeding and wintering areas for the Eastern Imperial Eagle.

2016 Spring Period Survey

Balaban wind power plant ornithological monitoring studies were carried out in the 3rd year after the installation and the 5th monitoring study was carried out between March 8 and May 16 at 5 VP and 3 Line points determined in previous observations. The observations were carried out on the turbine points and the electricity transmission line. 109 hours and 5 minutes of the observations were made at the VP points and 38 hours and 20 minutes of the observations were made on the ETL route. It was determined that the spring monitoring activities were carried out for a total of 12 days.

It was determined that carcass survey studies were carried out at the turbine bases on March 8, 17, 22, 30, April 5 and 19 and May 3, 2016.

A total of 20 target species, excluding unidentified raptor and gull species, were recorded during the VP surveys in the Balabanlı WPP area and the ETL route (Table 27).

Table 27: Target Species Flight Activity Data in the Project Site (including WPP and ETL) – Spring 2016 Survey

Scientific Name	English Name	Turkish Name	Birds Recorded		
Pelecanus onocrotalus	Great White Pelican	Ak Pelikan	18		
Ciconia nigra	Black Stork	Kara Leylek	6		
Ciconia ciconia	White Stork	Leylek	75		
Aquila heliaca	Eastern Imperial Eagle	Şah Kartal	31		
Clanga pomarina	Lesser Spotted Eagle	Küçük Orman Kartalı	8		
Hieraaetus pennatus	Booted Eagle	Küçük Kartal	1		
Circaetus gallicus	Short-toed Snake Eagle	Yılan Kartalı	3		
Milvus migrans	Black Kite	Kara Çaylak	1		
Pernis apivorus	European Honey Buzzard	Arı Şahini	1		
Buteo rufinus	Long-legged Buzzard	Kızıl Şahin	9		
Buteo buteo	Common Buzzard	Şahin	98		



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Scientific Name	English Name	Turkish Name	Birds Recorded
Circus aeruginosus	Western Marsh Harrier	Saz Delicesi	12
Circus cyaneus	Northern Hen Harrier	Gökçe Delice	8
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	2
Falco tinnunculus	Common Kestrel	Kerkenez	11
Falco subbuteo	Eurasian Hobby	Delice doğan	3
Larus michahellis	Yellow-legged Gull	Gümüş martı	191
Phalacrocorax carbo	Great Cormorant	Karabatak	1
Circus macrourus	Pallid Harrier	Bozkır delicesi	3
Grus grus	Common Crane	Turna	1
-	Unidentified Raptor	Tanımsız yırtıcı	3

During the observations, a total of 486 flights including unidentified predators were detected. Among these flights, 31 of them were Eastern Imperial Eagle. It was stated that 31 Eastern Imperial Eagle flights belonged to individuals using the nest identified on the ETL route. A total of 21,630 seconds of observations were made for this species. 6% of these observations took place within the risk area.

During the observations of the Eastern Imperial Eagle at VP5 (the area along the ETL route), the species was observed building and then using the nest. On the last day of the survey (16.05.2016), the nest, egg care and foraging pair were monitored. Since the ornithological monitoring was terminated on May 16th, no information on nest and nestling controls, hatchling emergence and development could be obtained for this species.

A total of 227 flights of 13 target species were detected during the observations along the transmission line. Among these flights, a total of 20 flights belonged to the Eastern Imperial Eagle.

In the report, collision risk analyses were made for each species separately by considering the observation data. It was reported that 1 Eurasian Lark (*Alauda arvensis*) carcass was found on March 30, 2016, and 2 bat carcasses were found on April 19, 2016. In addition, the low number of carcasses was attributed to the long intervals between carcass surveys and the possibility of carcasses being collected by ticks.

It is thought that the number of days between carcass surveys and migration monitoring is very low and the number of carcasses and flights detected during the migration period would be higher.

2016 Autumn Period Survey

Balabanlı WPP 2016 autumn migration surveys were conducted for a total of 12 days between 16 August and 12 October at 5 different VPs and 2 different Line points. Observations were carried out in the WPP area and along the ETL route. Fall migration monitoring was conducted for 53 hours in the WPP area and 34 hours and 30 minutes on the ETL route.

A total of 10,544 flights of 16 target species were detected during the observations along the VP and ETL. Among these flights, 25 flights of the Eastern Imperial Eagle (Table 28).

Table 28: Target Species Flight Activity Data in the Project Area (including WPP and ETL) – Autumn 2016 Survey

•				
Scientific Name	Common Name	Turkish Name	Birds Recorded	
Buteo buteo	Common Buzzard	Şahin	87	
Falco tinnunculus	Common Kestrel	Kerkenez	12	
Buteo rufinus	Long-legged Buzzard	Kızıl şahin	20	
Circaetus gallicus	Short-toed Snake Eagle	Yılan kartalı	23	
Ciconia ciconia	White Stork	Leylek	10243	
Ciconia nigra	Black Stork	Kara leylek	10	



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Scientific Name	Common Name	Turkish Name	Birds Recorded	
Accipiter nisus	Eurasian Sparrowhawk	Atmaca	7	
Falco naumanni	Lesser Kestrel	Küçük kerkenez	12	
Milvus migrans	Black Kite	Kara çaylak	16	
Hieraaetus pennatus	Booted Eagle	Küçük kartal	17	
Aquila heliaca	Eastern Imperial Eagle	Şah kartal	25	
Pernis apivorus	European Honey Buzzard	Arı şahini	23	
Clanga pomarina	Lesser Spotted Eagle	Küçük orman kartalı	8	
Accipiter brevipes	Levant Sparrowhawk	Yaz atmacası	11	
Accipiter gentilis	Northern Goshawk	Çakırkuşu	1	
Circus aeruginosus	Western Marsh Harrier	Saz delicesi	9	
Larus michahellis	Yellow-legged Gull	Gümüş martı	10	
-	Unidentified Raptor	Tanımsız yırtıcı	10	

According to the fall season report, 18 of the 25 Eastern Imperial Eagle flights detected belonged to individuals using the nest on the mast on the ETL route. Observations of this species lasted a total of 1965 seconds and 28.24% of this time was at the CRH.

The number of flights, nest information and risk status of the Eastern Imperial Eagle are given in the report. However, no information was provided on whether there were chicks or young individuals in the nest.

It was stated that carcasses were scanned at the turbine bases and 2 mouse carcasses were found. Necessary information on carcass survey dates, number of days and bird carcasses in ornithological monitoring studies were not provided.

It is known that the fall migration period takes place between August 15 and November 15. Autumn monitoring studies were carried out for 13 days in the project area.

2017 Spring Period Survey

Within the scope of the ornithological monitoring studies for the year 2017 at the WPP site, spring monitoring was carried out for 60 days between February 25 and June 3, between February 25 and June 3, as 5 VP and 2 line, 25 active - 7 planned, a total of 32 turbine points along the ETL line.

During the spring migration monitoring studies, 3 different flight routes that could be used for migration were identified and the flights of the species were followed on these routes (Figure 11).



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Figure 11: Migration routes in the Project Area

During the observations, a total of 958 flights belonging to 18 different species were detected. Among these flights, 6 endangered Eastern Imperial Eagle flights were detected. It was determined that the highest number of flights belonged to the Common Buzzard (*Buteo buteo*) species (Table 29).

Table 29: Table for flight routes of target species

Species	Total
Aquila chrysaetos	2
Aquilla heliaca	6
Athene noctua	2
Buteo buteo	272
Ciconia ciconia	217
Ciconia nigra	23
Circaetus gallicus	5
Circus aeruginosus	48
Circus cyaneus	6
Circus pygargus	2
Clanga pomarina	22
Corvus corax	2
Falco subbuteo	10
Falco tinnunculus	4
Hieraaetus pennatus	8
Larus cachinnans	218
Merops apiaster	96
Pelecanus onocroutelus	15
Total	958

With the data obtained as a result of the observations, collision risk calculations were made and the possible mortality risk for each species was calculated.

During the field surveys, carcasses were searched for around the turbines and the ETL. It was reported that 6 bird and 3 bat carcasses were found around the turbines. However, no carcasses were found around the ETL. Of these 6 bird carcasses, 2 belonged to crested lark (*Galerida cristata*) and 2 to European skylark. Two bird carcasses could not be identified due to the damage caused by the collision.



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Observations revealed that Eastern Imperial Eagle nests identified in previous studies. The measures and action plans to be taken for this species are detailed in the report however needs to be improved.

The most comprehensive monitoring report among the ornithological monitoring studies carried out in the wind power plant since 2014 belongs to the spring period of 2017. Since the number of observation and carcass survey days is low, there is a possibility that possible raptor carcasses may be missed and collected by scavengers.

2017 Autumn Period Survey

The 2017 ornithological monitoring of Balabanlı WPP was carried out for 87 days between August 1 and October 12. These monitoring studies have a higher number of migration period monitoring days than previous studies. The studies were carried out on 25 existing wind turbines in the area, 5 turbine areas planned within the scope of capacity increase and transmission line.

Different flight routes were determined by experts during the monitoring studies. The flights detected on these routes were noted separately for each route (Figure 12).



Figure 12: Migration routes in the project site

During the observations, it was determined that the most flights took place on route 1 and route 2. These routes belong to north-west-south-east and north-south directional flights.

Collision risk analyses were made by taking into account the flight heights and number of flights of the species identified in the observations. With these analyses and calculations, possible bird mortality was calculated separately for each species.



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Table 30: Table for flight routes of target species

Scientific name	Number of flights					T-1-1	Number of flights				Total	
	Route 0	Route 1	Route 2	Route 3	Route 4	Total	Route 0	Route 1	Route 2	Route 3	Route 4	Total
Accipiter brevipes			1	1		2			3	1		4
Accipiter gentilis	1		3			4	1		4			5
Accipiter nisus	12		7	4		23	12		9	4		25
Aquila heliaca	4		3	1		8	4		3	1		8
Buteo buteo	51		106	52	8	217	65		242	73	16	396
Buteo rufinus			2			2			2			2
Circaetus gallicus			4	9		13			4	9		13
Circus aeruginosus	3		3	2	1	9	3		3	3	1	10
Circus cyaneus	2		1			3	2		2			4
Circus macrourus	1		2			3	1		5			6
Clanga pomarina	2		16	19	3	40	2		30	26	3	61
Falco subbuteo	2		5	4	1	12	2		16	17	2	37
Falco tinnunculus	11	1	12	2		26	12	2	30	3		47
Falco vespertinus			5	1		6			28	5		33
Hieraaetus pennatus	45		1	3		49	68		1	3		72
Milvus migrans			2	2		4			4	2		6
Pandion haliaetus				1		1				1		1
Pernis apivorus			7			7			12			12
Ciconia ciconia	3	3		3	1	10	8	2276		448	150	2882
Ciconia nigra	1		2		1	4	1		2		3	6
Larus cachinnans	3			4		7	29			24		53
Total	141	4	182	108	15	450	210	2278	400	620	175	3683

A total of 4135 flights belonging to 21 different species were detected during the fall monitoring activities. During the observations, flights belonging to Red Footed Falcon and Eastern Imperial Eagle (VU).

Eastern Imperial Eagle flights detected during the monitoring studies were at an altitude of approximately 173 (30-250) m above the ground and approximately 170 m (10-350) from the turbines. It was stated that a nest of this species was detected near ETL during the studies conducted in 2015, but according to the ornithological surveys conducted in the spring of 2017, no eagle nests were found in and around the project area.

A total of 33 flights of Red Footed Falcon, an endangered species, were identified. The species was observed at an average flight height of 87m (50-150) (100-400) and a horizontal distance of 158m (50-300) from the turbines.

During the fall monitoring period, carcass surveys were conducted at the base of the turbines and along the ETL. Four bird carcasses were detected around the turbines. One carcass belonged to a Eurasian Sparrowhawk (*Accipiter nisus*), one to a Woodchat Shrike (*Lanius senator*) and one to a House Martin (*Delichon urbicum*). One bird carcass could not be identified due to damage caused by the collision.

Among the ornithological monitoring studies carried out within the scope of the wind power plant project, the most migration period monitoring was carried out with this study. The long monitoring and carcass survey periods resulted in better detection of possible carcasses. For this reason, 4 carcasses were detected in the fall of 2017 and one of them belonged to the target species.



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In order to determine the migration mobility in the monitoring studies, it was determined that monitoring and observation studies were carried out on a total of 5 VPs and 2 Lines in the turbine areas and ETL since 2014. The monitoring points mentioned in all reports are suitable and have sufficient visibility to determine migration mobility.

2018 Spring Period Survey

In order to monitor the entire Balabanlı WPP site, 3 observation stations that can see all 25 turbines installed and are also suitable for easy observation of migration were determined and thus the turbines and their surroundings were monitored between 08.00-17.00 hours for 64 days between March 3 and June 4, 2018. In these studies, a total of 85 species were recorded, 17 of which were gliding migrants.

11 species (Aquila heliaca, Clanga clanga, Clanga pomarina, Hieraaetus pennatus, hawk - Buteo buteo, Buteo rufinus, Pernis apivorus, Accipiter nisus, Accipiter brevipes, Circus aeruginosus) of the Accipitridae family in the Accipitriformes (diurnal raptors) order, harboring target species (migratory bird species), Circus cyaneus, Milvus migrans and Milvus milvus), 2 species (Falco tinnunculus and Falco naumanni) of the Falconidae (falcons) family in the order Folcaniformes and 2 species (Ciconia ciconia and Ciconia nigra) of the Ciconiidae (storks) family in the order Ciconiiformes were identified in the WPP site and its immediate vicinity. Streptopelia turtur individuals, which are in the VU category according to IUCN, were also detected.

During the spring migration monitoring period, it was determined that migrating bird species passed through Balabanlı WPP site and its surroundings using 3 routes (Figure 13).



Figure 13: Migratory routes of birds

A total of 397 individuals of 17 target bird species were recorded in and around the WPP site. The species with the highest number of individuals was *Buteo buteo* with 128 individuals. *Aquila heliaca* was observed with 74 individuals. The rarest target species were *Circus cyaneus, Milvus milvus, Accipiter brevipes* and *Falco naummanni* with 1 individual.



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During our monitoring, 303 flights of the target species were observed. *Buteo buteo*, the bird species with the highest number of flights, passed 123 times with a total of 128 individuals. *Aquila heliaca* was observed with 74 individuals in 47 passes. The rarest target species were *Circus cyaneus, Milvus milvus, Accipiter brevipes* and *Falco naummanni* with 1 passage record.

The species with the highest average flight altitude was *Ciconia ciconia* with 228 m and the lowest was *Falco tinnunculus* with 50 m. Passages of other species were between 5 and 450 m, and these heights may vary depending on weather conditions.

The Aquila heliaca nest previously observed within the Balabanlı WPP license area was found approximately 10 km away, monitored and no dead or injured Aquila heliaca individuals were found. As a result of carcass scanning studies, 1 *Emberiza calandra* and 1 *Emberiza melanocephala* were detected.

2018 Autumn Period Survey

During the fall migration period (15 August - 15 November), a total of 66 days of ornithological monitoring was carried out in 3 different VPs, one of which was on the transmission line. There is one species in the EN (Endangered) category, which are species in great danger of extinction in wildlife. Species in the VU (Vulnerable) category are species in danger of extinction in the wild. There are 3 bird species in this category. NT (Near Threatened) includes species that are not currently endangered but are candidates to be categorized as VU, EN or CR in the near future. There are 2 species in this category in and around the WPP site.

During the monitoring period of the fall migration period, it was determined that migratory bird species passing through Balabanlı WPP site and its surroundings using 4 main migration routes (Figure 14).

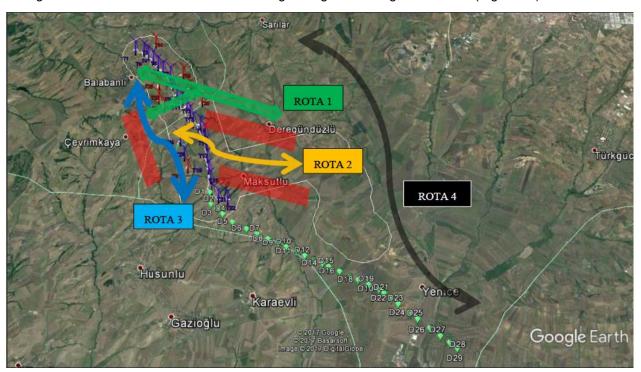


Figure 14: Fall 2018 migration routes

A total of 3967 flights of 22 target bird species were recorded in and around the WPP site. The species with the highest number of individuals was *Ciconia ciconia* with 1254 individuals. *Aquila heliaca* with 564 individuals was observed. The rarest target species is *Circus pygargus* with 1 individual.



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2019 Spring Period Survey

A total of 58 days of ornithological monitoring studies were carried out in the field during the spring migration period (March 10 - May 31). In 2018, the VP points determined were preferred again. According to the results of observation, examination and evaluation studies, 86 bird species belonging to 14 orders and 29 families were identified in the research area and its immediate vicinity. Among the target species (migratory bird species), 12 species (*Aquila heliaca, Clanga pomarina, Hieraaetus pennatus, Buteo buteo, Buteo rufinus, Pernis apivorus, Accipiter nisus, Accipiter brevipes Circaetusgallicus, Circus aeruginosus, Circus cyaneus*) from the Accipitridae family in the Accipitriformes (daytime raptors) order, *Milvus migrans*), 4 species (*Falco tinnunculus, Falco naumanni, Falco* subbuteo and *Falco vespertinus*) of the Falconidae (falcons) family in the Folcaniformes order and 2 species (Ciconia ciconia and Ciconia nigra) of the Ciconiidae (storks) family in the Ciconiiformes order were identified in the WPP site and its immediate vicinity.

There are 2 species categorized as VU in the Project site and its immediate vicinity. These are *Aquila heliaca* and *Streptopelia turtur*. *Falco vespertinus* is in the NT category. Other species are LC.

No dead or injured individuals of the target species or other species were found during the carcass surveys. During the monitoring period of the spring migration period, it was determined that migratory bird species passing through Balabanli WPP site and its surroundings using 4 main migration routes (Figure 10).

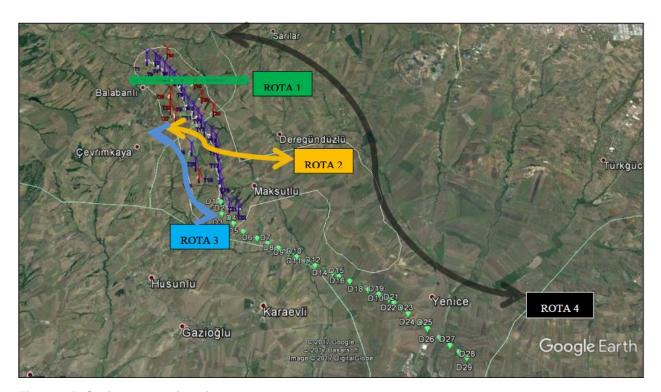


Figure 15: Spring 2019 migration routes

During the spring 2019 migration period, a total of 6052 individuals were observed in 296 passes of 18 target species. While 564 individuals were observed in 234 passes during the 2018 fall migration period, 34 individuals were observed in 19 passes during the 2019 spring migration period.



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2019 Autumn Period Survey

Between August 15 and November 15, 2019, a total of 75 days of monitoring was carried out by the WPP site project team at the observation stations and along the transect between 08.00-18.00 hours using VPs from other years. According to the results of observation, survey and evaluation studies, 88 bird species belonging to 13 orders and 30 families were identified in the research area and its immediate vicinity. A total of 18 species were recorded from daytime raptors (Accipitriformes, Falconiformes) and storks (Ciconiiformes), which are among the orders that include gliding migratory species.

During the monitoring period of the fall migration period, it was determined that migrating bird species passed through Balabanlı WPP site and its surroundings using 4 main migration routes. During the monitoring period, there was no migration in large groups from the WPP site except for the peregrine falcon.

During the fall migration period of 2019, a total of 4516 individuals were observed in 407 flights belonging to 18 target bird species, of which 3975 individuals were storks. The average flight height of these passages was 96 m (0-1500) and the average flight height to the nearest turbine was 339 m (5-3000). Among the birds detected, 3 globally endangered species were observed. Since 2017, 5 *Gyps fulvus* individuals were encountered for the first time this year during the ornithological monitoring studies carried out since 2017. As a result of carcass scanning studies; a total of 3 bird carcasses and 1 bat carcass were detected.

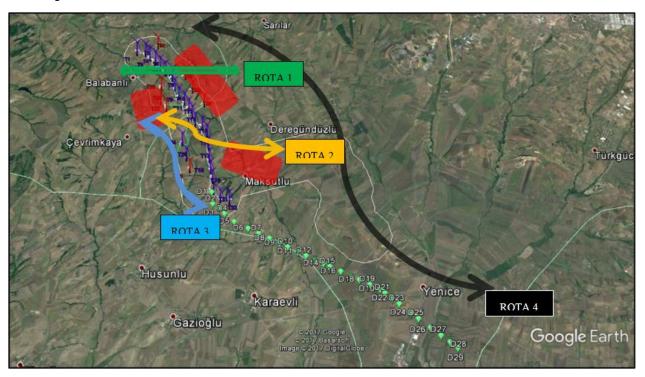


Figure 16: Autumn 2019 migration routes.

2020 Spring Period Survey

Balabanli WPP site was monitored by the project team for 55 days between March 5 and May 30, 2020 by a permanent biologist between 08.00-20.00 hours at the monitoring stations and along the line (transect). In addition, ornithological monitoring studies were carried out in and around the transmission line during the monitoring period. According to the results of the observation, survey and evaluation studies, 119 bird species belonging to 15 orders and 38 families were identified in and around the research area. Looking at the



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distribution of the species, it is seen that approximately 66% of the species recorded in the field are songbirds (Passeriformes) with a total of 79 species.

Daytime raptors (Accipitriformes, Falconiformes) and storks (Ciconiiformes), which are the orders that include gliding migratory species, totaled 18 species, which corresponds to 14% of the number of species. During the monitoring period in the spring migration period, it was determined that bird species migrating from Balabanlı WPP site and its surroundings migrate through 4 transit routes used more frequently. During the monitoring period, there was no migration from the WPP site in large groups except for the wading bird. During the spring migration period of 2020, a total of 1545 individuals were observed in 462 flights of 18 target bird species, of which 975 individuals were storks. The average flight height of these passages was 104 m (10-280) and the average flight height to the nearest turbine was 101 m (50-500). Among the birds detected, 6 globally endangered species were observed. No dead or injured bird individuals were found as a result of carcass surveys.

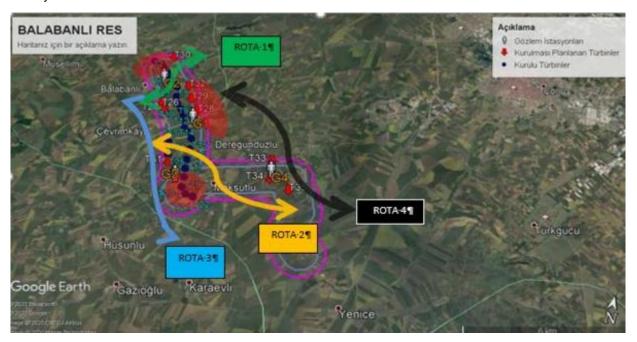


Figure 17: 2020 Spring period target birds' migration route

5.3.2 Site Visit Findings under the Scope of ESDD

Field studies were carried out by Dr. Şafak Bulut (approved subcontractor of WSP) on December 7-8 at the WPP, Project Area at the existing turbines and at the points where extension is planned.

According to the observations made, the project site has a soil structure that has lost its anthropogenic and natural characteristics, there are agricultural areas and meadow areas used by the local people for agriculture and animal grazing. For this reason, it has been confirmed that there are no endemic and local endemic species in the areas where project activities are carried out within the project area and that the natural structure of all areas has deteriorated.

5.3.3 Priority Biodiversity Features

According to ornithological monitoring reports, the mobility of endangered bird species has been identified within the project area. It has been determined by observations that the flights of these species fly at CRH. In addition, it was determined in previous monitoring studies that there was a nest near the ETL of *Aquila heliaca*, which is in the IUCN "VU" category, but it was stated that the nest was not actively used in 2017 observations.



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There is a high probability that a nest and young individuals of *Aquila heliaca* can be seen in and around the Project site. In addition, carcasses were detected in the carcass surveys, albeit at a low rate. For this reason, monitoring should be carried out in spring and fall periods outside of capacity increase studies. In addition, nest and hatchling monitoring should be carried out for *Aquila heliaca* species.

In the monitoring studies on fauna species, it was reported that individuals belonging to *Spermophilus citellus* and *Testudo graeca* species were detected within the project area. These species are endangered and need to be protected. Measures to be taken for these species are not specified in the report.

5.3.4 Ornithological Findings and Requirement for Additional Surveys

Throughout the project, annual and periodic studies were conducted from 2013 to 2020. While the reports are comprehensive, they lack detailed information on the methodology employed in the surveys. It was identified that the previous reports had a limited number of observation days, falling short of adequately covering migration periods. The Project Area was found to be situated along a migration route, with the identification of *Aquila heliaca* nests and young individuals in the region.

Additionally, bird carcasses were discovered during carcass survey studies. However, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses.

For this reason, migration monitoring studies with a permanent observer should be carried out for at least 1 year during spring and fall migration periods and evaluations should be made again.

5.4 Summary of the biodiversity findings

Below are the findings and recommendations related to biological components based on the document review and site visit:

Flora & Fauna

- The flora surveys indicated that there is no endemic specific within the Project Area. Given that flora surveys for the proposed WPP extension were conducted in January 2020, a less preferable period for flora assessment, it is advisable to undertake supplementary baseline biological surveys focusing on Potentially Biodiverse Features (PBFs) within the Project Area.
- Upon reviewing the reports derived from the fauna monitoring studies, it was noted that the essential studies and observations were conducted; however, there are some identified shortcomings. Notably, despite the presence of priority biodiversity features within amphibian and reptile categories, the mitigation and prevention studies section lack necessary information. Monitoring studies were conducted primarily during winter periods when these species are inactive, leading to difficulties in identifying individuals of certain species. It is evident that an updated set of surveys, particularly focusing on reptiles and tortoise species, is imperative, as there may be a need for translocation efforts or even maybe offset prior to construction activities.
- Given the identification of tortoise species in the project area during the prior survey, it is crucial to initiate pre-construction survey programs under the guidance of an authorized fauna expert for the Balabanlı WPP Extension Project. Site clearance procedures must be ensured before commencing any earthwork associated with the construction, thereby safeguarding identified tortoise species and adhering to environmental conservation practices.
- Comprehensive field studies are imperative to ascertain the presence and population status of priority biodiversity features, aiming to establish a well-defined, study-based dataset for these species. Specifically,

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field surveys should be undertaken to assess the presence of small mammals, including bats, as well as large mammals, reptiles, and amphibians. These detailed studies will contribute to a more thorough understanding of the ecological dynamics and conservation needs of these important species.

- To address mitigation measures, it is essential to develop and implement a Biodiversity Management Plan (BMP), with a specific emphasis on reptiles and, in particular, tortoise species. This targeted plan will ensure comprehensive and effective strategies to safeguard and manage the conservation needs of these reptilian populations.
- Additionally, there is a need for field studies to detect the presence of Critical Habitats (CHs) and the development of a detailed habitat map based on both desktop and field studies to validate the assessment. After detailed baseline studies Critical Habitat Assessment should be conducted for the Project using the findings of the additional biological field surveys.
- The Project currently lacks an invasive species assessment, and it is crucial to undertake an evaluation and develop a plan for monitoring and mitigating any residual impacts, including the potential introduction of invasive alien species.
- Due to the insufficient elements in the current site surveys for a comprehensive assessment of the Project's present situation, additional flora and fauna site surveys should be conducted. Following these surveys, an evaluation of the need for a Biodiversity Action Plan ("BAP") should be undertaken. Currently, assessing the need for a BAP is not possible, as no critical habitat assessment has been carried out at this stage. Therefore, Critical Habitat Assessment ("CHA") and Natural Habitat Assessment ("NHA") need to be performed for the Project.

Birds and Bats

- No desk study information has been provided for the Critical Habitats Assessment so this must be produced and an IBAT report procured.
- There is no survey coverage for T30 and T31 of the Balabanlı WPP Extension Project.
- Several monitoring surveys have been carried out for the existing Balabanlı Wind Power Plant. Comprehensive bird monitoring studies have taken place between 2013 and 2020, involving collaboration with both international institutions and local authorities. These extensive surveys have yielded significant ornithological data that can be utilized for further studies. However, it's important to note that some of the data extends beyond a five-year timeframe.
- Although there is a carcass survey conducted for the existing Balabanlı WPP, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses. The carcass survey should be conducted based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool" This assessment should adhere to best practices, involving the systematic search and collection of carcasses, followed by a detailed species assessment. It must be applied to the whole WPP and the ETL⁸.
- As per SNH (2017) guidelines, a comprehensive annual monthly bird survey program is mandated, closely adhering to the recommendations. It is recommended to schedule the next monthly bird monitoring studies

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⁷ https://www.ifc.org/en/insights-reports/2023/bird-bat-fatality-monitoring-onshore-wind-energy-facilities

⁸ See PCFM Good Practice Handbook for instructions to conduct PCFM at ETL projects

between March and June for Balabanlı WPP Extension Project. This extended monitoring period should align with the previously mentioned recommendations, emphasizing the need to verify vantage point coverage of the site. Following the next bird monitoring study, the results should be evaluated in accordance with SNH guidelines. Subsequently, an assessment of the necessity for extended monitoring until December, spanning a full year, should be conducted.

- It was determined that bat monitoring studies were not carried out within the scope Balabanlı WPP Extension Project. These studies should be carried out based on Rodrigues, L. (2015)⁹ in order to be considered to be EBRD PR6 / IFC PS6 guideline compliant for the purposes of international funding.
- The collision risk modelling should be updated after additional bird surveys have been conducted for the Balabanlı WPP Extension Project.
- It was also stated that there is an *Aquila heliaca* nest in the area. Therefore, these nest sites should be identified and monitored during the spring breeding period.
- Nests of the Eastern Imperial Eagle should be identified and monitored.
- A BAP should be developed and implemented and it should include the specific measures related to Eastern Imperial Eagle.
- Carcass survey should be conducted for the operation phase of the Balabanlı WPP Extension Project based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool.

6.0 SOCIAL COMPONENTS

6.1 Organizational Capacity

The Project's organizational structure has been prepared and given in Figure 18.

The Balabanlı WPP is in the operation phase. According to the information provided to WSP, the construction works for the Balabanlı WPP Extension Project are planned to commence in March 2024.

Roles and responsibilities for Balabanlı WPP operations related to Environmental Health and Safety ("EHS"), Human Resources, Corporate Social Responsibility, and Community Relations are established and presented in the organizational chart.

According to BEE Representatives, Community Liaison Officer ("CLO") and HSE staff of the current Balabanlı WPP will also cover the related tasks for the Balabanlı WPP Extension Project for both construction and operation phases. The Organisational Chart with specific names should be finalized prior to the commence of the construction activities. Roles and responsibilities of the employees should be clearly defined in their contract and also in the job description documents.

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⁹ Rodrigues, L. (2015) Guidelines for consideration of bats in wind farm projects, Revision 2014. EUROBATS. ISBN 978-92-95058-30-9 (printed version) ISBN 978-92-95058-31-6 (electronic version: <u>EUROBATS Publication Series No.6 | UNEP/EUROBATS</u>)

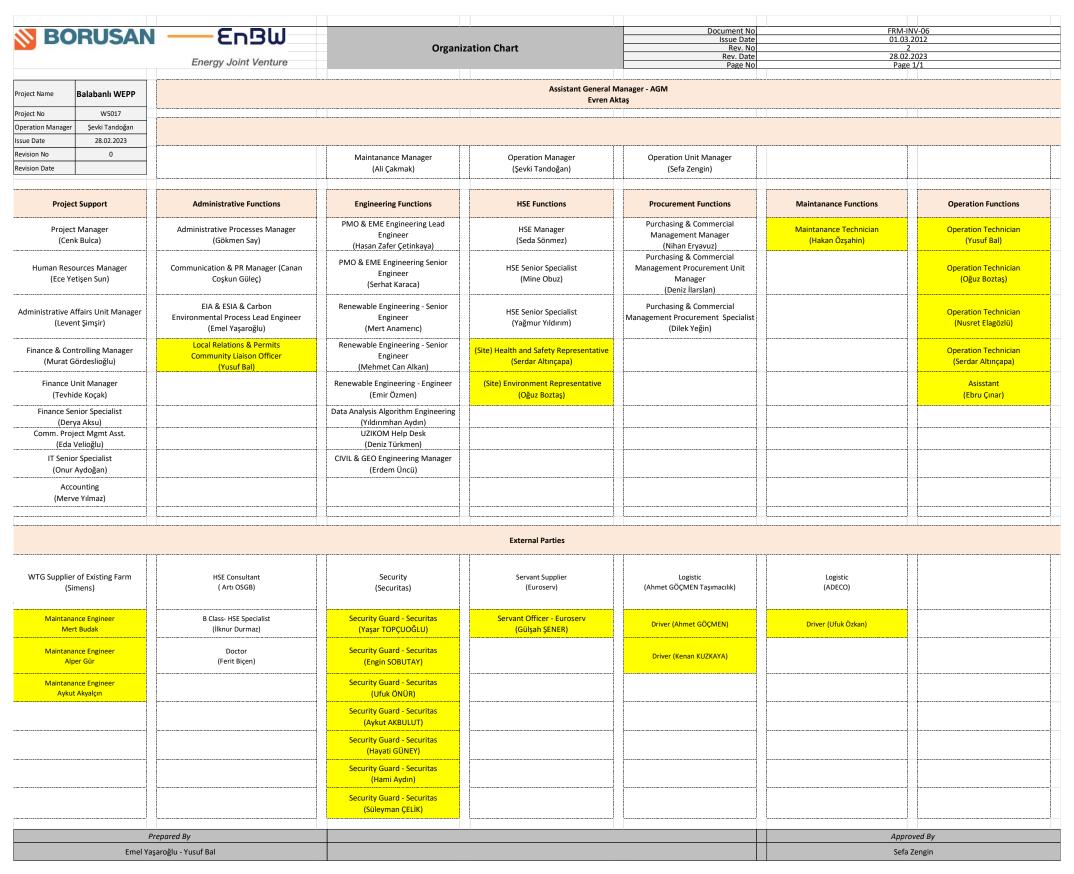


Figure 18: Organisational Chart of Balabanlı WPP



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6.2 Project Affected Settlements

Balabanlı WPP is located in the Çorlu and Muratlı districts of Tekirdağ province, Türkiye. The closest settlements to the turbine area are Balabanlı, Maksutlu, Çevrimkaya, Deregündüzlü and Yenice neighbourhoods, which are included in the social Area of Influence ("Aol"). Community Level Surveys ("CLSs") were conducted with the Mukhtars of all neighbourhoods included in the social Aol during the site visit conducted by WSP on December 7-8, 2023. The social area of influence determination map used in methodology is presented in Figure 19.

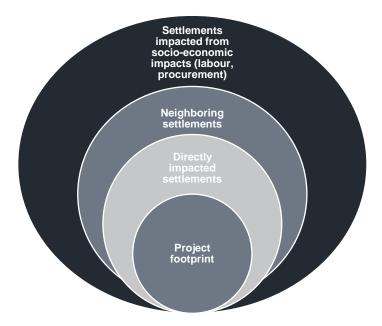


Figure 19: Social Area of Influence Map

The data presented in this section is derived from the CLSs conducted with the Mukhtars of the settlements in the social AoI during the site visit by WSP on 7-8 December 2023.

Demographic Profile

This subsection provides a detailed overview of the population statistics in the neighbourhoods of the Project social AoI. Table 31 specifically outlines the demographic data of the Project Affected Settlements. The data presented includes the total permanent population, the number of households, and any seasonal fluctuations that impact these numbers.

Table 31: Project Affected Settlements

Province	District	Neighbourhood	Total Population (Permanent)	Total Household	Seasonal Change	Total population (including temporary residents)
Tekirdağ	Muratlı	Balabanlı	400	200	Due to summer vacation	900
Tekirdağ	Muratlı	Çevrimkaya	80	40	Due to summer vacation and to engage in agricultural production	200



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Province	District	Neighbourhood	Total Population (Permanent)	Total Household	Seasonal Change	Total population (including temporary residents)
Tekirdağ	Çorlu	Maksutlu	15	5	To engage in agricultural production	70
Tekirdağ	Çorlu	Deregündüzlü	30	10	The locals residing in Çorlu in winter because the heating source is stove in the neighbourhood coming back in summer	132
Tekirdağ	Çorlu	Yenice	20	10	Due to summer vacation	150

Economy and Livelihoods

In the Çorlu and Muratlı districts of Tekirdağ, the primary sources of livelihood include agriculture, manufacturing, industry, trade, and services. Agriculture plays a significant role, particularly in the production of various crops such as wheat, sunflower, and barley. Additionally, manufacturing and industry sectors, including textiles, machinery, and food processing, contribute significantly to the local economy. The district also serves as a commercial hub, with trade and services playing a crucial role in supporting livelihoods.

Agriculture is a predominant livelihood source in the neighbourhoods, with most residents deeply involved in cultivating crops such as sunflower, wheat and barley. Hence, the primary source of income for the local communities is agricultural activities. Following this primary source, many individuals rely on retirement pensions as a secondary income source. Additionally, animal husbandry plays a significant role in generating income, serving as the third major source of livelihood in the neighbourhoods of Balabanlı and Maksutlu.

The following data in Table 32, obtained from the CLSs, presents the type and amount of agricultural products cultivated in the neighbourhoods.

Table 32: Agricultural Production in the neighbourhoods

City	District	Neighbourhood	Sunflower (ton)	Wheat (ton)	Barley (ton)	Canola (ton)	Green peas (ton)	Walnut (ton)
Tekirdağ	Muratlı	Balabanlı	Unknown	30,000	6,400	Unknown	0	0
Tekirdağ	Muratlı	Çevrimkaya	1500-2000	20,000	1,000	10	0	0
Tekirdağ	Çorlu	Maksutlu	3,000	6,000	3,000	1,000	0	0
Tekirdağ	Çorlu	Deregündüzlü	350	2,500	Unknown	Unknown	0	0
Tekirdağ	Çorlu	Yenice	5,000	150,000	30,000	1,000	200	10

The following data in Table 33, obtained from the CLSs, presents the number of livestock animals in the neighbourhoods.



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Table 33: Livestock animals in the neighbourhoods

City	District	Neighbourhood	Cattle	Sheep and goat	Beehives
Tekirdağ	Muratlı	Balabanlı	200	5000	1120
Tekirdağ	Muratlı	Çevrimkaya	0	20	2 households coming for mobile beekeeping
Tekirdağ	Çorlu	Maksutlu	70	70	200
Tekirdağ	Çorlu	Deregündüzlü	0	0	0
Tekirdağ	Çorlu	Yenice	100	300	0

Land Use

The primary income source in the neighbourhoods is agricultural production. Following agriculture, animal husbandry is another livelihood source, especially in Balabanlı and Maksutlu neighbourhoods. Hence, land use patterns predominantly revolve around agricultural production, with agricultural lands holding greater prominence in the region.

According to information gathered from BEE's Representatives, there are private parcels that will be affected from the land acquisition process due to the Balabanlı WPP Extension Project.

Infrastructure and Ecosystem Services

This section presents the status of infrastructure and ecosystem services across the neighbourhoods within the social AoI. The aim is to present a comprehensive view of the diverse conditions related to infrastructure and the provision of ecosystem services within the local communities.

Balabanlı

- The water resources in the neighbourhood are sufficient,
- The roads in the neighbourhood are adequate, and there are currently no issues,
- The electrical infrastructure is available and sufficient, experiencing no interruptions,
- Stove is used as the heating source,
- The neighbourhood has a sewage system, with no current problems,
- Waste disposal is managed by the municipality; the waste is collected twice a week,
- Mobile phone reception is very poor in the neighbourhood, and there is a lack of internet infrastructure,
- There is a health unit, and one doctor makes visits twice a month, and there is a midwife,
- The absence of a school in the neighbourhood led to out-migration when it was closed. Currently, 20 students attend school via transported education,
- The neighbourhood has a sufficient mosque and cemetery.

Maksutlu

■ The water resources in the neighbourhood are sufficient,



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- There is no sewerage system available,
- The roads in the area are adequate,
- The electrical infrastructure is available and generally sufficient, with rare interruptions,
- Stove is used as the heating source,
- The neighbourhood has a sewage system, with no current problems,
- Waste disposal is managed by the municipality; the waste is collected three times a week,
- Mobile phone reception is very poor, and there is no internet infrastructure,
- There is a health unit, and a doctor makes visits once a week,
- There is no school within the neighbourhood,
- The neighbourhood has a sufficient mosque and cemetery,
- Public transportation includes two daily services to Çorlu.

Çevrimkaya

- There is sufficient water with two wells available. However, there is no storage facility to preserve the flowing water. Hence, there is a request for a communal water reservoir in the neighbourhood to prevent wastage and enable efficient water utilisation. During interview, this request was personally conveyed to a Project representative, who assured that it would be evaluated,
- The roads are in good condition without any current issues,
- Stove is used as the heating source,
- The electrical infrastructure is available and generally reliable, with occasional interruptions,
- The neighbourhood has a sewage system with no current problems,
- Waste disposal is managed by the municipality, with waste collection occurring once a week,
- Mobile phone reception is very poor, and there is no internet infrastructure available,
- There is a health unit, and a doctor makes visits once a month,
- There is no school within the neighbourhood and 1 student attends school via transported education,
- The neighbourhood has a sufficient cemetery.
- The mosque within the neighbourhood requires roof repair.

Deregündüzlü

- The neighbourhood uses Balabanli's wells for its water supply, which is sufficient.
- The roads are in good condition without any current issues,
- Stove is used as the heating source,
- The electrical infrastructure is reliable, experiencing rare interruptions,



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- There is no sewage system available in the neighbourhood,
- Waste disposal is managed by the municipality, with waste collection occurring once a week,
- The neighbourhood experiences very poor mobile phone reception and lacks internet infrastructure.,
- There is no health unit; however, a doctor makes visits once a month,
- There is no school within the neighbourhood,
- The neighbourhood has a sufficient cemetery and mosque.

Yenice

- There is sufficient water.
- The roads are in good condition without any current issues,
- Stove is used as the heating source,
- The electrical infrastructure is available and generally reliable, with occasional interruptions,
- The sewage system is operational without any ongoing problems,
- Waste disposal is managed by the municipality; the waste is collected twice a week,
- There's adequate mobile phone reception but no available internet infrastructure,
- A health unit exists but requires restoration due to its age; one doctor makes visits once a month,
- There is no school in the neighbourhood and 3 students attend school via transported education,
- The neighbourhood has a sufficient cemetery and mosque.
- Public transportation includes two daily services provided by the municipality bus.



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Vulnerability

This section outlines the vulnerability status across the neighbourhoods within the social AoI as depicted in Table 34. It aims to provide an overview of the varying levels of vulnerability within these communities.

Table 34: Vulnerability status within the neighbourhoods

District	Settlement	Illiterate	Cannot speak Turkish	Seasonal worker	Mobile beekeeper	Refugee	Woman headed households	Depend on social aid	At education age but not involved in education		Living alone over 70 years old	People with physical disabilities	People with mental disabilities	Earthquake victims (number of household)	engaged in unauthorized agricultural activities on public lands	Persons with unauthorized structures on public lands (house, workplace, barn, hut, etc.)
Muratlı	Balabanlı	0	0	0	0	0	15	16	0	0	0	0	0	0	0	0
Muratlı	Çevrimkaya	0	0	0	2	0	5	1 (heating source aid)	0	0	0	0	0	0	There are individuals who use public lands by paying adequate compensation but the number is unknown	0
Çorlu	Maksutlu	0	0	5 (daily agricultural labourer)	6	0	0	0	0	1	0	1	0	0	0	0
Çorlu	Deregündüzlü	0	0	0	2 households	0	3	1 (financial and heating source aid)	0	0	0	2	0	0	0	0
Çorlu	Yenice	0	0	150	5	0	1	2 (financial and heating source aid)	0	0	0	1	0	0	0	0

Based on the findings from the CLSs conducted during the WSP site visit, certain vulnerable groups were identified within the neighbourhoods:

- Yenice has 150 seasonal agricultural workers.
- In Balabanlı, 15 woman-headed households and 16 households depend on social aid.
- Mobile beekeepers are present in Çevrimkaya, Maksutlu, Deregündüzlü, and Yenice.
- Individuals in Çevrimkaya who utilize public lands by paying adequate compensation.

These groups require specific attention and consideration during Project operations, stakeholder engagement activities and corporate social responsibility projects.



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6.3 Land Acquisition

6.3.1 Project Land Use

According to the Project EIA Report, the exact quantity of agricultural land within the Project area is determined during mapping and expropriation procedures. During the expropriation of agricultural lands, the characteristics of these areas will be identified per the Soil Conservation and Land Use Law No. 5403, the Pasture Law No. 4342, and the Aquatic Products Law No. 1380. Before commencing construction activities, all necessary consultations and permissions will be obtained from the Tekirdağ Provincial Directorate of Agriculture and Forestry.

According to the expropriation plan, if private properties are subject to expropriation, per Article 15/C of Law No. 4628 on the Electricity Market, the EMRA will administer the expropriation process. The expropriation decision in this regard will stand in place of a public interest decision, and the expropriated immovable properties will be registered under state ownership in the land registry. During the expropriation process, any damages will be covered by the investing company.

The expropriation processes within the Project scope will be carried out in accordance with Expropriation Law No. 2942 and IFC PS 5.

According to the information given by the BEE Representatives, there are private parcels that will be affected from the land acquisition process of the Balabanlı WPP Extension Project.

The Project will be located on agricultural lands, thus necessitating a land acquisition process. If the required area predominantly covers a significant portion of the land, the primary aim of BEE is to purchase the land through negotiation with the owners of the parcels. In cases where only a small part of the land is affected, expropriation will be pursued. After expropriation, the intention is to utilize only a portion of the expropriated land for the Project. Consequently, the remaining parts of the land will be made available for the original owners/users' use.

BEE has a corporate Land Acquisition Plan however since these plans should be specific to reflect the project specific situation, Project specific Land Acquisition Plan and Livelihood Restoration Plan should be developed for the Balabanlı WPP Extension Project in compliance with IFC PS5. Corporate Land Acquisition Plan and Livelihood Restoration Plan can be used as guideline while developing project specific plans.

Land Acquisition Plan incorporates the following mitigation measures in accordance with international requirements, to foster a more inclusive, transparent, and respectful process during land acquisition, minimise adverse impacts on affected communities, and ensure fair treatment for all stakeholders involved.

- A communication plan to inform landowners and users before land acquisition, conducting regular meetings for transparency and understanding of rights should be developed.
- A fair compensation framework considering land value and impacts, involving expert assessments for equitable compensation should be established.
- Negotiation before expropriation shall be emphasized, addressing concerns, and collaborating with authorities for fair negotiations.
- In cases where construction might impact ongoing agricultural activities, scheduling adjustments shall be considered to minimize disruption from construction. Support or compensation shall be offered for any potential loss or interruption in agricultural productivity.

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■ Implement the Community Grievance Mechanism for dispute resolution to address any grievances promptly.

According to the results of the community level surveys, there are mobile beekeepers present in Çevrimkaya, Maksutlu, Deregündüzlü, and Yenice neighbourhoods. further engagement might be required with the beekeepers considering the construction impacts of the Project. If required, compensation for any production loss should be provided based on the requirements stared in corporate Livelihood Restoration Plan.

6.3.2 Interviews with landowners and users

As of December, negotiations with landowners for land acquisition have commenced. On December 7-8, 2023, interviews regarding land acquisition and expropriation were conducted by WSP involving five individuals. The findings have been presented in Table 35.

Table 35: Interviews for land acquisition process

Neighbourhood	Land acquisition/ expropriation status	Findings from the interviews
Balabanlı	Completed/planned	The household consists of two individuals whose primary sources of income are retirement pensions and agricultural production. They cultivate barley and wheat, with harvests varying yearly; however, under optimal conditions, they produce 900 kg of barley and 100 kg of wheat. They do not engage in animal husbandry.
		The landowner maintains a continuous relationship with the Project team and have no complaints or issues.
		Completed: Between 2014 and 2017, their 13,000 m ² parcel where T7 was established was expropriated. The affected area cut through the centre of the parcel; thus, the entire land will be expropriated. The land had seven shareholders, and the compensation was distributed among them. The shareholder continues agricultural activities in the remaining areas of the parcel.
		Planned: On December 6, 2023, the Project representatives provided information about land acquisition process and conducted a negotiation meeting. Parcel (105/7), comprising 32,000 m², is being divided in half due to the Project. The landowner is the sole user and shareholder. There are not any structures on the land. They have not experienced a decrease in agricultural production due to the Project and do not anticipate any income loss. BEE will purchase the entire parcel, and an agreement has been reached.
Maksutlu	Completed/planned	The household comprises two individuals, and they reside in Çorlu. Their primary sources of income are retirement pensions and farming.
		Completed: The location where the Project building stands used to belong to this landowner, hence being one of the first parcels to undergo expropriation. Project officials stated that this was the Directorate General of National Property's handling of the expropriation. The offered price after this expropriation was deemed low by the landowners. Subsequently, an expert witness was brought in, a lawsuit was filed, and everyone received additional compensation.
		Planned: On December 5, 2023, the Project representatives provided information about the land acquisition process and conducted a negotiation meeting. Two parcels, numbered 12/17 and 22/1, are affected. The entirety of one parcel and a portion of the other are impacted. There are no structures on the lands. The landowner rents the lands to a user. Agricultural activities continue, including barley, wheat,



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Neighbourhood	Land acquisition/ expropriation status	Findings from the interviews
		sunflower, and canola cultivation. Yields vary annually, but under optimal conditions, wheat yields 700 kg, and sunflower yields 300 kg.
		BEE will purchase one of the parcels (22/1) entirely, and an agreement has been reached. Only a portion of the other parcel (12/17) will be expropriated. The landowner has other lands near this parcel. Due to the Project, road construction is planned, benefiting the tenant's access to and cultivation of these other lands.
Deregündüzlü	Completed/planned	The household consists of two individuals who live in the city during winter and in the neighbourhood during the summer. Their primary sources of income are retirement pensions and farming.
		Planned: The Project officials provided information on December 3, 2023, regarding the land acquisition process and held a negotiation meeting. One land of 8200 m² will be partially affected, with 1300 m² being impacted. There are no structures on the field. The landowner is the only shareholder and user. Agricultural production of crops such as wheat and sunflower are active. Harvests vary yearly, yielding a maximum of 500 kg of wheat under optimal conditions. They do not engage in animal husbandry. Apart from the land affected by the Project, they cultivate an additional area of 170,000 m². The affected area will be expropriated, and agricultural activity around the turbine will continue.
		The landowner's only concern is the potential loss if construction occurs before June 2024, affecting the currently planted wheat. They request a delay until the harvest period. In the event of any crop loss due to such construction, BEE will compensate for the incurred damages.
		Completed: They mentioned that the compensation received in the previous expropriation was insufficient and expressed a desire for higher compensation.
Çevrimkaya	Planned	The household consists of five individuals, with their primary sources of income being a small-scale business (neighbourhood grocery store) and agricultural production.
		At the time of the site visit, as the negotiation meetings had just commenced and were ongoing, there had not been a meeting with this land user, and the user was unaware of the land acquisition. Project officials informed that a negotiation meeting would be held, and expropriation would be pursued in the absence of an agreement.
		The land is 10,000 m², owned by the user's sister. Agricultural activities are actively conducted, including the cultivation of barley, wheat, canola, and sunflower. Under optimal conditions, barley yields 800 kg, and sunflower yields 300 kg. Apart from this parcel, they cultivate an additional area of 1,500,000 m².
Çevrimkaya	Completed	In 2018, a total of 69,000 m² of land, numbered 108/30 where T25 was established, had 11,000 m² expropriated by the Directorate General of National Property. While all payments to the landowners have been made in accordance with national law, they filed a lawsuit due to finding the compensation inadequate. The legal proceedings have been ongoing for 5 years. BEE is monitoring and actively involved in the progress of the case for resolution. Wheat and sunflowers are cultivated in the land. The parcel has three shareholders: mother, daughter, and son. The interview is conducted with the son. Their mother, who is over 65 years old, has a retired income. The interviewed shareholder works as a labourer in a factory. They share the income coming from agriculture. They do not engage in animal husbandry. Currently, they continue agricultural production in the area around the turbine.



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6.4 Stakeholder Engagement

The following standards will be applicable to the Project in terms of stakeholder engagement:

- EBRD PR-10: Information Disclosure and Stakeholder Engagement
- IFC PS-1: Assessment and Management of Environmental and Social Risks and Impacts
- EP P-5: Stakeholder Engagement
- EP P-6: Grievance Mechanism

EIA and ESIA were prepared for the Balabanlı WPP Extension Project had been disclosed to the public and available on the Project website. The documents were shared with and reviewed by WSP.

As part of the 2021 EIA Report for the Balabanlı WPP Extension Project, a Public Participation Meeting was held at Balabanlı Neighbourhood Coffee House in Balabanlı Neighbourhood, Muratlı District, Tekirdağ Province on 13.02.2020. Representatives from En-ÇEV A.Ş. (consultancy firm), officials from the MoEUCC, Tekirdağ PDoEUCC, and project managers from Balabanlı Wind Electricity Generation Inc. (investor company) attended the meeting. Brochures were distributed, representatives from En-ÇEV A.Ş. conducted a presentation to inform the public about the investment and the community's opinions and suggestions were collected. Prior to the meeting date, announcements for the meeting were published in two separate newspapers: *Posta*, a national publication, and *Avrupa Yakası*, a local publication.

The following documents and activities are in place and shared with WSP:

- Corporate Stakeholder Engagement Plan of BEE,
- Corporate Social Impact Assessment and Stakeholder Communication Procedure of BEE,
- Social Information and Communication Procedure of BEE
- Stakeholder engagement activities conducted so far within the scope of Balabanlı WPP,
- Stakeholder Engagement Programme (including stakeholder identification list, methods, frequency, and engagement topics),
- Community Grievance Mechanism Procedure and Grievance Records.

Stakeholder list, stakeholder engagement activities and site visit conducted with local communities within the scope of the Balabanlı WPP Extension Project were included in the Project ESIA and shared with WSP. The Project ESIA concluded that Balabanlı WPP has an existing SEP, and it will be applicable for the construction and operation phases of the Project.

WSP interview with the Mukhtars of the nearby settlements. As Mukhtars stated, BEE maintains regular communication with local communities as part of the Balabanlı WPP. This established communication is set to persist for the Project. The Mukhtars express contentment with the level of engagement from Project officials. Both the Mukhtars and the communities are well-informed about the Community Grievance Mechanism. They interact directly or through phone communication to address requests. BEE keeps records of all stakeholder engagement activities, grievances, and requests.

A Project-specific Stakeholder Engagement Plan in line with EBRD PR-10, IFC PS-1, EP-5, EP-6 and Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets should be prepared and should include and outline the existing documents and stakeholder



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engagement activities conducted. To ensure effective communication with stakeholders, address current concerns, and consistently disclose updated information throughout the Project, the Project-specific SEP should function as a living document.

According to EBRD Guidance Note on PR10 (2023), the SEP shall encompass several key elements such as:

- Stakeholder Identification and Analysis
- Information Disclosure
- Stakeholder Engagement Programme
- Stakeholder Engagement Strategies/Tools
- Meaningful Stakeholder Consultation
- Grievance Mechanism
- Roles and Responsibilities
- Monitoring
- Reporting

This continuous engagement serves as a vital tool in promptly identifying potential Project-specific social, environmental, and economic impacts. It allows for early mitigation measures, ensuring long-term sustainability tailored to the specific needs of the affected communities and regions.

6.5 Grievance Mechanism

IFC Good Practice Note: Addressing Grievances from Project-Affected Communities (2009) defines a grievance as "a concern or complaint raised by an individual or a group within communities affected by company operations" (p. 8). IFC and EBRD grievance mechanism principles are designed to ensure that projects and investments adhere to social and environmental standards. These principles guide the establishment and operation of grievance mechanisms for stakeholders who may have concerns or complaints related to a project.

Existing WPP

A corporate Grievance Mechanism Procedure has been established by BEE within the scope of corporate Environmental and Social Management System ("ESMS") and is implemented. This procedure is part of BEE's ESMS and has been developed in accordance with BEE policies, BEE Quality Management System (QMS), commitments undertaken in BEE's corporate ESAP, Turkish legislation, Equator Principles, EBRD Performance Requirements, IFC Performance Standards, AIIB Standards, and other applicable guidelines.

The Community Grievance Mechanism and Worker Grievance Mechanism are being implemented for the existing WPP. The Worker and Community Grievance Mechanisms, developed in line with international requirements, have been communicated to all stakeholders and Project employees and implemented starting from the construction phase of Balabanlı WPP.

Planned WPP Extension

The Community Grievance Mechanism and Worker Grievance Mechanism of the existing Balabanlı WPP in line with the corporate Community Grievance Mechanism will be implemented for the Balabanlı WPP Extension Project.



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BEE should assess the design of the existing worker grievance mechanism to ascertain its responsiveness to the needs of Gender-Based Violence and Harassment (GBVH) victims, ensuring their concerns are handled with the utmost care, confidentiality, and support.

The following actions shall be considered during the construction and operation phases of the Project:

- Regular monitoring of the performance of the Grievance Mechanism shall be conducted during the construction phase to ensure alignment with international standards and address emerging concerns effectively.
- Stakeholder feedback received through this mechanism should be systematically analysed to adapt and continuously enhance its functionality.
- Ongoing training sessions should be provided to employees and stakeholders, emphasising the mechanism's proper utilisation.
- Comprehensive documentation of grievances and their resolutions must be maintained, alongside regular reporting, ensuring transparency and accountability.
- Using this information to improve regular communication continuously will be crucial to building trust with stakeholders and ensuring ongoing accessibility throughout the Balabanlı WPP Extension Project.

6.6 Corporate Social Responsibility Projects

A corporate Social Responsibility and Community Development Plan ("SRCDP") of BEE is in place within the scope of ESMS in line with the national and international standards and shared with WSP. The SRCDP aims to establish a robust framework for community engagement and development within BEE, guiding the creation of tailored local action plans while defining roles, responsibilities, and performance criteria to prevent adverse social impacts on the community.

The list of completed and ongoing corporate social responsibility projects within the scope of the existing Balabanlı WPP is presented in Table 36.

Table 36: Corporate Social Responsibility Projects for Balabanlı WPP

Project	Target Group	Budget	Realisation/Date
Balabanlı Neighbourhood Closed Wedding Hall Building	Balabanlı Neighbourhood Local People	-	It was built and handed in to the Mukhtar in 2013.
Maksutlu Neighbourhood House Building	Maksutlu Neighbourhood Local People	-	It was built and handed in to the Mukhtar in 2013.
Çevrimkaya Neighbourhood Atatürk Statute Marble Coating	Çevrimkaya Neighbourhood Local People	5,200 TRY	Realised.
Distribution of Hats and Water Bottles for Local Farmers	Farmers of the surrounding neighbourhoods	-	Realised.
Iftar Dinner	Maksutlu Neighbourhood Local People	14,000 TRY	Realised.
Maksutlu Neighbourhood Trailer Purchase	Maksutlu Neighbourhood Local People	9,074 TRY	Realised.
Muratlı Vehicle Grant	Muratlı Local People	150,000 TRY	Realised.



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Project	Target Group	Budget	Realisation/Date
Balabanlı Neighbourhood Mukhtar Office Roof Repair	Balabanlı Neighbourhood Local People	10,000 TRY	Realised.
Balabanlı Neighbourhood Mukhtar Office Repair	Balabanlı Neighbourhood Local People	-	To be realised in 2023 / No additional information available.

The repair of the Balabanlı Neighbourhood Mukhtar Office for the local community of Balabanlı Neighbourhood is scheduled to be carried out in 2023, which requires further monitoring.

The corporate Social Responsibility and Community Development Plan should be implemented for the Balabanlı WPP Extension Project. Future corporate Social Responsibility initiatives should be closely monitored and planned to meet local preferences and needs. Any Social Responsibility Project carried out by BEE should be documented.

6.7 Community, Health, Safety and Security

BEE has a corporate ESMS which includes the following:

- Health, Safety, Environment and Energy Policy
- Community Health and Safety Management Plan
- HSE Communication Procedure
- Security Management Plan
- Traffic Management Plan
- Emergency Management Procedure
- Risk Assessment Procedure
- Emergency Response Plan ("ERP")

BEE will implement corporate ESMS documents across all its projects. Nevertheless, certain plans/procedures require project-specific updates. The documents listed below will be revised on a project-specific basis. All other documents listed above will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, with customization achieved through the use of forms and instructions included in the plans.

- Traffic Management Plan
- Risk Assessment
- Emergency Response Plan

Existing WPP

ERP and Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" of the existing Balabanlı WPP provided to WSP .

During the site visit, it was noted that several unauthorized cabins (most of which has no infrastructure such as electricity, water, wastewater etc) had been constructed in close proximity to existing turbine locations. Site



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Representatives indicated that these cabins were built after the Balabanlı WPP commenced operations (approximately in the last 3 years) and are used seasonally, particularly during the summer months on the weekends. It is highly probable that those cabins are used to store the agricultural equipment. These cabins are not close extension turbine locations.

No interviews were conducted with the residents or landowners of these unauthorized cabins since they were not present during the site visit. In a meeting with the Mukhtar of Balabanlı, it was mentioned that the owners of these buildings were not local residents but rather individuals from outside the region. Given that the cabins are situated in an area designated as agricultural land, their construction is not permitted and is considered illegal. The Mukhtar also stated that he made a complaint to Muratlı Municipality and got informed that these illegal cabins will be demolished.

Related to unauthorized cabins close to the existing turbine locations:

Specific health and safety assessments, such as Shadow Flicker and Blade/Ice Throw Assessment, shall be conducted to consider these cabins for current Balabanlı WPP Project.

BEE should engage with residents / landowners of the unauthorized cabins to provide information about potential impacts (e.g. noise, shadow flicker, ice/blade throw), which involves communicating details regarding potential risks and their probable effects.

BEE should engage in discussions with the Muratlı Municipality regarding the unauthorized cabins in the area. The Muratlı Municipality holds the responsibility for demolishing these cabins. BEE should provide a detailed explanation of the risks to the Municipality to prompt necessary action. This situation poses risks for both the residents of the unauthorized cabins and BEE. The Mukhtar mentioned that there have been fires in these unauthorized cabins before, which were fortunately contained. However, there is a potential risk that future fires may not be easily controlled, posing a threat to BEE operations. It is crucial to address this issue promptly and collaboratively to mitigate potential -impacts.

If the municipality fails to promptly remove these cabins, and if the owners do not voluntarily vacate the area upon being informed of the risks, BEE should monitor the impacts on these sites and consistently provide updated information to ensure awareness and encourage necessary actions.

- Noise impact will be monitored through monthly measurements during the summer period throughout the first year of operation.
- Ice throw risk will be monitored by reviewing SCADA results, analysing meteorological data recorded at the Balabanlı WPP, and conducting visual observations during the period between December and March.
- Engagement with them will occur concerning their experience with shadow-flicker throughout the first year of operation. They will also be informed about the Project Grievance Mechanism, allowing them to convey any grievances related to shadow-flicker impacts.

BEE should actively engage residents and landowners in the social impact assessment process as part of the ESIA for the Balabanlı WPP. This involvement is crucial to gather the opinions of the local community and landowners, and to gain insights into the reasons behind the construction of unauthorized cabins in the area, particularly after the turbine construction. This collaborative approach ensures a comprehensive understanding of the social impact and allows for the incorporation of community perspectives into the assessment process.



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Planned WPP Extension

At this early stage of the Project where no onsite activities have been undertaken, there is currently no ERP or Risk Assessment prepared. ERP and Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project. Community health and safety concerns should be addressed in the ERP and risks related to community health and safety should be documented in the risk assessment.

Security teams of the existing Balabanlı WPP will also work for Balabanlı WPP Extension Project.

Although corporate Security Management Plan will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, Project specific "Security Plan" identifying the number of security personnel, working shifts, areas of responsibility will be asked from security firm to be contracted

According to the EIA Report, there will be no blasting activities conducted for the Project.

6.8 Labour and Working Conditions

EBRD Performance Requirement 2: Labour and working conditions and IFC performance Standard 2: Labour and working conditions be binding for the Project's activities and implementation regarding labour and working conditions.

The existing Human Resources Policy of BEE in line with the requirements of the national Labour Law and respective regulations, fundamental principles of the International Labour Organization (ILO) conventions ratified by Turkey on labour and working conditions is in place at the corporate level and shared on the BEE's website.

The corporate ESMS of BEE includes a Labour Management Plan. This plan aims to uphold ethical, fair, and sustainable labour practices within BEE operations, ensuring consistent implementation across all projects. The main principles, in line with EBRD (Guidance Note on Human Resource Policies and Employee Documentation, 2023) guidelines, comprise:

- Ensuring fair employment practices and fostering positive working relationships.
- Upholding non-discrimination and providing equal opportunities for all.
- Respecting labour rights and actively eliminating child labour and forced labour.
- Prioritising occupational health and safety standards.
- Respecting the rights of freedom of association and workers' organisations.
- Ensuring fair wages, benefits, and favourable working conditions.
- Implementing a comprehensive Grievance Mechanism.
- Providing suitable worker accommodation.
- Managing collective dismissal processes effectively.

Existing WPP

The documents on employee numbers, roles and responsibilities, training records, the Annual Work/Shift Schedule 2023, and representative appointment letters for Balabanlı WPP have been provided to WSP. The employees working for the Balabanlı WPP operation phase include:



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- 7 employees from BEE
- 7 employees from Securitas (working in shifts, with 2 security personnel consistently present at the Project site)
- 3 employees from Siemens
- 1 employee from Euroserve
- 3 employees for Transportation Service

Based on the insights gathered from interviews with 1 BEE employee and 4 Subcontractor employees during the WSP site visit:

- Employees have been thoroughly briefed on the HR policy, which is accessible at the Project site and online. Additionally, all employees can access Project Environmental and Social (E&S) documents. Each worker holds a detailed contract encompassing job descriptions, wages, and overtime pay information.
- The Worker Grievance Mechanism has been communicated to all employees, and grievance forms and boxes are available on the Project site. Moreover, an online BEE platform exists for raising grievances, accessible to employees. Grievances are monitored monthly and quarterly.
- Employees have not raised any grievances in the past. When they have specific requests, they communicate them directly with the Project officials and the appointed workers' representative.
- In this setting, there is no labour union or unionisation present. However, a workers' representative for Balabanlı WPP is appointed to address workers' concerns and act as a liaison between the employees and the project management.
- Employees reside in their own houses in the Çorlu district. The company provides internet, transportation, and meal support.
- BEE employees benefit from flexible additional benefits exclusive to BEE staff, such as annual vouchers for needs such as fuel, grocery shopping and meals. These benefits are not valid for subcontractor employees. Provision of the same social benefits for BEE employees and subcontractor employees in this regard has been discussed with BEE officials. It is confirmed that according to the worker contracts, subcontractor employees are provided with equal benefits, such as food and transportation services. Social benefits like private health insurance, seniority awards, and flexible fringe benefits are managed by the subcontractors for subcontractor employees. In this case, similar to BEE personnel, private health insurance has been provided for subcontractor employees. Yet, since this process involves significant procurement overseen by the subcontractor company, which manages seniority awards and flexible fringe benefits for subcontractor employees, it is stated that BEE does not hold any influence in this regard.
- Salaries are paid on time. Overtime is rare and requires consent, with appropriate compensation. Salaries are considered average or slightly above.
- Employees have received training on various topics, including OHS, ethical standards, traffic rules, emergency action plans, air quality, stakeholder engagement, hazardous waste, and waste and noise management. They do not recall training on biodiversity and cultural heritage, which might not have been deemed necessary for their roles. Training is tailored to employees' occupations; for example, service officers receive specialised training on detergent use. BEE conducts training through an online platform called Borusan Academy.



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There are no workers under 18 years old or migrant workers. BEE conducts subcontractor selection through documentation checks to ensure compliance.

- Employees find the health and safety warning signs adequate. According to the workers' representative, renovations are ongoing, with a significant overhaul of signs planned for 2024.
- According to the workers' representative, BEE encourages its staff to contribute to the environment. The company allocates a particular budget and strives for community development.
- Also, a subcontractor employee has expressed interest in transitioning to a position within BEE.

Planned WPP Extension

According to 2021 EIA Report of the Project, the construction phase for the planned 10 wind turbines is anticipated to involve 40 workers, while approximately 10 individuals are planned to be employed during the operation phase. It is planned to recruit personnel from nearby settlements.

Project EIA indicates that as part of the Project's construction activities, it is not planned to be a designated campsite for workers' accommodation. The needs of the workforce, including facilities such as restrooms and changing rooms, will be accommodated within the administrative building on the Project site. Potable water for the staff will be sourced from commercially available, authorized bottled water and dispensers. Additionally, a 10-ton water tank within the administrative building will be allocated to meet the usage water requirements. In case of a need for workers' accommodations, the requirements in Workers' Accommodation: Processes and Standards, IFC and EBRD, Guidance Note, 2009 should be followed.

The existing HR Policy and corporate Labour Management Plan should be implemented for the Project. Procedures should be included in the labour management plan to address specific areas requiring clarification, such a working hours, worker's rights, wage policy, collective bargaining, responsibilities about the human resources processes, etc.

The human resources processes, working conditions and terms of employment should be communicated to all employees.

According to the IFC Environmental Health and Safety Guidelines for Wind Energy, the primary Occupational Health and Safety (OHS) hazards for the construction of Wind Power Projects (WPPs) are working at height, lifting operations, and working in remote locations. Local regulations and Project-specific risk assessments are essential for addressing site-specific hazards and ensuring the safety of workers and the environment.

There is an Occupational Health and Safety Management Systems in line with ISO standards prepared for BEE. Since there are no employees and site operations at this stage, no work has been carried out or required within the scope of OHS. Consequently, there are no Project-specific documents or records pertaining to OHS available to be shared with WSP. Starting from the construction phase of the Project, a Project-specific Occupational Health and Safety Management Plan shall be prepared in line with EBRD PR-2 requirements and implemented throughout Project activities. The plan shall comprise the following:

- Identification of potential hazards to workers, with a particular focus on those that could be life-threatening.
- Provision of preventive and protective measures, including the modification, substitution, or elimination of hazardous conditions or substances.
- Comprehensive training for workers to ensure they are aware of and equipped to manage workplace hazards.



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 Documentation and reporting procedures for occupational accidents, diseases, and incidents to maintain records and improve safety.

 Development of emergency prevention, preparedness, and response arrangements to address unforeseen situations effectively.

These principles align with EBRD PR-2 should be followed by BEE in developing a robust Occupational Health and Safety Management Plan to protect the well-being of employees and maintain a safe working environment.

6.9 Non-Employee Workers and Supply Chain

BEE has a corporate ESMS which includes the following:

- Supply Chain and Procurement Policy
- Human Resource Policy
- Supply Chain Management Plan
- Supplier Audits Procedure
- Contractor Audits Procedure
- Contractor Management Plan
- Supplier Code of Conduct

The Corporate HR Policy of BEE expresses compliance with eliminating the risk of child labour and forced labour being used in the operations of Project including primary suppliers, and establishing an internal grievance mechanism that is available to and known by all employees including Project's contracted workers.

Existing WPP

The external parties associated with Balabanlı WPP as outlined in the organizational chart are as follows:

- Security: 7 employees from Securitas (working in shifts, with 2 security personnel consistently present at the Project site)
- WTG Supplier of Existing Farm: 3 employees from Siemens
- Servant Supplier: 1 employee from Euroserve
- Logistic: 2 employees from Ahmet Göçmen Taşımacılık and 1 employee from Adecco
- HSE Consultant: 1 HSE Specialist and 1 Doctor

The corporate HR Policy of BEE expresses compliance with eliminating the risk of child labour and forced labour being used in the operations of Project including primary suppliers, and establishing an internal grievance mechanism that is available to and known by all employees including Project's contracted workers.

Planned WPP Extension

Since the construction phase of the Project has not been started yet, there is no non-employee workers for the Project. Thus, no data has been collected regarding non-employee workers and the supply chain of the Project.

To align with EBRD PR2 on Supply Chain requirements throughout both the construction and operational phases of the Project, it is recommended to implement the above listed plans and procedures for the



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existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

The principles for a Contractor Management Plan and a Supply Chain Management Plan should include:

- Compliance: Both plans should ensure compliance with all relevant laws, regulations, and industry standards.
- Risk Management: The plans should address risk identification, assessment, and mitigation strategies for contractors and the supply chain.
- **Transparency:** Transparency in the selection and management of contractors and suppliers should be ensured through the plans.
- **Ethical Conduct:** Ethical business practices, including fair labour practices and responsible sourcing in the supply chain should be promoted in the plans.
- Safety and Health: The plans should prioritize safety and health in both contractor and supply chain operations.
- Continuous Improvement: The plans should continuously assess and improve the management of contractors and the supply chain to adapt to changing circumstances and standards.

Also, EP4 (Environmental and Social Management System and Social Action Plan) must be systematically applied throughout the Project's lifecycle to effectively identify, mitigate, and eliminate any potential human rights risks stemming from the Project's operations. This commitment ensures the proactive assessment of all activities and interactions related to the Project, including affected communities and workers involved in the supply chain, to safeguard their rights.

According to BEE's Representatives the turbines to be used for the Project will be supplied from the Nordex Group. Consequently, there are no plans for any purchases from China within the supply chain. Furthermore, as part of the agreement signed with the Nordex Group, a commitment to full compliance with the BEE ESMS has been secured

6.10 Human Rights and Gender Issues

As stated in the corporate Labour Management Plan and Equal Opportunities Plan of BEE, employment decisions will not be made on the basis of personal characteristics (such as gender, race, nationality, ethnic, social, religion or belief, disability, age, or sexual orientation).

Although Social Policy and HR Policy of BEE have been developed and will be implemented for the Project, it is necessary to formulate and implement a Human Rights Policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles. This Human Rights Policy is essential to integrate the human rights standards specified in the Equator Principles into Project operations, promoting responsible and ethical Project development.

The following items shall be included in the Human Rights Policy regarding the implementation of human rights requirements under the Equator Principles:

- Respect for human rights aligned with international standards,
- Expectations for commitment to human rights from contractors, suppliers, and partners,
- Non-discrimination based on various factors.



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- Promotion of diversity and empowerment of women,
- Respect for local communities' rights and consultation,
- Principle of informed consent on private lands,
- Zero tolerance for child labour, forced labour, and modern slavery,
- Adherence to human rights principles when working with security forces,
- Establishment of confidential grievance mechanisms,
- Design of grievance mechanism to be sensitive to the needs of Gender-Based Violence and Harassment (GBVH) victims, ensuring their concerns are handled with the utmost care, confidentiality, and support,
- Regular review and evaluation of changing human rights conditions,
- Take decisive action, including contract termination, for non-compliance with the Human Rights Policy.

Such Human Rights Policy helps embed human rights requirements outlined in the Equator Principles into Project operations, promoting responsible and ethical Project development.

6.11 Cultural Heritage

The 2013 ESIA conducted for the Balabanlı WPP identified impacts on cultural heritage as negligible, incorporating measures in the ESMP to preserve archaeological remains during the construction phase.

Similarly, the 2017 ESIA for the Balabanlı WPP Extension Project determined residual impacts to be negligible post-mitigation. It outlined the implementation of a Chance Find Procedure in case of encountering archaeological or historical assets, wherein work will cease, and the Tekirdağ Provincial Directorate of Culture and Tourism, along with the Provincial Directorate of Museum, will be duly notified.

The Project will adhere to Turkish legal requirements concerning the handling of any chance finds that may occur during Project activities. All finds shall be managed in accordance with national legislation and international requirements. The requirements are as follows:

- Law on Conservation of Cultural and Natural Assets No. 2863.
- EBRD PR 8: Cultural Heritage (Guidance Note-8, Cultural Heritage)
- IFC PS 8: Cultural Heritage

A corporate Cultural Heritage Management Plan (CHMP), including the Chance Finds Procedure, was developed and is being implemented by BEE. The CHMP aims to prevent and minimize any adverse effects on cultural heritage sites within the Project Area. This plan outlines efficient approaches for identifying, documenting, and protecting cultural heritage sites that might be encountered during the construction and operation phases of the Project. Within this regard, considering that BEE has established a corporate CHMP, it is recommended that the corporate CHMP implemented for the Balabanlı WPP Extension Project.

7.0 OCCUPATIONAL HEALTH AND SAFETY

7.1 Subcontractor Management

The organisation chart of the existing Balabanlı WPP which includes the main subcontractors is presented in the figure below and details related to subcontractors are given in the table below.



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Figure 20: Organization Chart Including Main Subcontractors

Table 37: Main Subcontractors

Subcontractor	Serving Area
Siemens	Wind Turbine Generator Supplier, Maintenance
Securitas	Security
Adecco	Logistic
Artı OSGB	OHS Consultant
Euroserve	Servant Supplier
Ahmet Göçmen	Transportation (Personnel Service)

BEE has a corporate Contractor Management Plan prepared as part of the corporate ESMS. According to the Plan, BEE requires and verifies all documents mandated by legislation, such as OHS documents (e.g., trainings, risk assessments) and administrative documents (e.g., social security registry of the employees), from subcontractors before commencing work.

The OHS Representative appointed by BEE is responsible for collecting all necessary OHS documentation from BEE's subcontractors.

The following sections will delve into specific OHS subjects and requirements for both BEE and its primary subcontractors.

7.2 Occupational Health and Safety Services

According to Occupational Health and Safety Law - No: 6331 (Official Gazette Number 28339, Date: 30.06.2012), the operational activities of the Balabanlı WPP are classified as "very hazardous." An agreement exists between Balabanlı Enerji and Artı Joint Health and Safety Unit (JHSU) for OHS services. One B class occupational safety specialist and one workplace physician are appointed for the Balabanlı WPP.

In the Balabanlı WPP, an OHS Representative appointed by BEE manages day-to-day OHS-related issues, including providing training, tracking documentation, conducting drills, etc.

The 2022 Annual Assessment Report, prepared by Balabanlı Enerji in accordance with Law No. 6331, was provided to WSP. The report includes risk assessments, measurements, analyses, trainings, drills, and controls conducted in 2022 for the Balabanlı WPP. 2023 Annual Assessment report will be ready on February 2024.



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The OHS Annual Work Plan for 2023, prepared by Balabanlı Enerji, was also provided to WSP. The plan identifies H&S activities (e.g., H&S Committee Meetings, training activities, monitoring activities, and testing and measurements of equipment, etc.) and relevant monitoring periods (i.e., months) for each activity.

Balabanlı Enerji provides a worker health surveillance program for its workers periodically and at the start of the employment period. Sample records were provided to WSP.

7.3 Risk Assessment

A Risk Assessment Report, dated April 12, 2016, was prepared for the existing Balabanlı WPP operation. It was updated on March 28, 2023, and is valid until March 28, 2024. The methodology used for the risk assessment is the Fine Kinney Method. The cover page and each page of the report include the signatures of the risk assessment team, consisting of the employer's representative, workplace physician, occupational safety specialist, worker's representatives, and 4 support personnel.

Also, BEE has a corporate Occupational Health and Safety Risk Assessment Procedure and several work instructions regarding the OHS issues such as fire extinguisher maintenance and operating instruction, occupational safety equipment control instruction, working at height instruction and operation travel process instruction.

Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project. Risks related to community health and safety should be documented in the risk assessment.

At this early stage of the Balabanli WPP Extension Project where no onsite activities have been undertaken, there is currently no Project specific Risk Assessment. Risk Assessment. in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Balabanli WPP Extension Project. According to the IFC Environmental Health and Safety Guidelines for Wind Energy, the primary OHS hazards for the construction of WPPs are working at height, lifting operations, and working in remote locations. Project-specific risk assessment is essential for addressing site-specific hazards and ensuring the safety of workers and the environment.

7.4 Emergency Response

BEE has a corporate Emergency Management Plan to perform works aimed at preventing the occurrence of any emergency or undesired event. The plan aims to reduce the damage or loss that the environment, human, and material may incur in case of an emergency or to ensure recovery without incurring damages. This is within the framework of the established management systems and the Health & Safety and Environmental Policy. The plan describes the procedure for determining the methods on how to control emergency situations.

A copy of the official ERP for the Balabanlı WPP, prepared in compliance with the OHS Law 6331 and dated July 2023, has been provided to WSP. The plan encompasses preparedness and actions for various emergency situations, including incidents and accidents requiring first aid and evacuation, fire, earthquake, adverse weather conditions, sabotage/attack, poisoning, turbine emergencies, environmental accidents, and health incidents, in accordance with the Regulation on Emergency Situations at Workplaces (Official Gazette No. 28681, Date: 18.6.2013). The up-to-date emergency response teams, which include first-aid, firefighting, evacuation and communication, and rescue teams, are outlined in the plan. Additionally, these teams were observed to be displayed in the office areas during the site visit.

According to the OHS Representative, emergency drills for various situations are regularly conducted in the Balabanlı WPP. In 2023, the following drills were performed, and the drill reports were provided to WSP:



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- Fire drill on April 26, 2023
- Emergency, evacuation, and fire response drill on May 17, 2023
- Poisoning drill on May 25, 2023
- Turbine emergency drill on June 23, 2023
- Road-closure drill on June 27, 2023
- Earthquake drill on June 28, 2023
- Environmental accident drill on September 27, 2023
- Terror attack & sabotage drill on November 27, 2023

A Project-specific Emergency Response Plan should be developed for the construction and operation phases of the Project, as per the OHS Law 6331. The ERP should include at least the followings: emergency scenarios, emergency contact numbers, site plans of muster points, location of emergency equipment, emergency response teams etc.

At this early stage of the Balabanli WPP Extension Project where no onsite activities have been undertaken, there is currently no Project specific "ERP prepared. ERP in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Balabanli WPP Extension Project. The ERP should include at least the followings: emergency scenarios, emergency contact numbers, site plans of muster points, location of emergency equipment, emergency response teams etc. According to the IFC Environmental Health and Safety Guidelines for Wind Energy, the primary OHS hazards for the construction of WPPs are working at height, lifting operations, and working in remote locations. Project-specific ERP is essential for addressing site-specific hazards and ensuring the safety of workers and the environment.

7.5 Training

Each employee undergoes the necessary legally required H&S training, along with site induction training, before commencing any work on-site. Subcontractor employees are required to provide their H&S training certificates before commencing work. Sample OHS training certificates were provided to WSP.

Annual training plan for 2023 has been prepared for the Balabanlı WPP, covering subjects such as general Occupational Health and Safety (OHS), working from height, incident/accident investigation, OHS Representative, Environmental Representative, off-road, lockout/tagout (LOTO), first aid, Integrated Environmental Information System, environmental aspect impact assessment, waste management, fire-rescue, hygiene, working with chemicals, and office ergonomics.

The training periods are specified in the annual plan and delivered periodically to the employees. Sample attendance forms, assessment exam forms and results, as well as certificates, were provided to WSP.

Visitors receives training through an informative video of the Balabanlı WPP, and the WSP team also received training during the site visit.

Annual training plan for the Balabanlı WPP Extension Project should be prepared. Corporate Training Plan should be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.



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7.6 Accident/Incident Reporting

BEE has established a corporate Accident and Incident Reporting Procedure. The OHS Representative reports that all Project-related accidents and incidents are meticulously recorded and investigated through the online QDMS system to identify root causes. Snapshots of the QDMS screen were provided to WSP as part of the ESDD, showing no reported incidents in 2023.

A Corrective and Preventive Action (CPA) system monitors non-compliances and the completion of corrective actions for the Project. According to the CPA database provided to WSP, 2 CPAs were recorded in 2023, both related to traffic signs and disturbed roads, and reported as closed.

Accident and Incident Reporting Procedure will be implemented for the Balabanlı WPP Extension Project.

7.7 Work Tasks and Work Permit System

As per information provided by OHS Representative, any worker requiring vocational training is permitted to work on-site only if they possess the appropriate certification. Additionally, lone working is strictly prohibited at the operation site.

BEE has an online work permit system through QDMS for all their WPP operations. Additionally, Balabanlı Enerji has internal work permit forms to be filled prior to specific tasks, such as confined space, working at height, heavy lifting, electrical/mechanical works, and excavation works. Filled samples of the work permit forms were provided to WSP.

Risk assessments are prepared by each subcontractor separately, which are requested by BEE before the subcontractor commences any activity at work site. The risk assessment documents of the subcontractors were provided to WSP.

7.8 Industrial Hygiene

The most recent industrial hygiene measurements for noise were conducted on January 23, 2016, for the Balabanlı WPP office areas. The results were reported to meet the regulatory standards. According to the Turkish Regulation on Industrial Hygiene Measurement, Test, and Analysis, occupational hygiene measurements are mandated to be conducted if required by the project risk assessments. No new industrial hygiene measurements have been conducted since January 2016.

7.9 Machine/Equipment Control

BEE maintains and regularly checks an inventory of mechanical, electrical hand-tools, and office tools. Sample forms were provided to WSP.

The OHS Representative reported that periodic controls of emergency equipment, such as fire extinguishers and first-aid kits, are conducted throughout the WPP. While WSP observed that control forms were in place and up-to-date during the site visit, and the sample forms for the emergency equipment were provided to WSP.

7.10 Hazardous Materials Management

BEE maintains an inventory of chemicals and hazardous materials utilized in the WPP operation. The inventory spreadsheet, including details such as the chemical name, producer/brand, and technical specifications, has been provided to WSP. It was reported by BEE that all the SDSs for the hazardous materials used at the Balabanlı WPP are stored in the online QDMS database.

For the storage of chemicals and hazardous materials, two designated places are in use at Balabanlı WPP:



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■ The first location is a container near the TWSA, equipped with a drainage system for managing potential leaks connected to a sump pit. However, during the site visit, SDSs and the spill kit were not observed to be in place.

■ The second storage area is a cabinet located in the warehouse room within the office building. It was noted that SDSs were observed to be in place, but no spill kit was present during the site visit.

During the site visit, it was observed that some additional chemicals were stored in the warehouse room without any secondary containment. Additionally, liquid-based batteries were observed to be stored in the battery room. It was reported that the floor of the battery room is tiled and sealed.

A generator situated in front of the office building has an aboveground diesel storage tank supplying fuel next to it. The Environmental Representative reported that diesel fuel is externally supplied by barrels and manually filled into the tank. It is reported that the tank is double walled and there are sensors and alarms for leaks. Although the generator reportedly has internal secondary containment, no secondary containment was observed near the tank, and there was a lack of spill-response equipment.

Evidence that the spill-response equipment is in place near the diesel tank and the chemical storage container near the TWSA was provided to WSP as of this report.

As reported by the Environmental Representative, no environmental spills or leaks have been reported thus far.

BEE has a corporate Hazardous Materials Management Plan to effectively handle hazardous materials throughout the construction and operation phases of its projects. The aim is to prevent or, when avoidance is not possible, minimize and control the release of hazardous materials and pollution resulting from project activities. The plan outlines specific measures for storing hazardous materials and chemicals.

In light of the non-compliance observed during the site visit, the practices concerning the storage of hazardous materials and chemicals at the existing Balabanlı WPP should be enhanced to mitigate the risk of potential environmental accidents.

Considering that BEE has developed a corporate Hazardous Materials Management Plan, it is recommended to implement this plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.

7.11 Traffic Management

BEE has a corporate Traffic Management Plan for its projects to manage the impacts of using the access roads which are also used by local communities.

According to the Site Representatives, a Route Survey assessment will be conducted for transporting turbine parts to the Project Area.

During the site visit, it was noted that road conditions could become hazardous based on weather conditions. Therefore, necessary measures should be taken to improve road conditions prior to construction.

Several traffic signs were observed during the site visit, but an increase in the number of traffic signs on the access roads is recommended to be increased before the construction of the Project, considering the roads are open to the public.

A project-specific Traffic Management Plan, covering the existing operational activities and both the construction and operation phases of the Project should be developed and implemented. The revised plan should align with the Route Survey to be prepared for the Project.



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7.12 Security

The operational area of Balabanlı WPP, which includes offices and the switchyard, is enclosed by a fence. Two security personnel are assigned to each shift to monitor access and egress to the operational area, with security services provided by the third-party company Securitas. Seven security personnel are appointed for the existing Balabanlı WPP, working in three shifts, and they record the names of all visitors entering the operational area.

All existing turbine locations are fenced and equipped with camera and alarm systems, which notify security personnel in the operational area of any unauthorized movement near the turbine locations. The implementation of the alarm system was observed during the site visit.

Vocational certificates and training records for the security personnel of the existing Balabanlı WPP were provided to WSP.

Security teams of the existing Balabanlı WPP will also work for Balabanlı WPP Extension Project.

BEE has a corporate Security Management Plan, outlining actions to ensure the security of activities, assets (machinery, equipment, vehicles, etc.), employees, and local communities within the scope of its projects. This plan also emphasizes that security personnel must adhere to universal human rights and ethical rules.

During the construction phase of the Project, project-specific measures may need to be established. Considering that BEE has developed a corporate Security Management Plan, it is recommended to implement this plan covering the existing operational activities and both the construction and operation phases of the Project.

Although the corporate Security Management Plan will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, Project specific "Security Plan" identifying the number of security personnel, working shifts, and areas of responsibility will be asked from the security firm to be contracted.

7.13 Auditing and Monitoring

BEE has a corporate Internal Audit System Plan for ESMS. This plan serves as a framework and guideline for monitoring ESMS requirements, outlining principles and procedures related to ESMS Auditing. The goal is to ensure compliance with ISO certification standards and BEE's corporate ESMS documents. As per the plan, an ESMS audit, whether conducted internally or preferably externally, should be undertaken, and an ESMS Audit Report prepared for its projects.

Although an internal audit report dated May 29, 2023, was provided to WSP, it was noted that the audit report covered Integrated Management System (IMS) topics rather than ESMS-related topics. **The internal audits should specifically address ESMS topics to ensure alignment with the established plan and compliance standards.**

8.0 CUMULATIVE IMPACTS

A Cumulative Impact Assessment (CIA) was conducted during the 2017 ESIA studies for the Balabanlı WPP Extension Project. Taking into account the proximity of the closest Saray WPP to Balabanlı WPP and uncertainties regarding the implementation of the other two identified future projects, no cumulative Environmental and Social (E&S) impacts were identified at the time of that report.

As part of this ESDD study, a brief web search was conducted through the Online EIA Platform of MoEUCC and Google Earth satellite views to identify any nearby facility. The search revealed no other facility in the vicinity that might contribute to cumulative impacts alongside the Balabanlı WPP and the extension Project. Additionally,



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no information was provided by BEE regarding the existence or future plans for an industrial facility nearby the Balabanlı WPP area.

A CIA conducted during the ESIA studies for the additional 10 turbines in 2017 does not cover the 2 of the 6. Since, 2 turbines (T30 and T31) in the scope of the Balabanlı WPP Extension Project was not assessed in the ESIA (Figure 2),

Cumulative impact assessment should be conducted taking into account the nearby projects in consideration with physical, biological and social aspects of the Project following SNH Guidance "Assessing the cumulative impacts of onshore wind farms on birds" and for general aspects: IFC's Good Practice Handbook "Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets" 11.

9.0 ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY MANAGEMENT STRUCTURE

BEE has published six (6) corporate policies on their website and has established a comprehensive corporate Environmental and Social Management System (ESMS). This system is designed to address and manage the environmental, social, and health and safety impacts associated with all of BEE's projects, including the Balabanli WPP and the Balabanli WPP Extension Project. The policies and the ESMS documents include:

- Social Policy
- Health, Safety, Environment, and Energy Policy
- Supply Chain and Procurement Policy
- Human Resources Policy
- Quality Policy
- Information Security Policy
- ESMS Manual
- Environmental and Social Management Plan (ESMP)
- Training Management Plan
- Risk Assessment Procedure
- E&S Assessment Procedure
- Permit Register Plan
- Noise and Vibration Management Plan
- Air Quality Management Plan
- Waste Management Plan

¹¹ ifc-goodpracticehandbook-cumulativeimpactassessment.pdf



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¹⁰ guidance (nature.scot)

- Wastewater Management Plan
- Pollution Prevention and Resource Efficiency Management Plan
- Hazardous Materials Management Plan
- Stakeholder Engagement Plan
- Grievance Mechanism Procedure
- Social Responsibility and Community Development Plan
- Land Acquisition Plan
- Livelihood Restoration Plan
- Resettlement Action Plan
- Cultural Heritage Management Plan
- OHS Management Plan
- Emergency Response Plan
- Community Health and Safety Management Plan
- Security Management Plan
- Traffic Management Plan
- Labour Management Plan
- Labour and OHS Audit System Plan
- Equal Opportunities Plan
- Code of Conduct for Employees
- Code of Conduct for Security
- Contractor Management Plan
- Supply Chain Management Plan
- Supplier and Contractor Audit System Plan
- Code of Conduct for Supplier
- Internal Audit System Plan for ESMS

Furthermore, the Balabanlı WPP has an existing project specific ESMP prepared during the 2013 and 2017 ESIAs by AECOM. This plan consists of a table covering generic measures for the detected environmental and health and safety impacts in the report. It also includes information such as the responsible party, monitoring method, and monitoring frequency.

Additionally, BEE holds ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, ISO/IEC 27001:2013 Information Security Management and ISO 45001:2018 Occupational Health & Safety Management System at corporate level.



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BEE will implement corporate ESMS documents across all its projects. Nevertheless, certain plans require project-specific updates. The listed plans below will be revised on a project-specific basis. All other ESMS elements will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, with customization achieved through the use of forms and instructions included in the plans.

- Stakeholder Engagement Plan;
- Biodiversity Management Plan;
- Emergency Response Plan ("ERP");
- Traffic Management Plan;
- Risk Assessment;
- OHS Plan;
- Land Acquisition Plan;
- Livelihood Restoration Plan;
- Resettlement Action Plan (if required).

Additionally Human Rights policy will be developed and implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project in accordance with the recommendation in Section 6.10.

Lastly corporate Air Quality Management Plan will be updated to incorporate the GHG aspects. This updated plan will be implemented for both the existing Balabanlı WPP and the Balabanlı WPP Extension Project.

10.0 PROJECT CATEGORIZATION

The categorization of projects under the Equator Principles aligns with the IFC environmental and social categorization process. According to this process, Category B Projects are defined as those with potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures¹².

In accordance with EBRD, a project is categorized as B when its potential environmental and/or social impacts are typically site-specific and/or readily identified and addressed through effective mitigation measures. The scope of the environmental and social appraisal will be determined by EBRD on a case-by-case basis.¹³.

Consequently, the Project will be classified as Category A in compliance with the requirements of EP 4 (2020) and EBRD. This classification is attributed to the project's potential significant adverse future environmental and/or social impacts, which are divers and partially may be irreversible if not properly managed.

11.0 GAP ANALYSIS

Available information is evaluated by typology and analysed according to the Project Standards in order to identify what additional information (further data, details and studies) is required for compliance with international standards.

¹³ EBRD Environmental and Social Policy 2019



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¹² https://www.ifc.org/en/what-we-do/sector-expertise/sustainability/policies-and-standards/environmental-and-social-categorization and Equator Principles EP4 July 2020.

The identified gaps are classified with the following rating system associated to a potential risk gap, to assess the most significant gaps that need to be filled (Table 38). Gap Analysis Table is presented in APPENDIX A.

Table 38: Classification of Gaps

Score	Type of Gap
FC	Fully Compliant: The Project is fully in compliance with Project Standards, and other relevant local and international EHS policies and guidelines.
PC	Partial Compliance: The Project is not in full compliance with Project Standards, but has systems, processes or mitigation measures in place to address the gaps identified.
MN	Material Non-Compliance: The Project is not in material compliance with Project Standards and the systems, processes and mitigation measures proposed are not enough to address/close the gaps identified.
N/A	Not Applicable: The Project Standards requirements are not relevant nor applicable to the Project.

12.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the desktop studies and site visits conducted, the Project is anticipated to have limited potential environmental and social impacts and risks. In alignment with the findings of the ESDD, the project is proposed to be categorized as Category B, following the criteria set by the IFC, EBRD, and Equator Principles IV.

The "Gap Analysis Table" comprises the findings identified through the ESDD, and the ESAP encompasses the necessary actions to address and fulfil these identified gaps.

The key risks, liabilities and benefits arising from the gap analysis are the following:

- Project specific/interphase documentation needs to be developed to ensure the full implementation of the ESMS requirements during the Project activities.
- Additional assessments and baseline studies detailed below need to be conducted to comply with the Project Standards:
 - noise/air measurements,
- Cumulative impact assessment should be conducted taking into account the nearby projects and cumulative impacts require careful mitigation due to presence of existing and planned projects.
- Additional assessment detailed below need to be conducted to comply with the Project Standards:
 - Visual impact assessment,
 - Shadow flicker assessment,
 - Blade/Ice Throw Assessment,
 - Operational Noise modelling,
 - Climate Change Risk Assessment.



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■ BEE has a corporate Land Acquisition Plan however since these plans should be specific to reflect the project specific situation, Project specific Land Acquisition Plan and Livelihood Restoration Plan should be developed for the Balabanlı WPP Extension Project. Corporate Land Acquisition Plan and Livelihood Restoration Plan can be used as guideline while developing project specific plans.

- A Project-specific Stakeholder Engagement Plan in line with EBRD PR-10, IFC PS-1, EP-5, EP-6 and Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets should be prepared and should include and outline the existing documents and stakeholder engagement activities conducted.
- The corporate Social Responsibility and Community Development Plan should be implemented for the Balabanlı WPP Extension Project. Future corporate Social Responsibility initiatives should be closely monitored and planned to meet local preferences and needs. Any Social Responsibility Project carried out by BEE should be documented.
- BEE should engage with residents / landowners of the unauthorized cabins to provide information about potential hazards and impacts (e.g. noise, shadow flicker, ice throw), which involves communicating details regarding potential risks and their probable effects on individuals residing in the area (please refer to the Section 6.7 for details).
- ERP and Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project
- BEE will implement corporate ESMS documents across all its projects. Nevertheless, certain plans require project-specific updates. The listed plans below will be revised on a project-specific basis. All other ESMS elements will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, with customization achieved through the use of forms and instructions included in the plans.
 - Stakeholder Engagement Plan;
 - Biodiversity Management Plan;
 - Emergency Response Plan ("ERP");
 - Traffic Management Plan;
 - Risk Assessment;
 - OHS Plan;
 - Land Acquisition Plan;
 - Livelihood Restoration Plan;
 - Resettlement Action Plan (if required).
- Additionally Human Rights policy will be developed and implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project in accordance with the recommendation in Section 6.10.
- Lastly corporate Air Quality Management Plan will be updated to incorporate the GHG aspects. This updated plan will be implemented for both the existing Balabanlı WPP and the Balabanlı WPP Extension Project.



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Flora & Fauna

■ The flora surveys indicated that there is no endemic specific within the Project Area. Given that flora surveys for the proposed WPP extension were conducted in January 2020, a less preferable period for flora assessment, it is advisable to undertake supplementary baseline biological surveys focusing on Potentially Biodiverse Features (PBFs) within the Project Area..

- Upon reviewing the reports derived from the fauna monitoring studies, it was noted that the essential studies and observations were conducted; however, there are some identified shortcomings. Notably, despite the presence of priority biodiversity features within amphibian and reptile categories, the mitigation and prevention studies section lack necessary information. Monitoring studies were conducted primarily during winter periods when these species are inactive, leading to difficulties in identifying individuals of certain species. It is evident that an updated set of surveys, particularly focusing on reptiles and tortoise species, is imperative, as there may be a need for translocation efforts prior to construction activities.
- Given the identification of tortoise species in the project area during the prior survey, it is crucial to initiate pre-construction survey programs under the guidance of an authorized fauna expert for the Balabanlı WPP Extension Project. Site clearance procedures must be ensured before commencing any earthwork associated with the construction, thereby safeguarding identified tortoise species and adhering to environmental conservation practices.
- Comprehensive field studies are imperative to ascertain the presence and population status of priority biodiversity features, aiming to establish a well-defined, study-based dataset for these species. Specifically, field surveys should be undertaken to assess the presence of small mammals, including bats, as well as large mammals, reptiles, and amphibians. These detailed studies will contribute to a more thorough understanding of the ecological dynamics and conservation needs of these important species.
- To address mitigation measures, it is essential to develop and implement a Biodiversity Management Plan (BMP), with a specific emphasis on reptiles and, in particular, tortoise species. This targeted plan will ensure comprehensive and effective strategies to safeguard and manage the conservation needs of these reptilian populations.
- Additionally, there is a need for field studies to detect the presence of Critical Habitats (CHs) and the development of a detailed habitat map based on both desktop and field studies to validate the assessment. After detailed baseline studies Critical Habitat Assessment should be conducted for the Project using the findings of the additional biological field surveys.
- The Project currently lacks an invasive species assessment, and it is crucial to undertake an evaluation and develop a plan for monitoring and mitigating any residual impacts, including the potential introduction of invasive alien species.
- Due to the insufficient elements in the current site surveys for a comprehensive assessment of the Project's present situation, additional flora and fauna site surveys should be conducted. Following these surveys, an evaluation of the need for a Biodiversity Action Plan ("BAP") should be undertaken. Currently, assessing the need for a BAP is not possible, as no critical habitat assessment has been carried out at this stage. Therefore, Critical Habitat Assessment ("CHA") and Natural Habitat Assessment ("NHA") need to be performed for the Project.



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Birds and Bats

No desk study information has been provided for the Critical Habitats Assessment so this must be produced and an IBAT report procured.

- There is no survey coverage for T30 and T31 of the Balabanlı WPP Extension Project.
- Several monitoring surveys have been carried out for the existing Balabanlı Wind Power Plant. Comprehensive bird monitoring studies have taken place between 2013 and 2020, involving collaboration with both international institutions and local authorities. These extensive surveys have yielded significant ornithological data that can be utilized for further studies. However, it's important to note that some of the data extends beyond a five-year timeframe.
- Although there is a carcass survey conducted for the existing Balabanlı WPP, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses. The carcass survey should be conducted based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool" 14. This assessment should adhere to best practices, involving the systematic search and collection of carcasses, followed by a detailed species assessment. It must be applied to the whole WPP and the ETL15.
- As per SNH (2017) guidelines, a comprehensive annual monthly bird survey program is mandated, closely adhering to the recommendations. It is recommended to schedule the next monthly bird monitoring studies between March and June for Balabanlı WPP Extension Project. This extended monitoring period should align with the previously mentioned recommendations, emphasizing the need to verify vantage point coverage of the site. Following the next bird monitoring study, the results should be evaluated in accordance with SNH guidelines. Subsequently, an assessment of the necessity for extended monitoring until December, spanning a full year, should be conducted.
- It was determined that bat monitoring studies were not carried out within the scope Balabanlı WPP Extension Project. These studies should be carried out based on Rodrigues, L. (2015)¹⁶ in order to be considered to be EBRD PR6 / IFC PS6 guideline compliant for the purposes of international funding.
- The collision risk modelling should be updated after additional bird surveys have been conducted for the Balabanlı WPP Extension Project.
- It was also stated that there is an *Aquila heliaca* nest in the area. Therefore, these nest sites should be identified and monitored during the spring breeding period.
- Nests of the Eastern Imperial Eagle should be identified and monitored.
- A BAP should be developed and implemented and it should include the specific measures related to Eastern Imperial Eagle.

¹⁶ Rodrigues, L. (2015) Guidelines for consideration of bats in wind farm projects, Revision 2014. EUROBATS. ISBN 978-92-95058-30-9 (printed version) ISBN 978-92-95058-31-6 (electronic version) <u>EUROBATS Publication Series No.6 | UNEP/EUROBATS</u>)



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¹⁴ https://www.ifc.org/en/insights-reports/2023/bird-bat-fatality-monitoring-onshore-wind-energy-facilities

¹⁵ See PCFM Good Practice Handbook for instructions to conduct PCFM at ETL projects

 Carcass survey should be conducted for the operation phase of the Balabanlı WPP Extension Project based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool.

Based on the assessment of the documentation provided by BEE and the observations made during the field visit, the issues outlined in the gap analysis and detailed in this ESDD report have emerged. To achieve full compliance, the gaps between Project Standards and current practices must be bridged through the implementation of the ESAP and ongoing monitoring of its implementation.



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13.0 REFERENCES

- BEE Website, https://www.borusanenbw.com.tr/
- Directive 2008/50/EC, 21 May 2008, ambient air quality and cleaner air
- EBRD Guidance Note on Human Resource Policies and Employee Documentation, 2023
- EBRD, 2019, Environmental and Social Policy, https://www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html
- Equator Principles IV, 2020, EP IV, https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf
- Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles
- IFC Environmental Health and Safety Guidelines for Wind Energy
- World Bank Group's General EHS Guidelines
- IFC Good Practice Note: Addressing Grievances from Project-Affected Communities 2009
- IFC, 2012, Performance Standards on Environmental and Social Sustainability, https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standards-en.pdf
- SNH (2018) Avoidance Rates for the onshore SNH Wind Farm Collision Risk Model. Version 2
- SNH (2016) Guidance Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds
- Rodrigues, L. (2015) Guidelines for consideration of bats in wind farm projects, Revision 2014. EUROBATS.
 ISBN 978-92-95058-30-9 (printed version) ISBN 978-92-95058-31-6 (electronic version)
- Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool



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Signature Page

WSP Danışmanlık ve Mühendislik (Türkiye) Ltd. ŞTI

Ceyhun Akdede/Serkan Küçükünsal Gizem Altınkaya Kurtulmuş Environmental Engineer/Environmental Engineer Project Manager

CA/SK/EK/EG/GA

Team Member	Duty
WSP Türkiye	
Gizem Altınkaya Kurtulmuş	Project Manager
Elçin Kaya	Senior Sociologist
Çağrı Tekatlı	Senior Biologist
Ceyhun Akdede	Environmental Engineer
Serkan Küçükünsal	Environmental Engineer
Esra Güven	Sociologist

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APPENDIX A

GAP ANALYSIS



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
PR1 - Assessment and Man EP IV - Principle 2: Environ	agement of Environmental and So agement of Environmental and So mental and Social Assessment mental and Social Management Sy	cial Risk	s and Impacts			
Environmental and Social Assessment and Management System Management System	 2009 EIA Report Project EIA Report 2013 ESIA Report Corporate Level ESMS Documents of BEE Corporate Level ISO Certification of BEE BEE Website 		BEE has six (6) corporate policies on their website and has established a comprehensive corporate ESMS. This system is designed to address and manage the environmental, social, and health and safety impacts associated with all of BBE's projects, including the Balabanlı WPP and the Balabanlı WPP Extension Project. The policies and the ESMS documents include: Social Policy; Health, Safety, Environment, and Energy Policy; Supply Chain and Procurement Policy; Human Resources Policy; Quality Policy Information Security Policy ESMS Manual; Environmental and Social Management Plan (ESMP); Training Management Plan; Risk Assessment Procedure; E&S Assessment Procedure; Permit Register Plan; Noise and Vibration Management Plan; Air Quality Management Plan; Waste Management Plan; Hazardous Materials Management Plan; Hazardous Materials Management Plan; Stakeholder Engagement Plan;	across all its projects. Nevertheless, certain plans require project-specific updates. The listed plans		1.2



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			Social Responsibility and Community Development Plan;			
			Land Acquisition Plan;			
			Livelihood Restoration Plan;			
			Resettlement Action Plan;			
			Cultural Heritage Management Plan;			
			OHS Management Plan;			
			■ Emergency Response Plan;			
			Community Health and Safety Management Plan;			
			Security Management Plan;			
			■ Traffic Management Plan;			
			Labour Management Plan;			
			Labour and OHS Audit System Plan;			
			■ Equal Opportunities Plan;			
			Code of Conduct for Employees;			
			Code of Conduct for Security;			
			Contractor Management Plan;			
			Supply Chain Management Plan;			
			Supplier and Contractor Audit System Plan;			
			Code of Conduct for Supplier; and			
			Internal Audit System Plan for ESMS.			
			Furthermore, the Balabanlı WPP has an existing project specific ESMP prepared during the 2013 and 2017 ESIAs by AECOM. This plan consists of a table covering generic measures for the detected environmental and health and safety impacts in the report. It also includes information such as the responsible party, monitoring method, and monitoring frequency.			
			Additionally, BEE holds ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, ISO/IEC 27001:2013 Information Security Management and ISO 45001:2018 Occupational Health & Safety Management System at corporate level.			



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Environmental and Social Assessment and Management System Policy	■ Corporate Level Policies of BEE	PC	The Project does not have project specific policies. However, BEE has developed corporate level policies as part of the ESMS that are given below: Social Policy; Health, Safety, Environment and Energy Policy; Supply Chain and Procurement Policy; and Human Resources Policy. All policies published on the BEE's website	The policies should be implemented for the Project. Human Rights policy in accordance with EP-Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles should be developed and implemented.	BEE	1.2
Environmental and Social Assessment and Management System Identification of Risks and Impacts	 2009 EIA Report Project EIA Report 2013 ESIA Report 2017 ESIA Report Bird and Bat Activity Surveys Landscape Restoration Plan Report Ecosystem Assessment Report Inspection and Survey Report on Forest Areas 	MN	The evolution of Balabanlı WPP, along with the extension process to date is summarized in Section 3.1. The WPP Extension Project was initially planned with the installation of 10 turbines, increasing the total installed capacity by 36 MWm / 35.4 MWe (10 x 3.6 MWm / 3.54 MWe). For this purpose, the Project EIA Report was prepared by ENÇEV in January 2021, and an "EIA Positive" decision was granted on January 21, 2021. Due to licensing issues, the installation plans for the current WPP extension have been adjusted. The latest decision is to install 6 new turbines (T26-T31) instead of 10, maintaining the total capacity of 96.8 MWm / 96.8 MWe by increasing the capacity of each turbine. Four of these turbines align with the original plan outlined in the Project EIA Report, while the remaining 2 have been relocated. The Project does not involve the construction of new overhead ETL or a switchyard; instead, it will utilize the existing infrastructure. WSP has received the revised connection agreement with TEİAŞ, dated September 21, 2023. Details regarding the environmental permitting status of the existing Balabanlı WPP and the extension Project is given in Section 4.2. No Permit Register has been prepared for the existing Balabanlı WPP or the Project. Some of the environmental impacts of the Project during the construction and operation phases have been identified, mitigation measures have been suggested and the	The baseline data collection for air quality and noise ¹⁷ should be conducted to meet the Project Standards in line with the appropriate methodology and within the appropriate timeline, It is recommended to conduct baseline air quality measurements (PM ₁₀ , PM _{2.5} , NO ₂ and SO ₂) at the closest sensitive receptors, including but not limited to Yenice, Deregündüzlü, Maksutlu, and Balabanlı, by taking into consideration to the latest project design. It is recommended to conduct Settled Dust measurements at three points (one at Maksutlu,	BEE	1.6 1.7 1.8 1.9 2.3 3.2 3.3 4.1 8.1

¹⁷ Details related to baseline studies needed are given in the relevant sections.



Requirement Av	vailable Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			commitments according to the local regulations and limit values have been included in the Project EIA Report. However, these reports do not have detailed explanations related to all physical, biological and social components such as: Clear definition for the Project Aol; and Site baseline data collection in line with IFC, EBRD and EP IV Requirements. Additionally, in consideration with the EIA Regulation, latest design changes in the Project have not been submitted to PDoEUCC yet. The Project complies with national EIA regulation, yet there are gaps according to Project Standards especially in terms of physical and biodiversity components which are detailed in relevant sections and such as below: No air quality measurement conducted during EIA. No noise measurement conducted for the EIA. At this early stage of the Project where no onsite activities have been undertaken, there is currently no Emergency ERP or Risk Assessment prepared. A Shadow Flicker Assessment was conducted by AECOM during the ESIA studies for the additional 10 turbines in 2017. However, no Shadow Flicker Assessment was conducted for the turbines to be installed within the scope of the Project. Visual impacts for the first 22 turbines (T1-T22) were assessed in the 2014 ESIA studies however no specific Visual Impact Assessment was conducted. A Visual Impact Assessment was conducted for the additional 3 turbines (T23-T25) during the 2017 ESIA studies. A CIA conducted during the ESIA studies for the additional 10 turbines in 2017 does not cover the 2 of the 6. Since, 2 turbines (T30 and T31) in the scope of the Balabanli WPP Extension Project was not assessed in the ESIA.	 Additionally, considering the current situation of the Project, it is recommended to conduct air quality measurements at baseline locations at least one time during the construction period (peak time). Air quality measurement should be conducted during the operation phase if any grievance from the stakeholder received. Considering that BEE has developed a corporate Air Quality Management Plan, it is recommended to implement this plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases. GHG emissions should be calculated for the construction and operation phases of the Project. Considering the noise generated by the existing turbines, it is recommended to conduct 48 hours baseline noise measurements (24 hours for weekend and 24 hours for weekday) with 12-15 minutes intervals, at the closest sensitive receptors to be determined prior to the construction phase of the Project. Additional to the baseline, it is recommended to conduct noise measurements at least one time at the baseline locations, during the construction period (peak time). It is recommended to conduct operation phase noise modelling studies by taking into consideration to the latest project design and baseline noise measurements to be conducted. Noise measurement should be conducted during the operation phase if any grievance from the stakeholder received. It is recommended to implement Noise and Vibration Management Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases. A Project-specific ERP and Risk Assessment in accordance with the "6331 numbered Occupational 		



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
				Health and Safety" law need to be developed and implemented for the Project. Community health and safety concerns should be addressed in the ERP and risks related to community health and safety should be documented in the risk assessment. It is recommended to conduct a cumulative Visual Impact Assessment covering both the existing turbines of the Balabanlı WPP and those to be installed within the Project's scope. Cumulative impact assessment should be conducted taking into account the nearby projects in consideration with physical, biological and social aspects of the Project and cumulative impacts require careful mitigation due to presence of existing and planned projects (following SNH Guidance "Assessing the cumulative impacts of onshore wind farms on birds" and for general aspects: IFC's Good Practice Handbook "Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets" Please refer to the PS6/PR6 section for biological recommendation.		
Environmental and Social Assessment and Management System Management Programs Environmental and Social Management Plans	 Project EIA Report 2013 ESIA Report 2017 ESIA Report Corporate Level ESMS Documents of BEE 	PC	Balabanlı WPP has an existing project specific ESMP prepared during the 2013 and 2017 ESIAs by AECOM. This plan consists of a table covering generic measures for the detected environmental and health and safety impacts in the report. It also includes information such as the responsible party, monitoring method, and monitoring frequency. Also, BEE has developed corporate level environmental and social management plans.	BEE will implement corporate ESMS documents across all its projects. Nevertheless, certain plans require project-specific updates. The listed plans below will be revised on a project-specific basis. All other ESMS elements will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, with customization achieved through the use of forms and instructions included in the plans. Stakeholder Engagement Plan; Biodiversity Management Plan; Emergency Response Plan ("ERP"); Traffic Management Plan;	BEE	1.2

¹⁸ guidance (nature.scot)

 $^{^{19} \, \}underline{ifc\text{-}goodpractice} handbook\text{-}cumulative impact assessment.pdf}$



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Environmental and Social Assessment and Management System Organizational Capacity and Competency	■ Organizational structure	PC	The organizational chart of the existing Balabanlı WPP has been established and provided to WSP. Roles and responsibilities for Balabanlı WPP operations related to Environmental Health and Safety ("EHS"), Human Resources, Corporate Social Responsibility, and Community Relations are established and presented in the organizational chart. According to BEE Representatives, Community Liaison Officer ("CLO") and HSE staff of the current Balabanlı WPP will also cover the related tasks for the Balabanlı WPP Extension Project for both construction and operation phases. The full organisation chart for the construction phase of the Balabanlı WPP Extension Project will be prepared before construction. As the Project is in a very early stage and no employment has been performed yet, the organizational chart has not been finalized. The roles and responsibilities of employees are outlined in the BEE's ESMS.	 Under Plan; Land Acquisition Plan; Livelihood Restoration Plan; Resettlement Action Plan (if required). Additionally Human Rights policy will be developed and implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project in accordance with the recommendation in Section 6.10. Lastly, corporate Air Quality Management Plan will be updated to incorporate the GHG aspects. This updated plan will be implemented for both the existing Balabanlı WPP and the Balabanlı WPP Extension Project. The Organisational Chart with specific names should be finalized prior to the commence of the construction activities. Roles and responsibilities of the employees should be clearly defined in their contract and also in the job description documents. 	BEE	1.2
Environmental and Social Assessment and Management System Emergency Preparedness and Response	Documents of BEE	PC	BEE has a corporate Emergency Management Plan to perform works aimed at preventing the occurrence of any emergency or undesired event. The plan aims to reduce the damage or loss that the environment, human, and material may incur in case of an emergency or to ensure recovery without incurring damages. This is within the framework of the established management	A Project-specific Emergency Response Plan and Risk Assessment should be developed for the construction and operation phases of the Project. The ERP should include at least the followings: emergency scenarios, emergency contact numbers,	BEE	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible E Party	SAP Reference
			systems and the Health & Safety and Environmental Policy. The plan describes the procedure for determining the methods on how to control emergency situations. A copy of the official Emergency Response Plan ("ERP") for the Balabanlı WPP, prepared in compliance with the OHS Law 6331 and dated July 2023, has been provided to WSP. The plan encompasses preparedness and actions for various emergency situations, including incidents and accidents requiring first aid and evacuation, fire, earthquake, adverse weather conditions, sabotage/attack, poisoning, turbine emergencies, environmental accidents, and health incidents, in accordance with the Regulation on Emergency Situations at Workplaces (Official Gazette No. 28681, Date: 18.6.2013). The up-to-date emergency response teams, which include first-aid, firefighting, evacuation and communication, and rescue teams, are outlined in the plan. Additionally, these teams were observed to be displayed in the office areas during the site visit. According to the OHS Representative, emergency drills for various situations are regularly conducted in the Balabanli WPP. In 2023, the following drills were performed, and the drill reports were provided to WSP: Fire drill on April 26, 2023 Emergency, evacuation, and fire response drill on May 17, 2023 Poisoning drill on May 25, 2023 Turbine emergency drill on June 23, 2023 Road-closure drill on June 27, 2023 Earthquake drill on June 28, 2023 Environmental accident drill on September 27, 2023	equipment, emergency response teams etc. Community health and safety issues should be referred in Emergency Response Plan and the		
Environmental and Social Assessment and Management System Monitoring and Review	 Project EIA Report 2013 ESIA Report 2017 ESIA Report Corporate Level ESMS Documents of BEE 	PC	The Balabanlı WPP has an existing project specific ESMP prepared during the 2013 and 2017 ESIAs by AECOM. This plan consists of a table covering generic measures for the detected environmental and health and safety impacts in the report. It also includes information such as the responsible party, monitoring method, and monitoring frequency.	BEE corporate ESMS is detailed and much of it can be directly applied as project-specific documentation. KPIs in the ESMS documentation should be strictly tracked.	BEE 1	.2



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			Although monitoring activities were presented in the Project EIA Report to some extent, the Project does not have a comprehensive and project-specific Management and Monitoring Plan in accordance with the international standards. However, BEE has developed corporate level environmental and social management plans that includes monitoring and Key Performance Indicators (KPIs). Furthermore, BEE is committed to preparing an Annual Environmental and Social Report (AESR) to provide the Lender with an update on the current status of its projects. BEE has a corporate Internal Audit System Plan for ESMS. This plan serves as a framework and guideline for monitoring ESMS requirements, outlining principles and procedures related to ESMS Auditing. The goal is to ensure compliance with ISO certification standards and BEE's corporate ESMS documents. As per the plan, an ESMS audit, whether conducted internally or preferably externally, should be undertaken, and an ESMS Audit Report prepared for its projects. Although an internal audit report dated May 29, 2023, was provided to WSP, it was noted that the audit report covered Integrated Management System (IMS) topics rather than ESMS-related topics.	·		
Environmental and Social Assessment and Management System Stakeholder Engagement External Communications and Grievance Mechanisms Ongoing Reporting to Affected Communities	■ Project ESIA	PC	As part of the 2021 EIA Report for the Balabanlı WPP Extension Project, a Public Participation Meeting was held at Balabanlı Neighbourhood Coffee House in Balabanlı Neighbourhood, Muratlı District, Tekirdağ Province on 13.02.2020. Representatives from En-ÇEV A.Ş. (consultancy firm), officials from the Ministry of Environment and Urbanization, Tekirdağ Provincial Directorate of Environment and Urbanization, and project managers from Balabanlı Wind Electricity Generation Inc. (investor company) attended the meeting. Stakeholder list, stakeholder engagement activities and field study conducted with local communities within the scope of the Balabanlı WPP Extension Project were included in the Project ESIA and shared with WSP. The Project ESIA concluded that Balabanlı WPP has an existing SEP, and it will be applicable for the construction and operation phases of the Project. BEE maintains regular communication with local communities as part of the Balabanlı WPP. This established communication is set to persist for the Project.	existing Corporate SEP of BEE must be updated with	BEE	1.2 1.3 1.4 1.5



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			A Project-specific Stakeholder Engagement Plan for Balabanlı WPP and the Project has not been prepared yet.	Any Social Responsibility Project carried out by BEE should be documented.		
			A Corporate Stakeholder Engagement Plan ("SEP") for all projects within BEE portfolio has been prepared.	The Corporate Grievance Mechanism Procedure will be applicable for the Project.		
			BEE has a comprehensive Corporate Social Responsibility and Community Development Plan aligned with national and international standards. Yet, there are no corporate social	•		
		responsibility projects planned or conducted at this stage. Such projects should be designed in the future stages of the Project.	The mechanism should allow the anonymous complaints and transparent.			
		A corporate Grievance Mechanism Procedure of BEE has been established. This procedure is part of BEE ESMS and has been developed in accordance with Project Standards and	Grievances should be documented and grievance records should be kept.			
		international requirements.	NTS and SEP should be disclosed in the local			
			Mechanism are being implemented for the existing WPP. The	language(s) and in a manner that is accessible and culturally appropriate, considering any specific needs of groups.		
			Project Non-Technical Summary has not been developed yet.			
PS2 - Labor and Working C PR2 - Labour and Working EP IV – Principle 6 Grievand	Conditions					
Working Conditions and Management of Worker Relationship Human Resource Policies and Working Relationships	■ Human Resources Policy of BEE	PC	The existing Human Resources Policy of BEE in line with the requirements of the national Labour Law and respective regulations, fundamental principles of the ILO conventions ratified by Türkiye on labour and working conditions is in place at the corporate level and shared on the BEE's website. The Corporate HR Policy is being implemented for the existing Balabanlı WPP. HR Policy is communicated with all Balabanlı WPP employees and made accessible at the Balabanlı WPP site. Yet, the human resources processes which include recruitment process, working hours, worker's rights, wage policy, collective bargaining etc. for the Project are not defined in any written document specifically at this stage. The corporate ESMS of BEE includes a Labour Management Plan. This plan aims to uphold ethical, fair, and sustainable labour practices within the Project, ensuring consistent implementation across all stages of the Project.	implemented for the Project and should be	BEE	1.2 1.4 2.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Working Conditions and Management of Worker Relationship Working Conditions and Terms of Employment	 Project EIA Report Balabanlı WPP ESIA Report Labour Management Plan of BEE Corporate ESMS 	PC		The corporate Human Resources Policy will be implemented for the Project and communicated with all employees. Corporate Labour Management Plan should be implemented for the Project. Procedures should be developed under the labour management plan to address specific areas requiring clarification, such as working hours, worker's rights, wage policy, collective bargaining, responsibilities about the human resources processes etc. The human resources processes, working conditions and terms of employments should be communicated with all employees. Working conditions and terms of employment should be clearly defined in employee contracts. In case of a need for workers' accommodations, the requirements in Workers' Accommodation: Processes and Standards, IFC and EBRD, Guidance Note, 2009 shall be followed.	BEE Contractors Subcontractors	1.2 1.4 2.1
Working Conditions and Management of Worker Relationship Workers' Organizations	Human Resources Policy of BEE	PC		The corporate HR Policy should be implemented for the Project and should be communicated with all employees.	BEE	1.2 1.4 2.1
Working Conditions and Management of Worker Relationship Non-Discrimination and Equal Opportunity	■ Human Resources Policy of BEE	PC	The HR Policy of BEE includes commitment for compliance with non-discrimination and equal opportunity. BEE has Equal Opportunities Plan which states that employment decisions will not be made on the basis of personal characteristics (such as gender, race, nationality, ethnic, social, religion or belief, disability, age, or sexual orientation).	The corporate HR Policy should be implemented for the Project and should be communicated with all employees. The corporate Equal Opportunities Plan should be implemented for the Project and should be communicated with all employees. Human Rights Policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles should be developed.	BEE	1.2 1.4 2.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Working Conditions and Management of Worker Relationship Retrenchment	■ Human Resources Policy of BEE	PC	The HR Policy of BEE states a commitment to conduct an alternative assessment if collective dismissals are deemed necessary. If no alternatives are found, the policy advocates for creating and executing a retrenchment plan to mitigate adverse impacts on employees. Since the Project is in its early stages, there is no document (procedure/plan) which covers the terms of retrenchment specifically.	The corporate HR Policy should be implemented for the Project and should be communicated with all employees. If/When Retrenchment is unavoidable for the Project, a Retrenchment Plan should be prepared in line with Labour Law, EBRD PR 2, IFC PS 2 and IFC Good Practice Note: Managing Retrenchment. This plan will involve consultations with workers, their representatives, and, if necessary, government bodies, complying with existing collective agreements. Legal and contractual obligations related to notification, information provision, and consultations with employees must be adhered to. BEE shall ensure timely notice of dismissals and payment of severance, back pay, social security, and pension contributions, providing evidence of payments where necessary.	BEE	1.2 1.4 2.1
Working Conditions and Management of Worker Relationship Grievance Mechanism	 Worker Grievance Mechanism of Balabanlı WPP Grievance Mechanism Procedure of BEE BEE Corporate SEP 	PC	The Worker Grievance Mechanism are being implemented for the existing Balabanlı WPP. The Grievance Mechanism, developed in line with international requirements, have been communicated to all stakeholders and employees and implemented starting from the construction phase of Balabanlı WPP. Grievances boxes and forms are accessible at the Balabanlı WPP site. A corporate Grievance Mechanism Procedure of BEE has been established within the scope of and applicable to the BEE Projects and shared with WSP. This procedure is part of BEE ESMS and has been developed in accordance with Project Standards and international requirements.	_	BEE	1.4 2.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Protecting the Work Force Child and Forced Labour		PC	The Corporate HR Policy of BEE expresses compliance with eliminating the risk of child labour and forced labour being used in the operations of the Project, including primary suppliers.	The corporate HR Policy should be implemented for the Project and should be communicated with all employees. Human Rights Policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles should be developed.	BEE Contractors Subcontractors	1.4 2.1
Occupational Health and Safety Occupational Health and Safety	 Project EIA Report 2013 ESIA Report Corporate Level ESMS Documents of BEE 	PC	According to Occupational Health and Safety Law - No: 6331 (Official Gazette Number 28339, Date: 30.06.2012), the operational activities of the Balabanlı WPP are classified as "very hazardous." An agreement exists between Balabanlı Enerji and Artı Joint Health and Safety Unit (JHSU) for OHS services. One B class occupational safety specialist and one workplace physician are appointed for the Balabanlı WPP. In the Balabanlı WPP, an OHS Representative appointed by BEE manages day-to-day OHS-related issues, including providing training, tracking documentation, conducting drills, etc. The 2022 Annual Assessment Report, prepared by Balabanlı Enerji in accordance with Law No. 6331, was provided to WSP. The report includes risk assessments, measurements, analyses, trainings, drills, and controls conducted in 2022 for the Balabanlı WPP. The OHS Annual Work Plan for 2023, prepared by Balabanlı Enerji, was also provided to WSP. The plan identifies H&S activities (e.g., H&S Committee Meetings, training activities, monitoring activities, and testing and measurements of equipment, etc.) and relevant monitoring periods (i.e., months) for each activity. BEE has an Occupational Health and Safety Management Systems in line with ISO standards. Additionally corporate Occupational Health and Safety Management Plan is developed by BEE to provide safe environment for employees, visitors, and humans around, to indicate precaution hierarchy during the Project activities by determining health, safety risks, which occur/may occur as a result of activities, and to ensure top level occupational health and safety studies and inspections at all construction and operational activities in BEE Projects. This plan includes guidelines and minimum requirements for occupational health and safety management.	environmental, social, or health and safety plans or procedures have been established. However, the	Contractors	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			BEE has corporate ERP and Risk Assessment Procedure. There is an Emergency Response Plan of Balabanlı WPP. At this stage of the Project, no employment has been performed and no construction activity has been carried out yet.			
Occupational Health and Safety Risk Assessment	 Project EIA Report Risk Assessment Report of the Balabanlı WPP Corporate Level ESMS Documents of BEE 	PC	A Risk Assessment Report, dated April 12, 2016, was prepared for the existing Balabanlı WPP operation. It was updated on March 28, 2023, and is valid until March 28, 2024. The methodology used for the risk assessment is the Fine Kinney Method. The cover page and each page of the report include the signatures of the risk assessment team, consisting of the employer's representative, workplace physician, occupational safety specialist, worker's representatives, and 4 support personnel. Also, BEE has a corporate Occupational Health and Safety Risk Assessment Procedure and several work instructions regarding the OHS issues such as fire extinguisher maintenance and operating instruction, occupational safety equipment control instruction, working at height instruction and operation travel process instruction. As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out, no Project specific Risk Assessment has been carried out.	Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project. Risks related to community health and safety should be documented in the risk assessment. BEE should also ensure that all contractors submit copies of legally required OHS documents such as risk assessment and emergency action plan which is suitable for the work. Ensure work instructions prepared for the specific tasks and trainings to be delivered to employees before construction activities commence.	Contractors	1.2 2.3 4.1
Occupational Health and Safety Training for Workers	 Project EIA Report 2013 ESIA Report 2017 ESIA Report Corporate Level ESMS Documents of BEE 	PC	Employees of existing Balabanlı WPP have received training on various topics, including OHS, ethical standards, traffic rules, emergency action plans, air quality, stakeholder engagement, hazardous waste, and waste and noise management. Training is tailored to employees' occupations; for example, service officers receive specialised training on detergent use. BEE conducts training through an online platform called Borusan Academy. Training records have been shared with WSP. As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet, no Project specific Training Management Plan has developed. However, BEE has developed corporate level Training Management Plan and OHS Management Plan.	The corporate level Training Management Plan and OHS Management Plan should be implemented for the Project considering both construction and operation phases of the Project. The legally required trainings should be provided to all workers based on the relevant legislation before commencing construction activities. BEE should also ensure that all contractors submit copies of legally required OHS documents such training records and vocational training certificates of the employees.	BEE Contractors Subcontractors	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Occupational Health and Safety Occupational Accidents/Injuries and Diseases	 Project EIA Report 2013 ESIA Report 2017 ESIA Report Corporate Level ESMS Documents of BEE 	PC	BEE has established a corporate Accident and Incident Reporting Procedure. The OHS Representative reports that all Project-related accidents and incidents are meticulously recorded and investigated through the online QDMS system to identify root causes. Snapshots of the QDMS screen were provided to WSP as part of the ESDD, showing no reported incidents in 2023. A Corrective and Preventive Action (CPA) system monitors non-compliances and the completion of corrective actions for the Project. According to the CPA database provided to WSP, 2 CPAs were recorded in 2023, both related to traffic signs and disturbed roads, and reported as closed. As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet, no Project specific OHS Management Plan has developed.	The corporate level OHS Management Plan and Accident and Incident Reporting Procedure. should be implemented for the Project considering both construction and operation phases of the Project. BEE should also ensure that all contractors submit copies of legally required OHS documents such as the pre-employment medical examination of the employees before they start work (just the evidence that employee health surveillance conducted, not the personnel data). Ensure work instructions prepared for the specific tasks and trainings to be delivered to employees before construction activities commence. Occupational Accidents/Injuries and Diseases should be recorded for the Project and investigation should be made in order to define preventive measures for the recurrence.	BEE Contractors Subcontractors	1.2 2.3 4.1
Occupational Health and Safety Emergency Prevention, Preparedness, and Response Arrangements	Documents of BEE	PC	BEE has a corporate Emergency Management Plan to perform works aimed at preventing the occurrence of any emergency or undesired event. The plan aims to reduce the damage or loss that the environment, human, and material may incur in case of an emergency or to ensure recovery without incurring damages. This is within the framework of the established management systems and the Health & Safety and Environmental Policy. The plan describes the procedure for determining the methods on how to control emergency situations. A copy of the official ERP for the Balabanlı WPP, prepared in compliance with the OHS Law 6331 and dated July 2023, has been provided to WSP. The plan encompasses preparedness and actions for various emergency situations, including incidents and accidents requiring first aid and evacuation, fire, earthquake, adverse weather conditions, sabotage/attack, poisoning, turbine emergencies, environmental accidents, and health incidents, in accordance with the Regulation on Emergency Situations at Workplaces (Official Gazette No. 28681, Date: 18.6.2013). The up-to-date emergency response teams, which include first-aid, firefighting, evacuation and communication, and rescue teams, are outlined in the plan. Additionally, these teams were observed to be displayed in the office areas during the site visit.	ERP in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project. Community health and safety concerns should be addressed in the ERP. BEE should also ensure that all contractors submit copies of legally required OHS documents such as risk assessment and emergency action plan which is suitable for the work. Ensure work instructions prepared for the specific tasks and trainings to be delivered to employees before construction activities commence.	BEE Contractors Subcontractors	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			According to the OHS Representative, emergency drills for various situations are regularly conducted in the Balabanli WPP. In 2023, the following drills were performed, and the drill reports were provided to WSP:			
			■ Fire drill on April 26, 2023			
			 Emergency, evacuation, and fire response drill on May 17, 2023 			
			■ Poisoning drill on May 25, 2023			
			■ Turbine emergency drill on June 23, 2023			
			■ Road-closure drill on June 27, 2023			
			■ Earthquake drill on June 28, 2023			
			■ Environmental accident drill on September 27, 2023			
			■ Terror attack & sabotage drill on November 27, 2023			
			As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet, no Project specific ERP has been developed.			
Workers Engaged by Third Parties (Contracted Workers)	 Human Resources Policy of BEE BEE Corporate ESMS 	PC	BEE has a corporate ESMS which includes Contractor Audits Procedure and Contractor Management Plan which define the minimum requirements for Contractors/Sub-Contractors/Suppliers to comply with BEE's expectations and Project standards at this stage. Employee training records, employee documents, and roles and responsibilities of workers' representatives, and representative appointment letters for Balabanlı WPP are provided to WSP. There is no Project-specific management plan/procedure which covers the workers engaged by third parties. There is no Project-specific documentation or mechanism reported to WSP related to managing and monitoring the performance of third-party employers. The third-party employees have access to the existing Worker Grievance Mechanism of Balabanlı WPP. Since the construction phase of the Balabanlı WPP Extension Project has not been started yet, there is no non-employee workers for the Project. Thus, no data has been collected	Contractor Management Plan should be implemented for the Project. The contracted workers component should be included in the related management plan to be developed.	BEE Contractors Subcontractors	2.4



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			regarding non-employee workers and the supply chain of the Project.	The Grievance Mechanism procedure should be communicated with all contracted workers at the time of hiring.		
				Implementation evidence, such as complaint registration forms, should be retained.		
Supply Chain	 Human Resources Policy of BEE Supply Policy of BEE Project EIA Report Project ESIA Report Balabanlı WPP ESIA Report BEE's Annual Environmental Social Report BEE Corporate ESMS 	PC	BEE has a corporate ESMS which includes the following: Supply Policy Supply Chain Management Plan Supplier Audits Procedure Supplier Code of Conduct The Corporate HR Policy of BEE expresses compliance with eliminating the risk of child labour and forced labour being used in the operations of the Project, including primary suppliers. BEE's Corporate Supply Policy emphasizes compliance with both national laws and international standards within its supply chain. At this stage, there is no supplier list provided to WSP for the Project. The turbines to be used for the Project will be supplied from the Nordex Group. Consequently, there are no plans for any purchases from China within the supply chain. Furthermore, as part of the agreement signed with the Nordex Group, a commitment to full compliance with the BEE ESMS has been secured.	EP-4 will be systematically applied across the Project's lifecycle to identify and eliminate human rights risks for affected communities and supply chain workers. To align with Project Standards on Supply Chain requirements throughout both the construction and operational phases of the Project, it is necessary to implement specific management strategies related to contractor and supply chain management. It is recommended to implement the supply chain and contractor management plans and procedures to the Project considering both construction and operation phases of the Project. A Project related supplier list and supplier evaluation criteria should be set. The contractor management plan/procedure should cover the process for: Contractor/sub-contractor selection,	BEE Contractors Subcontractors	2.5



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference			
PS3 - Resource Efficiency and Pollution Prevention PR3 - Resource Efficiency and Pollution Prevention and Control									
Resource Efficiency	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	BEE records the amount of resource consumptions monthly, including water, energy, and fuel, through a spreadsheet. The spreadsheet for 2023 was provided to WSP. Within the Project EIA Report, only the estimated water consumption amounts have been given for the construction and operation phases. Apart from that, BEE has developed corporate level Pollution Prevention and Resource Efficiency Management Plan.	The corporate level Pollution Prevention and Resource Efficiency Management Plan should be implemented to the Project considering both construction and operation phases of the Project. Project related resource consumptions should also be identified, tracked, and referred in Project specific plans.	BEE	1.2 3.1			
Resource Efficiency Greenhouse Gases	-	MN	No information related to the GHG emissions of the Project has been presented to WSP. During the operation phase, the Project will generate renewable energy. Therefore, no negative impact related to GHG emissions will be expected in the region.	GHG emission calculations should be conducted for the construction and operation phase of the Project and necessary mitigation measures should be determined. The corporate level Air Quality Management Plan should be revised to include GHG management and implemented to the Project considering both construction and operation phases of the Project. Climate Change Risk Assessment should be conducted for the Project. in accordance with "Equator Principles Guidance Note On Climate Change Risk Assessment".	BEE	1.2 1.9 3.1 3.2			
Resource Efficiency Water Consumption	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	Existing WPP The domestic water used at the existing WPP is supplied from the Tekirdağ Metropolitan Municipality and stored in an underground water tank located in the switchyard area. The agreement between the Municipality and sample receipts were provided to WSP. Physical, chemical, and biological analyses of the domestic water used at the Balabanlı WPP are conducted every three months. Based on the analysis reports for 2022 and 2023 provided to WSP, all the analytical results met the regulatory standards. Drinking water used at the existing WPP is supplied in plastic bottles by a third-party company.	Within this regard, considering that BEE has developed a corporate Pollution Prevention and Resource Efficiency Management Plan, it is recommended to implement this plan specifically for the Project covering the existing operational activities and both the construction and operation phases of the Project.	BEE	1.2 3.1			



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			Planned WPP Extension Information for water use during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report. According to the Project EIA Report, the water consumption for personnel during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. Notably, the report lacks specification regarding the amount of water allocated for dust suppression. It is committed in the report that the water required for the Project will be sourced from the Municipality and stored in the existing underground water tank at the WPP.			
Pollution Prevention Pollution Prevention-Air	 2009 EIA Report Project EIA Report 2013 ESIA Report Corporate Level ESMS Documents of BEE 	PC	No air emissions are generated during the operational phase of the WPPs. However, during the construction phase of the Project, temporary and minor air emissions are expected, primarily resulting from activities such as excavating, loading, unloading, and the movement of vehicles. The Turkish Regulation on Industrial Air Pollution Control (RIAPC), published in the Official Gazette on 03.07.2009 (No: 27277, Appendix-2), defines the standards for assessing the impact of facilities on ambient air quality. According to the RIAPC, if the dust emission rate resulting from the activities of a new facility exceeds the limit value of 1 kg/hr, an air quality (dust) modelling study needs to be conducted for the facility. As indicated in the Project EIA Report, the maximum emission rate from construction activities in the worst-case scenario was calculated to be 0.85 kg/hr, determined for the construction of 10 turbines. Since the calculated emission rate is below the limit value of 1 kg/hr, no air quality (dust) modelling study was conducted during the EIA process. Additionally, no ambient air quality measurements have been carried out for the Balabanli WPP so far.	Considering the latest changes in the Project design (i.e., a decrease in the number of turbines and the relocation of proposed turbines) and the absence of measurements during the EIA process, it is recommended to conduct baseline air quality measurements (PM ₁₀ , PM _{2.5} , Settled Dust, NO ₂ and SO ₂) at the closest sensitive receptors, including but not limited to Yenice, Deregündüzlü, Maksutlu, Balabanlı, prior to the construction phase of the Project: PM ₁₀ and PM _{2.5} measurements - 24 hours continuously at each point Settled dust measurements at three points (one at Maksutlu, one at Balabanlı and one in the area between T26, T27, and T28) - 2 months period NO ₂ and SO ₂ measurements (passive sampling) at the closest sensitive receptors - 2 months period Additionally, considering the current situation of the Project, it is recommended to conduct air quality measurements at baseline locations at least one time during the construction period (peak time). Air quality measurement should be conducted during the operation phase if any grievance from the stakeholder received. In addition, considering that BEE has developed a corporate Air Quality Management Plan, it is recommended to implement this plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases.	BEE	1.2 1.8 3.1 3.2



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Pollution Prevention Pollution Prevention-Noise	 2009 EIA Report Project EIA Report 2013 ESIA Report Corporate Level ESMS Documents of BEE 	PC	In addition to the noise generated by the existing turbines of the Balabanlı WPP, noise generation is anticipated within the scope of the Project. This includes noise from the work machines to be used during the construction phase and the operation of the turbines during the operational phase. The noise measurements for the Balabanlı WPP were conducted in Balabanlı Neighbourhood as part of the baseline assessment during the ESIA studies in 2013 and 2017. The measurements were taken over 48 hours at 10-minute intervals. The average measured noise levels for both studies complied with the limit values specified in the Turkish regulatory and the World Bank Group's EHS Guidelines. The noise emission calculations for the construction phase were made within the EIA Report. The results were evaluated according to the national legislation limit values in the EIA Report. According to the noise emission calculations for the construction phase, the Project related noise levels were determined below the regulatory limit values. Additionally, no construction activity is planned for the night shift. The noise emission calculations conducted for the operation phase within the EIA Report. According to the calculations, the noise level at the closest sensitive receptor was determined as 45 dBA which was below the regulatory limit values at the time of the report.	turbines, it is recommended to conduct 48 hours baseline noise measurements (24 hours for weekend	BEE	1.2 1.8 3.1 3.3
Pollution Prevention Pollution Prevention-Water	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	Existing WPP The domestic water used at the existing WPP is supplied from the Tekirdağ Metropolitan Municipality and stored in an underground water tank located in the switchyard area. The agreement between the Municipality and sample receipts were provided to WSP. Physical, chemical, and biological analyses of the domestic water used at the Balabanlı WPP are conducted every three months. Based on the analysis reports for 2022 and 2023 provided to WSP, all the analytical results met the regulatory standards. Drinking water used at the existing WPP is supplied in plastic bottles by a third-party company. The corporate Pollution Prevention and Resource Efficiency Management Plan developed by BEE addresses all operational water usage concerns associated with the existing Balabanlı	It is recommended to implement the corporate Pollution Prevention and Resource Efficiency Management Plan and Wastewater Management Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases. It is recommended to implement the corporate Waste Management Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases and wastes that are expected to be generated by contractor activities (e.g. waste oils to be generated during the maintenance activities, etc.).	BEE	1.2 3.1 3.4



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			WPP, except for any commitment for the analysis of the domestic water used in the WPP.			
			The wastewater generated at the existing WPP is collected in an impermeable septic tank located in the switchyard area. It is regularly collected by vacuum trucks from the Tekirdağ Metropolitan Municipality and disposed of at the Altınova Wastewater Treatment Plant. The agreement document with the Municipality and sample wastewater collection receipts have been provided to WSP. During the site visit, no evidence of any leaks was observed in the vicinity of the septic tank. The corporate Wastewater Management Plan developed by BEE addresses all operational wastewater concerns associated with the existing Balabanlı WPP. According to the Project EIA Report, the wastewater to be generated during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. It was committed in the report that the generated wastewater will be collected in an impermeable septic tank to be installed for the Project and disposed of the site by vacuum trucks of the			
			Municipality. Planned WPP Extension			
			Information for water use and wastewater management during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report.			
			According to the Project EIA Report, the water consumption for personnel during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. Notably, the report lacks specification regarding the amount of water allocated for dust suppression. It is committed in the report that the water required for the Project will be sourced from the Municipality and stored in the existing underground water tank at the WPP.			
			According to the Project EIA Report, the wastewater to be generated during the construction and operation activities is calculated as 6.0 m³/day and 1.5 m³/day, respectively. It was committed in the report that the generated wastewater will be collected in an impermeable septic tank to be installed for the Project and disposed of the site by vacuum trucks of the Municipality.			



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Pollution Prevention Wastes (including domestic wastes, packing waste vegetable waste oil, wastewater.)	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	Existing WPP During the site visit, overall proper housekeeping was observed in general at the turbine locations, switchyard and office building. However, an accumulation of used materials from prior construction activities and empty diesel containers were observed to be stored improperly in an open area in front of the switchyard. Additionally, several empty wooden drums were found to be stored randomly behind the switchyard. The Environmental Representative reported that the selling process for these materials is currently ongoing. There is a Temporary Waste Storage Area (TWSA) and located behind the switchyard, managed by the existing WPP operation. As the facility does not produce more than 1000 kilograms of hazardous waste per month, it is not required to obtain a Temporary Hazardous Waste Storage Permit. Balabanlı Enerji obtained an approval letter for the initial Industrial Waste Management Plan on February 10, 2020, which was valid until January 2023. The Industrial Waste Management Plan was updated on February 27, 2023, and submitted to the PDoEUCC. This plan outlines the anticipated amount and types of waste to be generated in the years 2023, 2024, and 2025. During the site visit, the TWSA was observed to have two containers: a hazardous waste container and a recyclable waste container. The TWSA is equipped with a drainage system for managing potential leaks, connected to a sump pit. This system is regularly checked by employees and emptied as needed. While proper waste codes and storage were observed in the hazardous waste container, the following noncompliances were noted for the TWSA: ■ No waste codes were specified in the recyclable waste container. ■ There was no displayed information regarding the responsible person for the TWSA. ■ Despite the presence of signs, the eye wash and spill kits were not in their designated locations; instead, they were stored in the office areas.	activities. Considering that BEE has developed corporate Waste Management Plan, it is recommended to implement the corporate Waste Management Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project considering both construction and operation phases and wastes that are expected to be generated by contractor activities (e.g. waste oils to be generated during the maintenance activities, etc.).	BEE	1.2 3.1 3.4



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			Evidence that waste codes, information of the responsible person, and the eye wash and spill kits are in place was provided to WSP as of this report. It was also reported that the empty gas cylinders will be disposed of as metal waste.			
			The waste batteries were observed to be stored in a designated bin in the office building, and the bin intended for medical waste was observed in front of the building. However, it was noted that the medical waste bin lacked the "medical waste" label, and domestic waste was observed to be stored in the same bin. It was reported by BEE that the medical waste bin was removed from the site as of this report.			
			For medical, hazardous, and recyclable wastes, licensed companies were contracted, and these wastes were disposed of by these companies periodically or when the containers are full. The contracts with these waste collection companies were provided to WSP, and they are observed to be up-to-date.			
			The domestic wastes generated at the WPP are collected through bins in the office building and stored in containers located outside of the building. An agreement was signed with the Tekirdağ Metropolitan Municipality for the collection and disposal of domestic wastes, which are carried out weekly by trucks.			
			The amounts of generated wastes are recorded by type through a spreadsheet, and waste declarations to the Ministry of Environment, Urbanization, and Climate Change (MoEUCC) are submitted through the Integrated Environmental System of the ministry. Sample declaration snapshots were shared with WSP.			
			The corporate Waste Management Plan developed by BEE addresses all operational waste concerns associated with the existing Balabanlı WPP.			
			Planned WPP Extension			
			Information for waste management during the construction and operation phases of the Project limited to the calculations and commitments presented in the Project EIA Report.			
			According to the Project EIA Report, the types of wastes expected during the construction phase include domestic wastes, packaging wastes, medical wastes, hazardous wastes, end-of-life tires, excavation wastes, waste batteries, and accumulators. Based on this, the projected amount of domestic			



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			waste during the construction phase is anticipated to be 46.8 kg/day. As outlined in the Project EIA Report, all excavation material will be stored in designated excess excavation material storage areas until backfill activities are initiated.			
			During the operation phase, the Project is expected to generate domestic wastes and packaging wastes. The estimated amount of domestic waste during the operation phase is projected to be 11.7 kg/day.			
			As reported by BEE, new waste storage areas will be established for the Project activities.			
Hazardous Materials Management Chemicals / Hazardous Material Management Pesticide Use and Management	 Corporate Level ESMS Documents of BEE 	PC	spreadsheet, including details such as the chemical name,	In light of the non-compliance observed during the site visit, the practices concerning the storage of hazardous materials and chemicals at the existing Balabanlı WPP should be enhanced to mitigate the risk of potential environmental accidents. Considering that BEE has developed a corporate Hazardous Materials Management Plan, it is recommended to implement this plan covering the existing operational activities and both the construction and operation phases of the Project.	BEE	1.2 2.3 3.1 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference			
PS4 - Community Health, S PR4 - Health, Safety and Se									
	ecurity	PC	BEE has a corporate ESMS which includes the following: Health, Safety, Environment and Energy Policy Community Health and Safety Management Plan HSE Communication Procedure Security Management Plan Traffic Management Plan Emergency Management Procedure Risk Assessment Procedure Emergency Response Plan ("ERP") Existing WPP ERP and Risk Assessment in accordance with the "6331 numbered Occupational Health and Safety" of the existing Balabanlı WPP provided to WSP Türkiye. During the site visit, it was noted that several unauthorized cabins (most of which has no infrastructure such as electricity, water, wastewater etc) had been constructed in close proximity to existing turbine locations. Site Representatives indicated that these cabins were built after the Balabanlı WPP commenced operations (approximately in the last 3 years) and are used seasonally, particularly during the summer months on the weekends. It is highly probable that those cabins are used to store the agricultural equipment. These cabins are not close extension turbine locations. No interviews were conducted with the residents or landowners of these unauthorized cabins since they were not present during the site visit. In a meeting with the Mukhtar of Balabanlı, it was mentioned that the owners of these buildings were not local residents but rather individuals from outside the region. Given that the cabins are situated in an area designated as agricultural land, their construction is not permitted and is considered illegal.	law need to be developed and implemented for the Project. Community health and safety concerns should be addressed in the ERP and risks related to community health and safety should be documented in the risk assessment.	BEE Contractors Subcontractors	1.2 1.4 2.3 4.1			
					Municipality and got informed that these illegal cabins will demolished.	The Mukhtar also stated that he made a complaint to Muratli Municipality and got informed that these illegal cabins will be demolished. This situation poses risks for both the residents of the	shall be conducted to consider these cabins for current Balabanlı WPP Project. BEE should engage with residents / landowners of the unauthorized cabins to provide information about		
			unauthorized cabins and BEE. The Mukhtar mentioned that	potential impacts (e.g. noise, shadow flicker,					



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			there have been fires in these unauthorized cabins before, which were fortunately contained. However, there is a potential risk that future fires may not be easily controlled, posing a threat to BEE operations. It is crucial to address this issue promptly and collaboratively to mitigate potential impacts. The operational area of Balabanlı WPP, which includes offices and the switchyard, is enclosed by a fence. Two security personnel are assigned to each shift to monitor access and egress to the operational area, with security services provided by the third-party company Securitas. Seven security personnel are appointed for the existing Balabanlı WPP, working in three shifts, and they record the names of all visitors entering the operational area. Planned WPP Extension At this early stage of the Project where no onsite activities have been undertaken, there is currently no ERP or Risk Assessment prepared. Security teams of the existing Balabanlı WPP will also work for Balabanlı WPP Extension Project. Also, no Project-specific Traffic Management Plan (TMP) or Security Management Plan (SMP) has been prepared. There is no Project-specific shadow flicker assessment conducted at this stage.	ice/blade throw), which involves communicating details regarding potential risks and their probable effects. BEE should engage in discussions with the Muratli Municipality regarding the unauthorized cabins in the area. The Muratli Municipality holds the responsibility for demolishing these cabins. BEE should provide a detailed explanation of the risks to the Municipality to prompt necessary action. If the municipality fails to promptly remove these cabins, and if the owners do not voluntarily vacate the area upon being informed of the risks, BEE should monitor the impacts on these sites and consistently provide updated information to ensure awareness and encourage necessary actions. Noise impact will be monitored through monthly measurements during the summer period throughout the first year of operation. Ice throw risk will be monitored by reviewing SCADA results, analysing meteorological data recorded at the Balabanli WPP, and conducting visual observations during the period between December and March. Engagement with them will occur concerning their experience with shadow-flicker throughout the first year of operation. They will also be informed about the Project Grievance Mechanism, allowing them to convey any grievances related to shadow-flicker impacts. BEE should actively engage residents and landowners in the social impact assessment process as part of the ESIA for the Balabanli WPP. This involvement is crucial to gather the opinions of the local community and landowners, and to gain insights into the reasons behind the construction of unauthorized cabins in the area, particularly after the turbine construction. This collaborative approach ensures a comprehensive understanding of the social impact and allows for the incorporation of community perspectives into the assessment process.		



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Community Health and Safety Infrastructure and Equipment Design and Safety		N/A	Not applicable at this stage	-	-	-
Community Health and Safety Hazardous Materials Management and Safety	■ Corporate Level ESMS Documents of BEE	PC	spreadsheet, including details such as the chemical name,	In light of the non-compliance observed during the site visit, the practices concerning the storage of hazardous materials and chemicals at the existing Balabanlı WPP should be enhanced to mitigate the risk of potential environmental accidents. Considering that BEE has developed a corporate Hazardous Materials Management Plan, it is recommended implement this plan covering the existing operational activities and both the construction and operation phases of the Project.	BEE	1.2 2.3 3.1 4.1
Community Health and Safety Product and Services Safety		N/A	Not applicable at this stage	-	-	-



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Community Health and Safety Traffic and Road Safety	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	BEE has a corporate Traffic Management Plan for its projects to manage the impacts of using the access roads which are also used by local communities. According to the Site Representatives, a Route Survey assessment will be conducted for transporting turbine parts to the Project Area. Several traffic signs were observed during the site visit. During the site visit, it was noted that road conditions could become hazardous based on weather conditions. During the construction phase of the Project, project-specific measures may need to be established.	A project-specific Traffic Management Plan, covering the existing operational activities and both the construction and operation phases of the Project should be developed and implemented. The revised plan should align with the Route Survey to be prepared for the Project. Necessary measures should be taken to improve road conditions prior to construction. The number of traffic signs on the access roads is recommended to be increased before the construction of the Project, considering the roads are open to the public.	Contractors	1.2 2.3 4.1
Community Health and Safety Natural Hazards	 Project EIA Report Corporate Level ESMS Documents of BEE 	PC	BEE has a corporate Emergency Management Plan to perform works aimed at preventing the occurrence of any emergency or undesired event. The plan aims to reduce the damage or loss that the environment, human, and material may incur in case of an emergency or to ensure recovery without incurring damages. This is within the framework of the established management systems and the Health & Safety and Environmental Policy. The plan describes the procedure for determining the methods on how to control emergency situations. A copy of the official Emergency Response Plan ("ERP") for the Balabanlı WPP, prepared in compliance with the OHS Law 6331 and dated July 2023, has been provided to WSP. The plan encompasses preparedness and actions for various emergency situations, including incidents and accidents requiring first aid and evacuation, fire, earthquake, adverse weather conditions, sabotage/attack, poisoning, turbine emergencies, environmental accidents, and health incidents, in accordance with the Regulation on Emergency Situations at Workplaces (Official Gazette No. 28681, Date: 18.6.2013). The up-to-date emergency response teams, which include first-aid, firefighting, evacuation and communication, and rescue teams, are outlined in the plan. Additionally, these teams were observed to be displayed in the office areas during the site visit. According to the OHS Representative, emergency drills for various situations are regularly conducted in the Balabanli WPP. In 2023, the following drills were performed, and the drill reports were provided to WSP: Fire drill on April 26, 2023	Emergency Response Plan. This plan should include at least the followings: emergency scenarios, emergency contact numbers, site plans of muster points, location of emergency equipment, emergency response teams etc. Community health and safety issues should be referred in Emergency Response Plan and the methodology to manage the emergencies may be related to community should be included in the Emergency Response Plan.	BEE	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			 Emergency, evacuation, and fire response drill on May 17, 2023 Poisoning drill on May 25, 2023 Turbine emergency drill on June 23, 2023 Road-closure drill on June 27, 2023 Earthquake drill on June 28, 2023 Environmental accident drill on September 27, 2023 Terror attack & sabotage drill on November 27, 2023 As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet, no Project specific ERP has been developed. 			
Community Health and Safety Ecosystem Services	■ Project EIA Report	PC	The Project will be located on agricultural lands, thus necessitating a land acquisition process. If the required area predominantly covers a significant portion of the land, the primary aim of BEE is to purchase the land through negotiation with the owners of the parcels. In cases where only a small part of the land is affected, expropriation will be pursued. After expropriation, the intention is to utilize only a portion of the expropriated land for the Project. Consequently, the remaining parts of the land will be made available for the original owners/users' use. According to the results of the community level surveys, there are mobile beekeepers present in Çevrimkaya, Maksutlu, Deregündüzlü, and Yenice neighbourhoods.	Stakeholder engagement and consultation with the affected communities should be initiated if any impact is anticipated on the land use, to understand and address concerns regarding pasture lands and private parcels. BEE has a corporate Land Acquisition Plan however since these plans should be specific to reflect the project specific situation, Project specific Land Acquisition Plan and Livelihood Restoration Plan should be developed for the Balabanlı WPP Extension Project. Corporate Land Acquisition Plan and Livelihood Restoration Plan can be used as guideline while developing project specific plans. Further engagement might be required with the beekeepers considering the construction impacts of the Project. If required, compensation for any production loss should be provided based on the requirements stared in corporate Livelihood Restoration Plan.	BEE	4.1 5.1
Community Health and Safety Community Exposure to Disease	Management Plan of BEE		There is a corporate level Community Health and Safety Management Plan. Balabanlı Enerji provides a worker health surveillance program for its workers periodically and at the start of the employment period. Sample records were provided to WSP. As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet,	Health surveillance program should be developed for the Project, and requirements should be stated in HS plans/procedures. BEE should request the pre-employment medical examination from contractors before they start work for the Project (just the evidence that employee health surveillance conducted, not the personnel data).	BEE Contractors Subcontractors	1.2 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			there is no employee health surveillance program developed and workplace physician is not appointed yet.	The precautions to be taken to protect workers and community against infectious/communicable diseases should be communicated with workers before commencing construction activities for the Project.		
Community Health and Safety Emergency Preparedness and Response	 Corporate Level ESMS Documents of BEE Emergency Response Plan of Balabanlı WPP 	PC	BEE has a corporate Emergency Management Plan to perform works aimed at preventing the occurrence of any emergency or undesired event. The plan aims to reduce the damage or loss that the environment, human, and material may incur in case of an emergency or to ensure recovery without incurring damages. This is within the framework of the established management systems and the Health & Safety and Environmental Policy. The plan describes the procedure for determining the methods on how to control emergency situations. A copy of the official Emergency Response Plan ("ERP") for the Balabanli WPP, prepared in compliance with the OHS Law 6331 and dated July 2023, has been provided to WSP. The plan encompasses preparedness and actions for various emergency situations, including incidents and accidents requiring first aid and evacuation, fire, earthquake, adverse weather conditions, sabotage/attack, poisoning, turbine emergencies, environmental accidents, and health incidents, in accordance with the Regulation on Emergency Situations at Workplaces (Official Gazette No. 28681, Date: 18.6.2013). The up-to-date emergency response teams, which include first-aid, firefighting, evacuation and communication, and rescue teams, are outlined in the plan. Additionally, these teams were observed to be displayed in the office areas during the site visit. According to the OHS Representative, emergency drills for various situations are regularly conducted in the Balabanli WPP. In 2023, the following drills were performed, and the drill reports were provided to WSP: Fire drill on April 26, 2023 Emergency, evacuation, and fire response drill on May 17, 2023 Poisoning drill on May 25, 2023 Turbine emergency drill on June 23, 2023 Road-closure drill on June 27, 2023	ERP in accordance with the "6331 numbered Occupational Health and Safety" law need to be developed and implemented for the Project. Community health and safety concerns should be addressed in the ERP. BEE should also ensure that all contractors submit copies of legally required OHS documents such as risk assessment and emergency action plan which is suitable for the work. Ensure work instructions prepared for the specific tasks and trainings to be delivered to employees before construction activities commence.	BEE Contractors Subcontractors	1.2 1.4 2.3 4.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Security Personnel Security Personnel Requirements	■ Security Management Plan of BEE Corporate ESMS	PC	■ Environmental accident drill on September 27, 2023 ■ Terror attack & sabotage drill on November 27, 2023 As the Project is in a very early stage, no employment has been performed and no construction activity has been carried out yet, no Project specific ERP has been developed. security personnel are assigned to each shift to monitor access and egress to the operational area, with security services provided by the third-party company Securitas. Seven security personnel are appointed for the existing Balabanlı WPP, working in three shifts, and they record the names of all visitors entering the operational area. All existing turbine locations are fenced and equipped with camera and alarm systems, which notify security personnel in the operational area of any unauthorized movement near the turbine locations. The implementation of the alarm system was observed during the Site Visit. Vocational certificates and training records for the security personnel of the existing Balabanlı WPP were provided to WSP. BEE has a corporate Security Management Plan, outlining actions to ensure the security of activities, assets (machinery, equipment, vehicles, etc.), employees, and local communities within the scope of its projects. This plan also emphasizes that security personnel must adhere to universal human rights and ethical rules.	During the construction phase of the Project, project-specific measures may need to be established. Considering that BEE has developed a corporate Security Management Plan, it is recommended to implement this plan covering the existing operational activities and both the construction and operation phases of the Project. Although corporate Security Management Plan will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, Project specific "Security Plan" identifying the number of security personnel, working shifts, areas of responsibility will be asked from security firm to be contracted.	Contractors	1.2 4.1
PS5 - Land Acquisition and PR5 - Land Acquisition, Re General	Involuntary Resettlement strictions on Land Use and Involun Project EIA Report Corporate Level ESMS Documents of BEE	tary Reso	As per the Project's EIA Report, the determination of agricultural land within the Project area occurs during mapping and expropriation procedures. The characteristics of these lands will be assessed in accordance with specific laws governing soil conservation, pasture usage, and aquatic product regulation. Before construction activities begin, all necessary consultations and permissions will be obtained from the Tekirdağ Provincial Directorate of Agriculture and Forestry. In the event of private property expropriation, the EMRA will oversee the process according to electricity market laws. Expropriation procedures will adhere to Expropriation Law No. 2942.	Project-specific Land Acquisition Plan and Livelihood Restoration Plan should be developed for the Balabanlı WPP Extension Project. As outlined in BEE's corporate ESAP, in case any expropriation is required, consultations should be held with stakeholders before the expropriation for land acquisition through voluntary negotiation. Impacts on livelihoods should be assessed and mitigated/compensated in a consultative manner. Any expropriation must be carried out in accordance with Project Standards and national legislation.	BEE Contractors Subcontractors	5.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			The Project aims to negotiate land purchases with parcel owners where a significant area is required. However, smaller affected portions may undergo expropriation. Afterward, only a section of the expropriated land will be used for the Project, while the remaining parts will be available for the original owners or users. BEE has a Corporate Land Acquisition Plan.	Provide transparent and regular updates to the affected communities regarding the status and progress of land acquisition and expropriation process, fostering a transparent and communicative approach. Stakeholder engagement and consultation with the affected communities should be initiated if any impact is anticipated on the land use, to understand and address concerns regarding pasture lands and private parcels. BEE should regularly review and ensure compliance with regulatory requirements concerning land use and environmental impact, incorporating feedback from stakeholders to enhance the effectiveness of mitigation strategies. The expropriation processes within the Project scope will be carried out in accordance with Expropriation Law No. 2942.		
Resettlement	 Corporate Level ESMS Documents of BEE Site Visit Findings 		During the site visit, it was noted that several unauthorized cabins (most of which has no infrastructure such as electricity, water, wastewater etc) had been constructed in close proximity to existing turbine locations. Site Representatives indicated that these cabins were built after the Balabanlı WPP commenced operations (approximately in the last 3 years) and are used seasonally, particularly during the summer months on the weekends. It is highly probable that those cabins are used to store the agricultural equipment. These cabins are not close extension turbine locations. No interviews were conducted with the residents or landowners of these unauthorized cabins since they were not present during the site visit. In a meeting with the Mukhtar of Balabanlı, it was mentioned that the owners of these buildings were not local residents but rather individuals from outside the region. Given that the cabins are situated in an area designated as agricultural land, their construction is not permitted and is considered illegal. The Mukhtar also stated that he made a complaint to Muratlı Municipality and got informed that these illegal cabins will be demolished. This situation poses risks for both the residents of the unauthorized cabins and BEE. The Mukhtar mentioned that there have been fires in these unauthorized cabins before, which were fortunately contained. However, there is a potential	Specific health and safety assessments, such as Shadow Flicker and Blade/Ice Throw Assessment, shall be conducted to consider these cabins for current Balabanlı WPP Project. BEE should engage with residents / landowners of the unauthorized cabins to provide information about potential impacts (e.g. noise, shadow flicker, ice/blade throw), which involves communicating details regarding potential risks and their probable effects. BEE should engage in discussions with the Muratlı Municipality regarding the unauthorized cabins in the area. The Muratlı Municipality holds the responsibility for demolishing these cabins. BEE should provide a detailed explanation of the risks to the Municipality to prompt necessary action. If the municipality fails to promptly remove these cabins, and if the owners do not voluntarily vacate the area upon being informed of the risks, BEE should monitor the impacts on these sites and consistently provide updated information to ensure awareness and encourage necessary actions.	BEE Contractors Subcontractors	5.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			risk that future fires may not be easily controlled, posing a threat to BEE operations. It is crucial to address this issue promptly and collaboratively to mitigate potential impacts.	Noise impact will be monitored through monthly measurements during the summer period throughout the first year of operation.		
				Ice throw risk will be monitored by reviewing SCADA results, analyzing meteorological data recorded at the Balabanlı WPP, and conducting visual observations during the period between December and March.		
				■ Engagement with them will occur concerning their experience with shadow-flicker throughout the first year of operation. They will also be informed about the Project Grievance Mechanism, allowing them to convey any grievances related to shadow-flicker impacts.		
				BEE should actively engage residents and landowners in the social impact assessment process as part of the ESIA for the Balabanlı WPP. This involvement is crucial to gather the opinions of the local community and landowners, and to gain insights into the reasons behind the construction of unauthorized cabins in the area, particularly after the turbine construction. This collaborative approach ensures a comprehensive understanding of the social impact and allows for the incorporation of community perspectives into the assessment process.		
	vation and Sustainable Managemen vation and Sustainable Managemen					
Assessment of Biodiversity and Living Natural Resources Flora & Fauna	 Project EIA Report ESIA Report Flora & Fauna Reports 		The habitat structure of the Project Area and its surroundings generally consists of anthropogenic areas and fragmented forest areas used by local people for agricultural activities and livestock grazing. There are key biodiversity areas (KBA-IBA) around the Project	and is under anthropogenic pressure, no additional flora surveys are requested for the Project. Upon reviewing the reports derived from the fauna monitoring studies, it was noted that the essential	External consultants	6.1 6.3 6.4 6.5



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			No critical and endangered species were identified in the flora studies carried out within the Project Area within the scope of capacity increase during the flora studies conducted before. In the flora studies carried out within the scope of the Project, it was determined that no assessment was made in terms of invasive plant species that could be transported by vehicles during the construction processes. No critical habitats have been identified in and around the Project Site. It has been determined that the region is generally used as agricultural areas and has lost its natural characteristics. However, endangered and threatened species.	updated set of surveys, particularly focusing on reptiles and tortoise species, is imperative, as there may be a need for translocation efforts prior to construction activities. Given the identification of tortoise species in the project area during the prior survey, it is crucial to initiate pre-construction survey programs under the guidance of an authorized fauna expert for the Balabanlı WPP Extension Project. Site clearance procedures must be ensured before commencing any earthwork associated with the construction, thereby		
			characteristics. However, endangered and threatened species have been identified among fauna species. In the studies carried out for fauna species in the Project Area before installation and within the scope of capacity increase, no assessment was made in terms of endangered and endangered species among the critical fauna species. Protection measures to be taken especially for <i>Testudo</i> sp. And <i>Spermophilus citellus</i> were not included in the report. According to the studies; Eastern Spadefoot (<i>Pelobates syriacus</i>), Common Toad (<i>Bufo bufo</i>), Green Toad (<i>Bufotes viridia</i>), Europian Merch, from (<i>Pelophylay ridibundus</i>), are the	safeguarding identified tortoise species and adhering to environmental conservation practices. Comprehensive field studies are imperative to ascertain the presence and population status of critical species, aiming to establish a well-defined, study-based dataset for these species. Specifically, field surveys should be undertaken to assess the presence of small mammals, including bats, as well as large mammals, reptiles, and amphibians. These detailed studies will contribute to a more thorough understanding of the ecological dynamics and		
			viridis), Eurasian Marsh frog (Pelophylax ridibundus) are the Amphibian species likely to be found in the Project Area. Common tortoise (Testudo graeca), Thracian tortoise (Testudo hermanni), Large green lizard (Lacerta diplochondrodes), Green lizard (Lacerta viridis), Broad-toed gecko (Hemidactylus turcicus), and Slender lizard (Ablepharus kitaibeili) are among the Reptilia species identified in the Project Area. Lesser Shrew (Crocidura suaveolens), Bicolored Shrew (Crocidura leucodon), Hare (Lepus europaeus), Common pipietrollus, (Pipietrollus, pipietrollus), are Mammalian, species	conservation needs of these important species. To address mitigation measures, it is essential to develop and implement a Biodiversity Action Plan (BAP), with a specific emphasis on reptiles and, in particular, tortoise species. This targeted plan will ensure comprehensive and effective strategies to safeguard and manage the conservation needs of these reptilian populations. Additionally, there is a need for field studies to detect		
			pipistrellus (<i>Pipistrellus pipistrellus</i>) are Mammalian species likely to be found in the Project Area. According to the expert(s) who carried out the studies on fauna species, the fauna elements found in the Project Area have been evaluated within the scope of IUCN Red List of Threatened Species 2008 and international conventions (BERN, CITES) to which Türkiye is a party, and there are no species under threat of extinction. However, among the species given above, the Common tortoise (<i>Testudo graeca</i>) is in the "VU"-Vulnerable category, the Thracian tortoise (<i>Testudo hermanni</i>) is in the "EN" endangered category globally and in the "NT"-Near Threatened	the presence of Critical Habitats (CHs) and the development of a detailed habitat map based on both desktop and field studies to validate the assessment. After detailed baseline studies Critical Habitat Assessment should be conducted for the Project using the findings of the additional biological field surveys. The Project currently lacks an invasive species assessment, and it is crucial to undertake an		



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Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			category in Europe. These species were not categorized as Endangered by the expert in the report. In the studies conducted for mammal species in the Project Area, 8 mammal species were observed. Among these species, only <i>Pipistrellus pipistrellus</i> was identified by observation. In addition, interviews with local people revealed that <i>Vulpes vulpes</i> and <i>Lepus europaeus</i> species are seen in the region. Since the observations were carried out in February within the scope of the capacity increase, the current status of reptile and mammal species, especially those in the hibernation period, may not have been determined. For this reason, it is thought that the data obtained from the observations made in the Project Area do not cover the existing fauna species of the region.	mitigating any residual impacts, including the potential introduction of invasive alien species.		
Assessment of Biodiversity and Living Natural Resources Birds and Bats	 Project EIA Report ESIA Report Bird and Bat Activity Surveys Reports 		Monitoring studies on birds and bats conducted for existing Balabanlı WPP between 2017-2020. While the reports are comprehensive, they lack detailed information on the methodology employed in the surveys. It was identified that the previous reports had a limited number of observation days, falling short of adequately covering migration periods. The Project Area was found to be situated along a migration route, with the identification of <i>Aquila heliaca</i> nests and young individuals in the region. Additionally, bird carcasses were discovered during carcass survey studies. However, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses. According to ornithological monitoring reports, the mobility of endangered bird species has been identified within the project area. It has been determined by observations that the flights of these species fly at CRH. In addition, it was determined in previous monitoring studies that there was a nest near the ETL of <i>Aquila heliaca</i> , which is in the IUCN "VU" category, but it was stated that the nest was not actively used in 2017 observations. There is a high probability that a nest and young individuals of <i>Aquila heliaca</i> can be seen in and around the Project site. In addition, carcasses were detected in the carcass surveys, albeit	Several monitoring surveys have been carried out for the existing Balabanlı Wind Power Plant. Comprehensive bird monitoring studies have taken place between 2013 and 2020, involving collaboration with both international institutions and local authorities. These extensive surveys have yielded significant ornithological data that can be utilized for further studies. However, it's important to note that some of the data extends beyond a five-year timeframe. Although there is a carcass survey conducted for the existing Balabanlı WPP, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses. The carcass survey should be conducted based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool"20. This assessment should adhere to best practices, involving the systematic search and collection of carcasses, followed by a detailed species assessment. As per SNH (2017) guidelines, a comprehensive annual monthly bird survey program is mandated,	BEE External consultants	6.2 6.3 6.5 6.6 6.7 6.8 6.9

²⁰ https://www.ifc.org/en/insights-reports/2023/bird-bat-fatality-monitoring-onshore-wind-energy-facilities



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			at a low rate. For this reason, monitoring should be carried out in spring and fall periods outside of capacity increase studies. In addition, nest and hatchling monitoring should be carried out for <i>Aquila heliac</i> a species.	closely adhering to the recommendations. It is recommended to schedule the next monthly bird monitoring studies between March and June. This extended monitoring period should align with the		
			In the monitoring studies on fauna species, it was reported that individuals belonging to <i>Spermophilus citellus</i> and <i>Testudo graeca</i> species were detected within the project area. These species are endangered and need to be protected. Measures to be taken for these species are not specified in the report. During the observations, Vulnerable (VU) Greater spotted eagle	previously mentioned recommendations, emphasizing the need to verify vantage point coverage of the site. Following the next bird monitoring study, the results should be evaluated in accordance with SNH guidelines. Subsequently, an assessment of the necessity for extended monitoring until December, spanning a full year, should be		
			and Eastern imperial eagle flights were detected at the Project Area.	conducted. No desk study information has been provided for the		
			During the observations, Greater spotted eagle, Eastern Imperial Eagle, Red footed Falcon and Merlin were detected in VPs. These three species are endangered and under protection	Critical Habitats Assessment so this must be produced and an IBAT report procured. There is no survey coverage for T30 and T31 of the		
			according to the IUCN Red List (VU). During the bird survey, two different locations with high nesting potential for Eastern Imperial Eagle were identified and it was	Balabanlı WPP Extension Project. It was determined that bat monitoring studies were		
			stated that monitoring studies should be carried out for this species during the breeding period.	not carried out within the scope Balabanlı WPP Extension Project. These studies should be carried out based on Rodrigues, L. (2015) ²¹ in order to be		
			No desk study information has been provided for the Critical Habitats Assessment so this must be produced and an IBAT report procured.	considered to be EBRD PR6 / IFC PS6 guideline compliant for the purposes of international funding. The collision risk modelling should be updated after		
			There is no survey coverage for T30 and T31 of the Balabanlı WPP Extension Project.	additional bird surveys have been conducted for the Balabanlı WPP Extension Project. It was also stated that there is an <i>Aquila heliaca</i> nest		
			Several monitoring surveys have been carried out for the existing Balabanlı Wind Power Plant. Comprehensive bird monitoring studies have taken place between 2013 and 2020, involving collaboration with both international institutions and	in the area. Therefore, these nest sites should be identified and monitored during the spring breeding period.		
			local authorities. These extensive surveys have yielded significant ornithological data that can be utilized for further studies. However, it's important to note that some of the data extends beyond a five-year timeframe.	A BAP should be developed and implemented and it should include the specific measures related to Eastern Imperial Eagle.		
			Although there is a carcass survey conducted for the existing Balabanlı WPP, the methodology for the carcass survey is not clearly outlined in the reports. The insufficient number of	Carcass survey should be conducted for the operation phase of the Balabanlı WPP Extension Project based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy		

²¹ Rodrigues, L. (2015) Guidelines for consideration of bats in wind farm projects, Revision 2014. EUROBATS. ISBN 978-92-95058-30-9 (printed version) ISBN 978-92-95058-31-6 (electronic version)

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Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Destantian and			carcass survey days raises the possibility that scavengers may have contributed to the collection of carcasses. It was determined that bat monitoring studies were not carried out within the scope Balabanlı WPP Extension Project.	Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool.		
Protection and Conservation of Biodiversity	 Project EIA Report ESIA Report Flora & Fauna Reports Bird and Bat Activity Surveys Reports 		Biodiversity Management Plan (BMP) and/or Biodiversity Action Plan (BAP) have not been prepared for the Project. There is no invasive species assessment for the Project. Assessment and planning for monitoring and mitigation of residual impacts including the potential of invasive alien species is required. The Project currently lacks an invasive species assessment, and it is crucial to undertake an evaluation and develop a plan for monitoring and mitigating any residual impacts, including the potential introduction of invasive alien species.	 BEE is required to develop a Biodiversity Management Plan that includes measures and mitigations for potential adverse impacts of existing Balabanlı WPP and Balabanlı WPP Extension Project and monitoring requirements. BEE should assess the need for a BAP after CHA and NHA are developed. If developed; BAP should include the specific measures related to Eastern Imperial Eagle. BAP should have a specific focus on reptiles, particularly tortoise species, in order to address mitigation measures. It should ensure comprehensive and effective strategies to safeguard and manage the conservation needs of these reptilian populations. 	External consultants	6.1 6.3 6.4 6.5 6.6 6.7 6.8 6.9
Management of Ecosystem Services PS7 – Indigenous Peoples PR7 – Indigenous Peoples	 Project EIA Report ESIA Report Flora & Fauna Reports Bird and Bat Activity Surveys Reports 		An assessment of Natural Habitat and Critical Habitat has not been performed.	There is a need for field studies to detect the presence of Critical Habitats (CHs) and the development of a detailed habitat map based on both desktop and field studies to validate the assessment. After detailed baseline studies, Natural Habitat Assessment and Critical Habitat Assessment should be conducted for the Project with using the findings of the additional biological field surveys.	BEE External consultants	6.1 6.5
General General	-	N/A	This title has not been evaluated since the local population is not present in Türkiye.	No action required	-	-



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
PS8 – Cultural Heritage PR8 – Cultural Heritage						
Assessment and Management of Impacts on Cultural Heritage	 Project EIA Report 2013 ESIA Report Corporate Level ESMS Documents of BEE 	PC	measures in the ESMP to preserve archaeological remains during the construction phase. Similarly, the 2017 ESIA for the Balabanlı WPP Extension Project determined residual impacts to be negligible post-mitigation. It outlined the implementation of a Chance Find Procedure in case of encountering archaeological or historical	Corporate CHMP of BEE should be implemented for the Project. Cultural heritage management and chance finds procedure training should be provided to all Project's employees. Especially at the construction phase all employees should receive cultural heritage training in order to know what cultural heritage is and how to respond in case they come across any cultural heritage. Cultural heritage training for all employees before commencing work shall be provided.	BEE	1.2 8.1
Project's Use of Cultural Heritage	-	N/A	Not Applicable	No action required	-	-
PR9 – Financial Intermedia	ries					
General	-	N/A	This title has not been evaluated since there is no financial intermediaries for the Project.	No action required	-	-
PR10 – Information Disclos EP IV Principle 5 Stakehold EP IV – Principle 6 Grievan						
Stakeholder Engagement Plan	 Stakeholder Engagement Plan of BEE Corporate ESMS 	PC	 The following documents and activities are in place and shared with WSP: Corporate Stakeholder Engagement Plan of BEE, Corporate Social Impact Assessment and Stakeholder Communication Procedure of BEE, Social Information and Communication Procedure of BEE 	A Project-specific SEP in line with EBRD PR-10, IFC PS-1, EP-5 and EP-6 shall be prepared, or the existing Corporate SEP of BEE must be updated with Project-specific information, disclosed to all stakeholders, and shared on the Project website.	BEE	1.2



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
			 Stakeholder engagement activities conducted so far within the scope of Balabanlı WPP, Stakeholder Engagement Programme (including stakeholder identification list, methods, frequency, and engagement topics), Community Grievance Mechanism Procedure and Grievance Records. Stakeholder list, stakeholder engagement activities and field study conducted with local communities within the scope of the Balabanlı WPP Extension Project were included in the Project ESIA. The Project ESIA concluded that Balabanlı WPP has an existing SEP, and it will be applicable for the construction and operation phases of the Project. The Corporate SEP of BEE has been disclosed on the BEE website. 	Project specific SEP. Project specific SEP should be disclosed to all Project parties, to the local communities through the Mukhtar offices and Project website.		
Information Disclosure	 2009 EIA Report Project EIA Report 2013 ESIA Report 2017 ESIA Report Stakeholder Engagement Plan of BEE Corporate ESMS 	PC	EIA and ESIA prepared for the Balabanlı WPP, and Balabanlı WPP Extension Project had been disclosed to the public and available on the Project website. Project specific SEP has not been developed for the Project, yet. However, a Corporate SEP for all projects within BEE portfolio has been prepared. Project Non-Technical Summary has not been developed yet.		BEE	1.2 1.3 1.5
Meaningful Consultation	Stakeholder Engagement Plan of BEE Corporate ESMS	Neighbourhood Coffee House in Balabanlı Neighbourhood, Muratlı District, Tekirdağ Province on 13.02.2020. BEE maintains regular communication with local communities as part of the Balabanlı WPP initiative. This established communication is set to persist for the Project. Project specific SEP has not been developed for the Project, yet. However, a Corporate SEP of BEE portfolio has been prepared. As outlined in BEE's expropriation is required held with stakeholde land acquisition the Impacts on livelihood mitigated/compensate Any expropriation mu with Project Standard Provide transparent affected communities progress of land as		be disclosed to the stakeholders. As outlined in BEE's corporate ESAP, in case any expropriation is required, consultations should be held with stakeholders before the expropriation for land acquisition through voluntary negotiation. Impacts on livelihoods should be assessed and mitigated/compensated in a consultative manner. Any expropriation must be carried out in accordance with Project Standards and national legislation. Provide transparent and regular updates to the affected communities regarding the status and progress of land acquisition and expropriation process, fostering a transparent and communicative	BEE	1.3 5.1



Requirement	Available Information	Score	Comments/Issues Gaps Identified	Recommended Actions	Responsible Party	ESAP Reference
Community Grievance Mechanism	BEE Grievance Mechanism Procedure	PC	The Community Grievance Mechanism and Worker Grievance Mechanism are being implemented for the existing WPP. The Worker and Community Grievance Mechanisms, developed in line with international requirements, have been communicated to all stakeholders and Project employees and implemented starting from the construction phase of Balabanlı WPP. The Community Grievance Mechanism of the existing Balabanlı WPP will be applicable for the Project. Both the Mukhtars and the communities are well-informed about the Community Grievance Mechanism. They interact directly or through phone communication to address requests. BEE keeps records of all stakeholder engagement activities, grievances, and requests.	-	BEE	1.3



APPENDIX B

SITE PHOTOGRAPHS





View of T26 Location



View of T27 Location





Access Road to T28 Location





View of T28 Location



View of T29 Location





View of T30 Location



View of T31 Location





View of Existing Turbine Locations (T15-T17)



Fencing and Camera & Alarm System of the Existing Turbine Location (T25)





Existing Turbine Location (T12)





Entrance of the Operation Site (Office + Switchyard)



Switchyard





View of the existing ETL



Office Building





Security Booth



Waste Segregation at Office





Grievance Box in Office Building





Storage of Used Materials in the Open Area in front of the Operation Site



Storage of Used Materials in the Open Area in front of the Operation Site





Domestic Waste Bins



Material Storage Containers of Siemens





TWSA



Hazardous Waste Storage Container





Chemical Storage Container near TWSA





Chemical Storage Container near TWSA





Storage of Gas Cylinders in Recyclable Waste Container





Sump Pit of TWSA





Generator and Diesel Tank Area

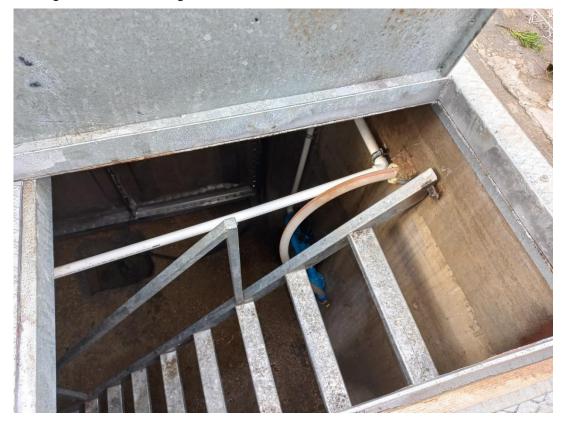


Septic Tank Area





Underground Water Storage Tank



Underground Water Storage Tank





Chemical Storage Cabinet in the Warehouse Room





Chemicals Stored in Warehouse Room without Secondary Containment



Battery Room





One of the unauthorized cabins close to the existing Balabanlı WPP turbines



One of the unauthorized cabins close to the existing Balabanlı WPP turbines





One of the unauthorized cabins close to the existing Balabanlı WPP turbines



One of the unauthorized cabins close to the existing Balabanlı WPP turbines





One of the unauthorized cabins close to the existing Balabanlı WPP turbines





One of the unauthorized cabins close to the existing Balabanlı WPP turbines

APPENDIX C

ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
PR1 - EP IV	- Assessment and Management of Environmental and Social Risks and Impacts - Assessment and Management of Environmental and Social Risks and Impacts - Principle 2: Environmental and Social Assessment - Principle 4: Environmental and Social Management System and Equator Principles Action Plan Implement ESAP fully.	Compliance with local	PS1	BEE, supported	During construction	Reports on implementation
	Monitor implementation of ESAP. Provide monitoring reports, on implementation progress of ESAP items. Provide information as it becomes available, on grievances and non-compliances. To ensure the successful implementation of all elements outlined in the ESDD report and ESAP, approval from the Lenders and their Independent Environmental and Social Consultant ("IESC") is required. Periodic monitoring studies will be carried out by the IESC for this purpose. Borusan ENBW Enerji ("BEE") is responsible for providing updated data to the IESC in a timely manner to facilitate a comprehensive assessment of the ESAP.	legislation, IFC PSs, EBRD PRs and EP IV. Resources to be made available for implementation.	PR1 EP IV – Principle 2 & 4	by external consultants, need to be ensure the allocation of resources for implementation.	and operation	progress ESAP implementation to commence prior to construction
1.2	Assess the corporate ESMS documentation to determine whether specific management plans are required for the Project, such as those for traffic and emergency response. Revise the identified management plans and make them project specific considering associated facilities and both construction and operation phases of the Project. For the others implement them for the Project. Define the Area of Influence ("Aol") or cross-verify the Aol as defined in the Environmental and Social Due Diligence ("ESDD") for environmental, biological, and social components taking into account the including Energy Transmission Line ("ETL"). Management plans and procedures should encompass the Aol of the relevant components they pertain to. Implement corporate ESMS documents across all its projects. The listed plans below will be revised on a project-specific basis. All other ESMS elements will be implemented for the existing Balabanlı WPP and Balabanlı WPP Extension Project, with customization achieved through the use of forms and instructions included in the plans. Stakeholder Engagement Plan; Emergency Response Plan ("ERP"); Traffic Management Plan; Risk Assessment; And Acquisition Plan; Lund Acquisition Plan; Eurol Resettlement Action Plan (if required).	Compliance with local legislation, IFC PSs, EBRD PRs and EP IV. Mitigation of the Project impacts within Aol. Efficient use of resources by focusing on Aol. Other liabilities and benefits associated with the Environmental and Social Management System ("ESMS"), as well as specific Environmental and Social Management Plans for addressing environmental, social, and health and safety risks of the Project.	PS1 PR1 EP IV – Principle 2 & 4	BEE, supported by external consultants	monitoring during construction and operation period.	Documentation for construction phase to be prepared before construction. Documentation for operation phase to be prepared before commissioning. Ongoing monitoring of the ESMS during all phases of the Project. Annual check for additional requirements or revisions. Reporting on implementation progress in the Annual Environmental and Social Report ("AESR").



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
1.3	A Corporate Stakeholder Engagement Plan ("SEP") for all projects within the BEE portfolio has been prepared. Prepare a Project-specific Stakeholder Engagement Plan in line with EBRD PR-10, IFC PS-1, EP-5 and EP-6 and disclose it to all related parties of the Project through the Mukhtar offices and the Project website. Disclose SEP on the Project website (or BEE website), maintain up-to-date information on the Project on the website. Include contact details for obtaining further information in the SEP. Disclose SEP in the local language(s) and in a manner that is accessible and culturally appropriate, considering any specific needs of groups. Keep stakeholders informed consistently, particularly in the event of any changes to the Project. Ensure SEP remains dynamic, updating stakeholders on any Project-related changes.	Establishing positive communication with surrounding communities, ensuring effective stakeholder engagement, and thereby safeguarding the assets. Improved public access to information related to the Project. Minimizing Project impacts by identification and mitigation of potential risks early on. Creating a foundation for ongoing collaboration and support, contributing to the Project's sustainability and long-term success.	PR 10 EP 5 EP 6	BEE	Preparation and implementation of SEP starting from the construction phase. Ongoing during construction and operation.	Project-specific SEP. Disclosure of SEP to stakeholders on the Project
1.4	Increase internal HSE & social capacity with staff with adequate qualifications, skills, and experience. Appoint an EHS/HSE manager as well as a Community Liaison Officer (CLO) for the management of social issues and coordinating the relations between the local communities and managing the external grievances. Appoint Human Resources ("HR") Representative to manage the labour related issues, such as workers' grievances, contracts, etc. Ensure work instructions prepared for the specific tasks and trainings to be delivered to employees before construction activities commence.	Enhanced management of ESMS. Reduced HSE & social risks, mitigation of HSE & social risk efficiently and in a timely manner. Improved health and safety performance and safe working environment for workforce (permanent & contract/contractor & subcontractor). Enhanced management and monitoring of the Project area and contractors. Compliance with national legislation and international standards.	PR 1 & 2 & 4 & 10 EP IV – Principle 2 & 4 & 5 & 6 National Legislation Good practice	BEE	Ongoing during construction and operation	Appointed staff with job descriptions, and clear definition of roles and responsibilities. Organisational Chart and Roles and Responsibilities for the Project.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
		Efficient stakeholder engagement, management of internal and external grievances.				
1.5	Disclose the Non-Technical Summary ("NTS") on the Project website (or BEE website) and maintain up-to-date information on the Project on the website and communicate it with the local communities. Inform stakeholders continuously especially when there is a change in the Project. Conduct an annual review (internal audit) to ensure that the NTS remains up to date. Disclose NTS in the local language(s) and in a manner that is accessible and culturally appropriate, considering any specific needs of groups.	Establishing positive communication with surrounding communities, ensuring effective stakeholder engagement, and thereby safeguarding the assets. Improved public access to information related to the Project.	PS 1 PR 10 EP 5 EP 6 Good Practice	BEE	NTS prepared and disclosed on website, prior to construction. Ongoing communication with local community. Revision every year if needed. Revision for operation phase.	Disclosure of NTS to stakeholders on the Project website (or BEE website), prior to construction. Record of revision if
1.6	Implement Corporate Permit Register Plan for the existing Balabanlı WPP and Balabanlı WPP Extension Project and both construction and operation phases of the Project. Follow permitting issues and maintain comprehensive records of permits, renewals, and revisions. Ensure the "EIA positive" decision is still valid for the new Project design prior to commencing construction. After official opinion from PDoEUCC received related to the Project revisions, ensure energy production licence revision made.	Compliance with local legislation, IFC PSs, EBRD PRs and EP IV.	PS1 PR1 EP IV – Principle 2 & 4	BEE	Permit register for the construction phase to be prepared prior to commencement of construction. Permit register to be reviewed monthly. Permit register for the operation phase to be prepared prior to commencement of operation.	



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
1.7	Conduct a comprehensive search to identify any existing or planned facility that could create any cumulative impact with both the Balabanli WPP and the Project activities. Perform a Cumulative Impact Assessment (CIA) to assess the physical, biological, and social impacts, including the existing operational activities, ETL and any identified facility, in conjunction with the proposed Project activities and following SNH Guidance "Assessing the cumulative impacts of onshore wind farms on birds" for general aspects: IFC's Good Practice Handbook "Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets"	Compliance with local legislation, IFC PSs, EBRD PRs and EP IV.	PS1 PR1 EP IV – Principle 2 & 4	BEE	Before construction phase	Completed cumulative impact assessment. Identified mitigation measures related to cumulative impact. Compliance with local legislation on IFC PSs, EBRD PRs and EP IV.
1.8	Conduct physical baseline studies to align with Project Standards and implement corporate Air Quality Management Plan, and Noise and Vibration Management Plan. This involves: Complete baseline air quality measurements (PM ₁₀ , PM _{2.5} , NO ₂ and SO ₂) at the closest sensitive receptors (at least Yenice, Deregündüzlü, Maksutlu, Balabanlı). Conduct Settled Dust measurements at three points (one at Maksutlu, one at Balabanlı and one in the area between T26, T27, and T28). Conducting 48 hours continuous baseline noise measurements (24 hours for weekend and 24 hours for weekday) with 12-15 minutes intervals, at the closest sensitive receptors. For details, please refer to the PS3 & PR3 section – Row 3.2 and 3.3	Refer to PS3 & PR3 section Row 3.2 and 3.3	-		-	
1.9	Conduct GHG emission calculations for the construction and operation phases of the Project and revise the Air Quality Management Plan to include mitigation measures in consideration with GHG emissions. Conduct Climate Change Risk Assessment for the Project in accordance with "Equator Principles Guidance Note On Climate Change Risk Assessment". ²⁴	Prevent and Mitigate impacts on air quality.	PS 1 & 3 PR 1 & 3	BEE, supported by external consultants, need to be ensure the allocation of resources for implementation	GHG emission calculations before construction Climate Change Risk Assessment Monitoring during operation as per the monitoring plan.	GHG emission calculations. Climate Change Risk Assessment Monitoring records.

²² guidance (nature.scot)

²⁴ https://equator-principles.com/app/uploads/Guidance-CCRA_May-2023.pdf



²³ <u>ifc-goodpracticehandbook-cumulativeimpactassessment.pdf</u>

No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
PR2	- Labor and Working Conditions - Labour and Working Conditions ′ – Principle 6 Grievance Mechanism					
2.1	Working Conditions and Management of Worker Relationship Implement BEE Corporate Human Resources Policy, Corporate Labour Management Plan and Equal Opportunities Plan developed in line with the requirements of the IFC PS 2, EBRD PR 2, Eps and national law. Develop relevant procedures under the labour management plan to address specific areas requiring clarification, such as working hours, worker's rights, wage policy, collective bargaining, responsibilities about the human resources processes specific to the Project. Communicate the human resources processes, working conditions and terms of employments with all employees. Define working conditions and terms of employment clearly in employees' contracts. Make certain that these policies or management plans are implemented by contractors and subcontractors. Establish OHS related plans (such as emergency response plan) (refer to item 1.2) In case of a need for workers' accommodations, follow the requirements in Workers' Accommodation: Processes and Standards, IFC and EBRD, Guidance Note, 2009. It/When Retrenchment is unavoidable for the Project, prepare and implement a Retrenchment Plan in line with Labour Law, EBRD PR 2, IFC PS 2 and IFC Good Practice Note: Managing Retrenchment. Guarantee prompt notice of dismissals and timely payment of severance, back pay, social security, and pension contributions, providing necessary evidence of payments. Implement the Worker Grievance Mechanism for the existing Balabanlı WPP and BEE Corporate Grievance Mechanism Procedure for the Project, starting from the pre-construction phase. Communicate the grievance mechanism with all Project employees. Ensure that the mechanism allows anonymous complaints and is transparent. Ensure that the grievance mechanism is sensitive to the needs of Gender-Based Violence and Harassment (GBVH) victims, ensuring their concerns are handled with the utmost care, confidentiality, and support.	Improved employer & worker relationship. Effective management of HR and workforce. Improved health and safety performance and safe working environment for workforce (permanent & contract/contractor & subcontractor). Promoting the fair treatment, non-discrimination, and equal opportunity of workers. Encouraging adherence to any collective agreements in which the Client is involved, national labour and employment laws and the fundamental principles and essential regulatory standards outlined in relevant ILO conventions that are integral to this association. Compliance with international standards.	PS 2 PR 2 EP 4 National Legislation Good practice	BEE supported by external consultants, need to be ensure the allocation of resources for implementation.	Prior to construction. Ongoing during construction and operation phases. Implementation and monitoring during construction period. The documents for the operation phase will be produced before commissioning.	Documented and implemented HR Policy, Labour Management Plan and Equal Opportunities Plan. Documented and implemented other relevant policies, procedures, plans and Worker Grievance Mechanism. Appointed HR Representative Organization Chart and Responsibilities for the Project Implemented Worker Grievance Mechanism Records of internal grievances and follow-up and resolutions. Compliance/audit/monitoring reports of both BEE and its subcontractors. Ongoing monitoring during construction and operation
	Document all grievances and keep grievance records.					phases. Records of monitoring.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
2.2	Protecting the Work Force Implement BEE Human Resources Policy, Supply Policy, Corporate Labour Management Plan and Equal Opportunities Plan developed in line with the requirements of the IFC PS 2, EBRD PR 2, Eps and national law. Commit to prohibiting use of child and forced labour in Project operations including the supply chain, and express BEE's commitment to these standards clearly. Ensure that children are not employed in any manner that is economically exploitative, hazardous, or detrimental to their education. Commit to abstaining from using forced labour, which encompasses any work or services extracted from individuals under the threat of force or penalty. Express this commitment in the relevant policies and management plans clearly. Implement the existing plans and procedures of BEE on supply chain and contractor/subcontractors to the Project considering both construction and operation phases of the Project. Apply EP4 (Environmental and Social Management System and Social Action Plan) systematically throughout the Project's lifecycle to effectively identify, mitigate, and eliminate any potential human rights risks stemming from the Project's operations. Formulate and implement a Human Rights Policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles.	Promoting the fair treatment, non-discrimination, and equal opportunity of workers. Preventing use of child and forced labour. Encouraging adherence to any collective agreements in which the Client is involved, national labour and employment laws and the fundamental principles and essential regulatory standards outlined in relevant ILO conventions that are integral to this association. Compliance with international standards.	PS 2 PR 2 EP 4 National Legislation Good practice	BEE	Prior to construction. Ongoing during construction and operation phases. Implementation and monitoring during construction period.	Documented and implemented HR Policy, Supply Policy, Human Rights Policy, Corporate Labour Management Plan and Equal Opportunities Plan. Documented and implemented other relevant policies, procedures, plans and Worker Grievance Mechanism. Records of internal grievances and follow-up and resolutions. Compliance/audit/monitoring reports of both BEE and its subcontractors. Ongoing monitoring during construction and operation phases. Records of monitoring.
2.3.	Occupational Health and Safety Ensure a safe and healthy workplace by considering sector-specific and location-specific risks, and threats to women. Identify potential life-threatening hazards to workers. Provide preventive and protective measures, including modifying or eliminating hazardous conditions. Provide training to workers on OHS. Document and report occupational accidents, diseases, and incidents. Develop and implement Emergency Response Plan ("ERP") and Risk Assessment in accordance with the "6331 numbered OHS Law" for the Project.	Improved health and safety performance and safe working environment for workforce (permanent & contract/contractor & subcontractor). Encouraging adherence to any collective agreements in which BEE is involved, national labour and employment laws and the fundamental principles and essential regulatory standards outlined in relevant ILO	10102	BEE, supported by external consultants, need to be ensure the allocation of resources for implementation.	Prior to construction. Ongoing during construction and operation phases Implementation and monitoring during construction period. The documents for the operation phase will be produced before	Documented and implemented relevant policies, procedures, plans and Grievance Mechanism. Records of internal grievances and follow-up and resolutions. Compliance/audit/monitoring reports of both BEE and its contractors/subcontractors. Ongoing monitoring during



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	Develop and implement project specific Traffic Management Plan, OHS Plan and Risk Assessment.	conventions that are integral to this association. Compliance with international standards such as IFC PSs, EBRD PRs and EP IV.			commissioning.	construction and operation phases. Records of monitoring.
2.4	Workers Engaged by Third Parties Ensure that third parties hiring contracted workers and adhere to a suitable Environmental and Social Management System (ESMS) (see item 1.2 for reference). Develop policies and procedures for managing and monitoring the performance of third-party employers in compliance with PS-2, PR-2 and EP-4. Guarantee that third-party employees have access to the Worker Grievance Mechanism. Implement BEE Corporate Human Resources Policy, Corporate Labour Management Plan and Equal Opportunities Plan developed in line with the requirements of the IFC PS 2, EBRD PR 2, Eps and national law. Apply EP4 (Environmental and Social Management System and Social Action Plan) systematically throughout the Project's lifecycle to effectively identify, mitigate, and eliminate any potential human rights risks stemming from the Project's operations. Formulate and implement a Human Rights Policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles.	Improved health and safety performance and safe working environment for workforce (permanent & contract/contractor & subcontractor). Promoting the fair treatment, non-discrimination, and equal opportunity of workers. Preventing use of child and forced labour. Encouraging adherence to any collective agreements in which the Client is involved, national labour and employment laws and the fundamental principles and essential regulatory standards outlined in relevant ILO conventions that are integral to this association. Compliance with international standards. Subcontractors' compliance with the Project Standards ensured.	PS 2 PR 2 EP 4 National Legislation Good practice	BEE	Prior to construction. Ongoing during construction and operation phases. Implementation and monitoring during construction period. The documents for the operation phase will be produced before commissioning.	Documented and implemented relevant policies, procedures, plans and Grievance Mechanism. Records of internal grievances and follow-up and resolutions. Compliance/audit/monitoring reports of both BEE and its subcontractors. Ongoing monitoring during construction and operation phases. Records of monitoring.
2.5	Supply Chain Ensure engagement with suppliers who comply with international supply chain requirements. Set a Project related supplier list and supplier evaluation criteria.	Promoting fair treatment, non-discrimination, and equal opportunity of workers. Preventing child and forced	PS 2 PR 2 EP 4	BEE	Prior to construction. Ongoing during construction and	Documented and implemented Supply Policy and Human Rights Policy. Documented and



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	For primary supply chains with high safety concerns, implement procedures and measures to ensure primary suppliers address life-threatening situations. Continuously monitor the primary supply chain for significant changes and any risks or incidents of use of child or forced labour. Apply EP IV systematically across the Project's lifecycle to identify and eliminate human rights risks for affected communities and supply chain workers. Formulate and implement a Human Rights policy in accordance with Guidance Note on Implementation of Human Rights Assessments Under the Equator Principles. Implement specific management strategies related to contractor and supply chain management. Implement the corporate supply chain and contractor management plans and procedures to the Project considering both construction and operation phases of the Project. Implement below listed corporate documentation for the Balabanli WPP and the Balabanli WPP Extension Project. Supply Chain and Procurement Policy Human Resource Policy Supplier Audits Procedure Contractor Audits Procedure Contractor Management Plan Supplier Code of Conduct	Encouraging adherence to any collective agreements in which the Client is involved, national labour and employment laws and the fundamental principles and essential regulatory standards outlined in relevant ILO conventions that are integral to this association.	Good Practice		operation phases. Implementation and monitoring during construction period. The documents for the operation phase will be produced before commissioning.	implemented other relevant policies, procedures, and plans. Compliance/audit/monitoring reports of both BEE, its subcontractors and the primary supply chain. Ongoing monitoring during construction and operation phases. Records of monitoring.
	- Resource Efficiency and Pollution Prevention - Resource Efficiency and Pollution Prevention and Control Implement corporate: ■ Health, Safety, Environment, and Energy Policy	Mitigation of the Project impacts within Aol.	PS 1 & 3	BEE, supported by external	Implementation and monitoring during	Ongoing monitoring during construction and operation
	 Pollution Prevention and Resource Efficiency Management Plan Waste Management Plan Wastewater Management Plan for the Balabanlı WPP and the WPP Extension Project. Identify, track and monitor Project's resource consumptions. 	Efficient use of resources by focusing on Aol. Compliance with local legislation, IFC PSs and EBRD PRs. Sion Project. Other liabilities and benefits		consultants, need to be ensure the allocation of resources for implementation.	construction and operation period.	phases. Records of monitoring in the monitoring reports. Resource consumption records.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
		Plans for addressing environmental, social, and health and safety risks of the Project.				
3.2	Complete baseline air quality measurements (PM ₁₀ , PM _{2.5} , Settled Dust, NO ₂ and SO ₂) at the closest sensitive receptors (at least Yenice, Deregündüzlü, Maksutlu, and Balabanlı) prior to the construction phase of the Project, by taking into consideration to the latest project design: PM ₁₀ and PM _{2.5} measurements – 24 hours continuously at each point Settled dust measurements at three points (one at Maksutlu, one at Balabanlı and one in the area between T26 T27 ve T28) – 2 months period NO ₂ and SO ₂ measurements (passive sampling) at the closest sensitive receptors – 2 months period Conduct air quality measurements at baseline locations/receptors, at least one time during the construction period (peak time). Conduct air quality measurements during the operation phase if any grievance from the stakeholder received. Conduct GHG emission calculations for the construction phase of the Project and revise the Air Quality Management Plan to include mitigation measures in consideration with GHG emissions. Revise and implement Air Quality Management Plan as part of project specific ESMS Management Plans and develop and implement mitigation measures and define specific actions if any non-compliance recorded as per the monitoring plan.	Prevent and Mitigate impacts on air quality.	PS 1 & 3 PR 1 & 3	BEE, supported by external consultants, need to be ensure the allocation of resources for implementation	Baseline air quality measurements before construction GHG emission calculations before construction Air quality measurements at the peak time of the construction Monitoring during operation as per the monitoring plan.	Completed baseline air quality measurements. GHG emission calculations. Air Quality Management Plan. Monitoring records. Records on grievances due to dust, non-compliances, mitigation and follow-up actions during construction and operation. Records of monitoring report.
3.3	Complete 48 hours continuous baseline noise measurements (24 hours for weekend and 24 hours for weekday) with 12-15 minutes intervals, at the closest sensitive receptors prior to the construction phase of the Project and assess the current noise situation of the Project against World Bank Group's EHS Guidelines, Noise Management by taking into consideration to the latest project design. Conduct operation phase noise modelling studies by taking into consideration to the latest project design and baseline noise measurements to be conducted. Conduct noise measurements at least one time at the baseline locations, during the construction period (peak time). Implement Noise and Vibration Management Plan considering both construction and operation phases.	Mitigate noise impacts on community, sensitive receptors.	PS 1 & 3 PR 1 & 3	BEE, supported by external consultants, need to be ensure the allocation of resources for implementation	Baseline noise measurements before construction Noise modelling study after baseline measurements Noise measurements at the peak time of the construction Monitoring during operation as per the monitoring plan.	measurements and operational noise modelling studies.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
3.4	Keep records of the official correspondences from the Municipality/Special Provincial Administration regarding to disposal of solid waste, wastewater, hazardous waste and medical waste for construction and operation, and confirmation regarding to existing capacities of the relevant waste services. Keep records related to waste disposal (contracts, official correspondences, waste forms, etc.) Contract with licenced companies for waste disposal.	Reduced environmental risks, mitigation of environmental risk efficiently and in a timely manner. Increased management and monitoring of the Project Area and contractors.	PS 1 & 3 PR 1 & 3	BEE	Prior to and during the construction and operation	Correspondence with the authorities Evidence documentation for permits and licenses
	– Community Health, Safety, and Security – Health, Safety and Security					
4.1	Implement corporate Health, Safety, Environment and Energy Policy, Community Health and Safety Management Plan, HSE Communication Procedure, Security Management Plan, Emergency Management Procedure for the Balabanlı WPP and the WPP Extension Project. Revise and implement corporate Traffic Management Plan for the Balabanlı WPP and the WPP Extension Project. Develop and implement ERP and Risk Assessment (covering Community health and safety concerns) in accordance with the "6331 numbered OHS Law". Conduct a Shadow Flicker Assessment, including all the existing turbines and new turbines to be installed (31 turbines). Conduct a Blade/Ice Throw Assessment for the existing turbines that covers any unauthorized cabins within its setback distances. Conduct a cumulative Visual Impact Assessment covering both the existing turbines of the Balabanlı WPP and those to be installed within the Project's scope. Continuous monitoring of safety performance. Since security personnel will be engaged, assess and manage risks and impacts following IFC's Good Practice Handboo on the Use of Security Forces (February 2017) and the Voluntary Principles on Security and Human Rights Although corporate Security Management Plan will be implemented for the Project, Project specific "Security Plan" identifying the number of security personnel, working shifts, areas of responsibility will be asked from security firm to be contracted.	Management and mitigation of community H&S risks. Compliance with national legislation and international standards. Reduction/prevention of incidents/accidents. Improved safety performance. Ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities.	PS 1 & 4 PR 1 & 4 EP IV – Principle 2 & 4	BEE, supported by external consultants, need to be ensure the allocation of resources for implementation	construction and operation period.	See item 1.2 for the preparation of the Project-specific management plans. Completed Blade/Ice Throw Assessment and Shadow Flicker Assessment. Conducted cumulative Visual Impact Assessment. Conducted engagement and consultation with the residents / landowners of the unauthorized cabins regarding potential risks hazards. Completed Project Security Plan Monitoring records. Ongoing monitoring during construction and operation phases.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	 Land Acquisition and Involuntary Resettlement Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement 					
5.1	Land Acquisition: Implement the Corporate Land Acquisition Plan of BEE. Consult with stakeholders before the expropriation for land acquisition through voluntary negotiation. Assess the impacts on livelihoods mitigated/compensated in a consultative manner. Incorporate stakeholder feedback to enhance mitigation strategies. Ensure responsible and sustainable practices for managing land acquisition process addressing the needs and concerns of landowners / land users. Carry out any expropriation in accordance with national legislation and international standards. Provide transparent and regular updates on the land acquisition and expropriation process to affected communities. Considering the mobile beekeepers present in Çevrimkaya, Maksutlu, Deregündüzlü, and Yenice neighbourhoods, conduct further engagement with the beekeepers. If required, provide compensation for any production loss as per the requirements stated in the corporate Livelihood Restoration Plan. Develop and implement Project Specific Land Acquisition Plan and Livelihood Restoration Plan in compliance with IFC PS5. Continuously engage with stakeholders regarding the loss of pasture land, and in the event of any grievances or opinions raised on this matter, implement the Livelihood Restoration Plan.	Compliance with national legislation and international standards. Commitment to responsible and sustainable practices for managing pasturelands. Emphasized community involvement in decision-making processes regarding land acquisition. Enhanced management and mitigation of social and environmental risks. Proper legal acquisition, ongoing monitoring, and assessment of activities. Fostering responsible land acquisition practices and sustainable community engagement.	PS 5 PR 5 EP 4 EP 5 EP 6 Good Practice	BEE	Before construction phase During construction and operation phases	Ensuring thorough documentation and legal clarity throughout the expropriation of agricultural lands, securing all necessary rights and permissions for the acquisition process. Developed Land Acquisition Plan and Livelihood Restoration Plan. Monitoring and assessing the economic utilization of agricultural lands by local communities, particularly focusing on livelihoods dependent on these lands for cultivation and farming activities. Monitoring and assessing beekeeping activities conducted by mobile beekeepers in proximity to the Project area, recognizing its significance as a livelihood source for affected communities.
5.2	Involuntary Resettlement: There will be no resettlement or involuntary physical displacement for the Project. During the site visit, it was noted that several unauthorized cabins (most of which has no infrastructure such as electricity, water, wastewater etc) had been constructed in close proximity to existing turbine locations. Engage with residents / landowners of the unauthorized cabins to provide information about potential impacts (e.g. noise, shadow flicker, ice/blade throw), which involves communicating details regarding potential risks and their probable effects.	Compliance with national legislation and international standards. Enhanced management and mitigation of social and environmental and OHS risks.	PR 5 EP 4 EP 5	BEE	Before construction phase Monitoring - during construction and operation phases	Records of the engagement activities Ongoing monitoring during construction and operation phases. Records of external grievances and follow-up and resolutions.



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	Engage in discussions with the Muratli Municipality regarding the unauthorized cabins in the area. The Muratli Municipality holds the responsibility for demolishing these cabins. Monitor the impacts on these sites and consistently provide updated information to ensure awareness and encourage necessary actions. Monitored noise impact through monthly measurements during the summer period throughout the first year of operation. Monitor Ice throw risk reviewing SCADA results, analysing meteorological data recorded at the Balabanli WPP, and conducting visual observations during the period between December and March. Engage with them concerning their experience with shadow-flicker throughout the first year of operation. They will also be informed about the Project Grievance Mechanism, allowing them to convey any grievances related to shadow-flicker impacts. Engage with residents and landowners in the social impact assessment process as part of the ESIA for the Balabanli WPP. Biodiversity Conservation and Sustainable Management of Living Natural Resources Biodiversity Conservation and Sustainable Management of Living Natural Resources					
6.1	Conduct fauna surveys especially focusing on the priority biodiversity features ²⁵ identified through previous fauna surveys within amphibian and reptile categories particularly focusing reptiles and tortoise species. Specifically, field surveys should be undertaken to assess the presence of small mammals, including bats, as well as large mammals, reptiles, and amphibians. These detailed studies will contribute to a more thorough understanding of the ecological dynamics and conservation needs of these important species. Initiate pre-construction survey programs specifically for tortoise species under the guidance of an authorized fauna expert for the Balabanli WPP Extension Project. Site clearance procedures must be ensured before commencing any earthwork associated with the construction, thereby safeguarding identified tortoise species and adhering to environmental conservation practices. Conduct flora studies in flowering period of the Project Area.	and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project.	PS 6 PR 6 EP IV	BEE, with support from external consultants		Completed flora & fauna baseline studies Pre-construction survey program Identification of future monitoring requirements. Ongoing monitoring during construction and operation phases. Records of monitoring report
6.2	Conduct the monthly bird monitoring studies following SNH Guidelines (<u>Background and Purpose (nature.scot)</u> between March and June for Balabanlı WPP Extension Project. This extended monitoring period should align with the previously mentioned recommendations, emphasizing the need to verify vantage point coverage of the site. Following the next bird monitoring study, the results should be evaluated in accordance with SNH guidelines. Subsequently, an assessment of the necessity for extended monitoring until December, spanning a full year, should be conducted. This extended monitoring period should align with the previously mentioned recommendations, emphasizing the need to verify vantage point coverage of the site. Ensure bird monitoring studies adequately covered both spring and autumn migration period.	and Living Natural Resources through the implementation of the mitigation hierarchy to	PR 6		bat surveys between March and June For monitoring -	Completed bird and bat monitoring studies. Nest survey for the Aquila heliaca and Eastern Imperial Eagle. Updated collusion risk analysis.

²⁵ Priority biodiversity features are a sub-set of biodiversity that is irreplaceable or vulnerable, but at a lower priority level than critical habitats as defined in EBRD PR 6.

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No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	Following the next bird monitoring study, evaluate the results in accordance with Scottish Natural Heritage Guideline. Subsequently, an assessment of the necessity for extended monitoring until December, spanning a full year, should be conducted. Conduct bat monitoring align with the recommendations in ESDD and accord with Rodrigues, L. (2015) ²⁶ in order to be considered to be EBRD PR6 / IFC PS6 guideline compliant for the purposes of international funding monitoring following Eurobats guidelines (EUROBATS 6 wind turbines engl web neu.pdf) The nest sites of the Aquila heliaca and nests of the Eastern Imperial Eagle should be identified and monitored. The monitoring programme should include an adaptive management component and inform the need for additional or modified mitigation measures to avoid and/or reduce, or at a last resort offset/compensate for, impacts to birds and bats. Update the collision risk analysis after additional bird and bat surveys conducted for the Balabanlı WPP Extension Project. Implement habitat management and maintenance practices at the site level to reduce the risk of attracting collision-prone birds such as avoiding establishing ponds or waste sites within the development. Turbines and infrastructures will not offer perching or breeding opportunities for birds.					Identification of future monitoring requirements. Ongoing monitoring during construction and operation phases. Records of monitoring report
6.3	Conduct Natural Habitat Assessment and Critical Habitat Assessment as part of a comprehensive baseline study following Guidance Note on PS6 (June 27, 2019) GN56 sqq." <i>Determination of Critical Habitat</i> " and develop detailed habitat map of the Project. While conducting critical habitat assessment, above mentioned additional studies, defined mitigation measures should be taken into consideration.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project.	PS 6 PR 6 EP IV	BEE, with support from external consultants	Before construction for an initial assessment Revised CHA after baseline surveys	Completed Natural Habitat Assessment and Critical Habitat Assessment. Ongoing monitoring during construction and operation phases.
6.4	Perform invasive species inventory survey for the Project Site and develop monitoring program for invasive species. Develop and implement project-specific invasive species management and monitoring plan before construction.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project.	PR 6	BEE, with support from external consultants	Assessment during baseline Invasive species management and monitoring plan – before construction	Completed invasive species inventory survey. Invasive species management and monitoring plan. Ongoing monitoring during construction and operation phases.
6.5	Develop and implement a comprehensive Biodiversity Management Plan ("BMP") following GN50 for IFC PS6 (2019) for both the construction and operation phases and covering both existing Balabanlı WPP and Balabanlı WPP Extension Project based on the result of the additionally baseline studies and impact assessment including appropriate and site-specific mitigation and monitoring measure.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to	PS 6 PR 6	BEE, with support from external	Draft BMP - Pre construction (First draft 30 days before	-

²⁶ Rodrigues, L. (2015) Guidelines for consideration of bats in wind farm projects, Revision 2014. EUROBATS. ISBN 978-92-95058-30-9 (printed version) ISBN 978-92-95058-31-6 (electronic version: s. FN x above)



No.	Action	Environmental & Social Risks (Liability/Benefits)	Requirement (Legislative, IFC PSs, EBRD PRs, EP IV, Good Practice)	Resources, Investment Needs, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
	BMP should define parties responsible for an action, monitoring and/or verification requirements of an action, and an implementation schedule or frequency for an action. The BMP is an operational tool for site managers and contractors, with focus on on-site mitigation measures and it is an element of the ESMS. While developing BMP, above mentioned additional studies, defined mitigation measures should be taken into consideration. The BMP should inform the need for additional or modified mitigation measures to avoid and/or reduce, or at a last resort offset/compensate for, impacts to birds and bats.	minimize/offset direct and indirect impacts of the Project. For all projects that have the potential to significantly convert or degrade natural habitats and for projects in critical habitats, these biodiversity actions should be captured in a single dedicated BMP.	EP IV SNH EUROBAT	consultants	construction commences) Revised BMP after baseline surveys Final, agreed version prior to construction	BMP developed and agreed by the lenders and their IESC.
6.6	Perform an evaluation of the need for a Biodiversity Action Plan ("BAP"), following the additionally biological surveys and Critical Habitat Assessment ("CHA") and Natural Habitat Assessment ("NHA"). The BAP will need to contain measures to ensure that a no net-loss of Priority Biodiversity Features and a net-gain of Critical Habitat is achieved through the application of the mitigation hierarchy. The BAP should follow the requirements in GN50 for IFC PS6 (2019). As a living document BAP will be due for revisions and updates as the Project proceeds, allowing to reflect any additional measures required to be taken for conservation of habitats and species. BAP will be developed as a plan that clearly identifies the responsible parties that will be in charge of the updating the BAP, that will have the responsibility to determine if additional measure is needed. The BAP will be developed to detail monitoring and auditing requirements throughout the Project lifespan. While developing BAP, above mentioned additional studies, defined mitigation measures should be taken into consideration.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project.	PR 6	BEE, with support from external consultants	- Pre construction If needed development of BAP	Documented and implemented BAP for construction and operation phases (if needed). Ongoing monitoring BAP implementation during construction and operation phases. Records of monitoring in the monitoring report
6.7	Conduct carcass survey based on the "Post-Construction Bird And Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool". This assessment should adhere to best practices, involving the systematic search and collection of carcasses, followed by a detailed species assessment. It must be applied to the whole WPP and the ETL ²⁷ . A carcass removal study will assess the impact of scavengers (dogs, foxes, jackals, corvids, raptors, etc) and an observer detection rate assessment will evaluate the searcher accuracy. These studies are required to calculate the actual number of casualties of the existing turbines. This assessment should adhere to best practices, involving the systematic search and collection of carcasses, followed by a detailed species assessment. Conduct accurate statistical analysis of the data gathered in order to refine the understanding of the use of the airspace by bats within the wind farms, including correlations with key meteorological parameters (wind speed, temperature, humidity and precipitation).	and Living Natural Resources through the implementation of	PR 6 EP IV	_	During operation phase	Completed carcass survey Identification of future monitoring requirements. Records of monitoring report.

²⁷ See PCFM Good Practice Handbook for instructions to conduct PCFM at ETL projects



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6.8	In line with the impact control approach, the need for an active turbine management strategy, including the development of a shut-down-on-demand protocol to ensure risks are mitigated associated with the turbines leading to injury or mortality of bird species, will be assessed based on the outcome of additional field surveys and updated risk assessment during the post-construction phase. The performance of the active turbine management strategy will be verified through field monitoring data. If deemed necessary following additional surveys, the need of the development of the shut-down protocol outlining the criteria and procedures for making shut-down decisions by the Independent Ornithological Expert (IOE), will be discussed with Lenders and Lenders' advisor. Wind turbines will be shut-down upon receiving a written Notice to Close from the IOE. Information regarding these occurrences will be relayed to the Lenders within three days.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project. In order to reduce the risk of bird collisions, the wind farm will be shut down in the case of risk of bird collision.	PS 6 PR 6 EP IV SNH EUROBAT	BEE, with support from external consultants	Shut-down protocol – if needed after additional baseline studies and before commissioning During operation phase	Developed shut-down protocol, if needed IOE Appointed, if shut-down protocol developed Report on number of turbines and hours shut down in annual report to Lenders.		
6.9	Conduct fatality monitoring for covering both existing Balabanlı WPP and Balabanlı WPP Extension Project and ETL based on Post-Construction Bird and Bat Fatality Monitoring For Onshore Wind Energy Facilities In Emerging Market Countries Good Practice Handbook And Decision Support Tool. Evaluate the technical viability of implementing the nacelle monitoring system for both existing Balabanlı WPP Turbines and Balabanlı WPP Extension Project with consulting the turbine supplier. Confirm the feasibility of utilizing the nacelle system for monitoring purposes. If the nacelle system proves to be technically unfeasible, alternative measures such as ultrasonic sound recording devices should be used to identify bat species during the breeding periods in spring, summer, and fall.	Conservation of Biodiversity and Living Natural Resources through the implementation of the mitigation hierarchy to minimize/offset direct and indirect impacts of the Project.	PS 6 PR 6 EP IV SNH EUROBAT	BEE, with support from external consultants	During operation phase – first 2 years of the operation	Completed fatality monitoring Completed ultrasonic monitoring for BAT species. Records of monitoring report.		
PS7 - Indigenous Peoples PR7 - Indigenous Peoples There are not any indigenous people determined in Türkiye, hence, PS7 and PR7 are not applicable for the Project.								
PS8 - Cultural Heritage PR8 - Cultural Heritage								
8.1	Implement and monitor corporate Cultural Heritage Management Plan including Chance Finds Procedure. Employees to be trained on what to do in case of chance finding any archaeological finding on site.	Management of cultural heritage risks through proper planning and training	PS 8 PR 8 National Legislation	BEE	Trainings prior to construction phase. Chance Find Procedure implementation and monitoring during construction period. Monitoring during operation as per the monitoring plan.	Trainings delivered, training records. Ongoing monitoring during construction and operation phases. Records of monitoring report.		



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PR9	- Financial Intermediaries							
This title has not been evaluated since there is no financial intermediaries for the Project.								
PR10 - Information Disclosure and Stakeholder Engagement EP IV Principle 5 Stakeholder Engagement EP IV - Principle 6 Grievance Mechanism								
10.1	Stakeholder Engagement and Meaningful Consultation	Establishing positive	PS 1	BEE	Preparation and	Prepared and implemented		
	Engage stakeholders meaningfully through open dialogue and active participation and maintain ongoing communication.	communication and effective stakeholder engagement,	PR 10		implementation of SEP starting from the construction phase.	Project-specific SEP. SEP disclosed in BEE's website.		
	Facilitate transparent and inclusive consultations with stakeholders at all Project stages.	strengthening relationships with the community.	EP 5 EP 6					
	Regularly update stakeholders on any Project changes.	Improved public access to			Ongoing during construction and	Monitoring of the		
	Implement Corporate Social Responsibility and Community Development Plan for the Project.	information related to the	information related to the	Good practice		operation phases.	effectiveness of stakeholder engagement through	
	Document and monitor all BEE Social Responsibility Projects.	Project.				feedback mechanisms and		
	Adhere to BEE's corporate ESAP by consulting stakeholders before any land acquisition, mitigating impacts on livelihoods and executing expropriation in line with Project Standards and national legislation.	Minimizing Project impacts by identification and mitigation of				participation levels. Documented stakeholder		
	Provide transparent and regular updates to the affected communities regarding the status and progress of land acquisition and expropriation process, fostering a transparent and communicative approach.	potential risks early on. Creating a foundation for ongoing collaboration and support, contributing to the Project's sustainability and long-term success.				engagement and consultation activities. Documentation and monitoring of Corporate Social Responsibility Projects. Records of external grievances and follow-up and resolutions.		
10.2	Community Grievance Mechanism	Establishing positive	PS 1	BEE	Implementation of	Implemented Community		
	Implement the Community Grievance Mechanism of the existing Balabanlı WPP for the Project, starting from the pre-construction phase.	communication and effective stakeholder engagement,	PR 10		grievance mechanism during	Grievance Mechanism.		
	Implement the Corporate Grievance Mechanism Procedure of BEE.	stakeholder engagement, strengthening relationships	EP 5		pre-construction	Grievance mechanism made accessible physically to the		
	Communicate this mechanism to all stakeholders. Provide physical access mechanisms for local communities on sites, such as boxes,	with the community.	EP 6		phase.	local communities.		
	copies of forms, and information documents, at accessible places. Ensure the mechanism allows for anonymous complaints and transparency.	Minimizing Project impacts by identification and mitigation of potential risks early on.	Good practice			Records of external grievances and follow-up and resolutions.		
	Document all grievances and maintain grievance records.	potential risks early UII.			ορειαιίοπ.	Ongoing monitoring during construction and operation		



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		Ensuring inclusivity in decision-making and problem-				phases.
		solving processes.				Records of monitoring.
		Creating a foundation for ongoing collaboration and				
		support, contributing to the				
		Project's sustainability and long-term success.				
		Creating a preventive				
		measure against conflicts by addressing grievances				
		promptly, reducing tensions,				
		and fostering a harmonious relationship between the				
		Project and the communities.				



APPENDIX D

REVIEWED DOCUMENTS



General

- Technical Specifications of the Nordex Type WTGs
- Project Schedule
- Organization Chart of the Balabanlı WPP
- Project Coordinates and KMZ File
- Presentations of the Blaabanlı WPP and the Project
- Documents and KMZ File of the ETL
- KMZ File of the access roads
- Land Acquisition spreadsheet and presentation
- Permits and letters obtained for the Balabanlı WPP and the Project
- Internal Audit Reports
- BEE's corporate ESMS documentation
- IMS Certifications
- Employee information of the Balabanlı WPP
- Shift Information for the Balabanlı WPP
- Resource consumption spreadsheet for the Balabanlı WPP
- Agreement copies for the water, wastewater, and domestic waste

Environmental

- 2009 EIA Report
- Project EIA Report
- 2013 ESIA Report
- 2017 ESIA Report
- Opinion letters obtained from institutions during the EIA processes
- Biodiversity Reports prepared so far
- 2022 Annual Report of BEE
- Environmental training records
- Environmental accident records
- Drill records
- Waste disposal agreements and declaration records
- Water and wastewater agreements and disposal records



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Information on air quality and noise measurements

Social

- Corporate Stakeholder Engagement Plan of BEE,
- Corporate Social Impact Assessment and Stakeholder Communication Procedure of BEE,
- Social Information and Communication Procedure of BEE
- Stakeholder engagement activities conducted so far within the scope of Balabanlı WPP,
- Stakeholder Engagement Programme (including stakeholder identification list, methods, frequency, and engagement topics),
- Community Grievance Mechanism Procedure and Grievance Records.
- BEE Social Projects Evaluation Tool
- BEE Corporate Social Media Policy Implementation Principle

OHS

- Contract with Artı OSGB
- Contract with Securitas
- Risk assessment documents
- Emergency Management Plan
- List of emergency teams
- 2023 annual training plan
- 2023 training records
- 2023 annual work plan
- 2022 annual assessment report
- Appointment letters for Environmental and OHS representatives
- Emergency drill records
- OHS Identification and Suggestion Book
- Visitor&vehicle records spreadsheet
- Health examination records
- List of OHS Instructions of BEE
- Equipment control forms
- Chemical database spreadsheet used in Balabanlı WPP
- Accident/incident list
- Work permit forms



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- CPA tracking spreadsheet
- Subcontractor documents including vocational certifications, risk assessments, ERPs, annual work plans, etc.
- Industrial hygiene measurement report for noise, dated 2016





Sınıflandırma: Genel Classification: Public