TÜRKİYE PUBLIC AND MUNICIPAL RENEWABLE ENERGY PROJECT (PUMREP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project of Afyonkarahisar Municipality

March, 2025

Document History

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This Environmental and Social Management Plan has been prepared by Ardea Energy Engineering and Consulting on behalf of Afyonkarahisar Municipality within the scope of Türkiye Public and Municipal Renewable Energy Project (PUMREP) supported by the World Bank (WB) with ILBANK as the financial intermediary.

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Abbreviations

CIMER	Cumhurbaşkanlığı İletişim Merkezi (Presidential Communication Center)
CSR	Corporate Social Responsibility
DG	Directorate General
E&S	Environmental and Social
EHS	Environmental, Health and Safety
EHSG	Environmental, Health and Safety Guidelines
EIA	Environmental Impact Assessment
E&S	Environmental and Social
ESA	Environmental and Social Assessment
ESAP	Environmental and Social Action Plan
ESF	Environmental and Social Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standards
ESP	Environmental and Social Policy
ETL	Energy Transmission Line
EU	European Union
GBV	Gender-Based Violence
GFI	Ground Fault Interrupter
GIIP	Good International Industry Practice
GM	Grievance Mechanism
HS	Health and Safety
IFIs	International Financial Institutions
IFC	International Finance Corporation
ILBANK	İller Bankası A.Ş.
ICSC	International Chemical Safety Cards
KPI	Key Performance Indicator
kWe	Kilo Watt Electric
kWh	Kilo Watt Hour
kWp	Kilo Watt Peak
LEL	Lower Explosive Limit
LMP	Laber Management Plan
MSDS	Materials Safety Data Sheets
MoEUCC	Ministry of Environment, Urbanization and Climate Change
OG	Official Gazette
OHS	Occupational Health and Safety
OEDAŞ	Osmangazi Electricity Distribution
PAP	Project Affected Parties
PIU	Project Implementation Unit
PPE	Personal Protective Equipment
PUMREP	Public and Municipal Renewable Energy Project
RD	Regional Directorate
RE	Renewable Energy
SDS	Safety Data Sheets
SEP	Stakeholder Engagement Plan
Subproject	3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project of Afyonkarahisar Municipality
WB	World Bank

Glossary of Terms

Associated facilities	Facilities or activities that are not funded as part of the Subproject and are: (a) directly and significantly related to the project; (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. For facilities or activities to be Associated Facilities, they must meet all three criteria.
Contractor	A person or organization providing services to an employer at the client worksite in accordance with agreed specifications, terms and conditions.
Excavated material	Materials/soils that are generated as a result of excavation and other similar activities carried out prior to construction
Legally protected area	Designated terrestrial, aquatic or marine ecosystems managed under the related legislation to protect and sustain the biodiversity features, natural and associated cultural resources. Legally protected areas of Türkiye include a diversity of natural ecosystems and associated features ranging from coastal zones to mountains, deltas, forests, plains, steppe, lakes, river systems, deep valleys, canyons, and glaciers.
Material borrow site	Sites, where loose material containing gravel, sand, silt, and clay, which is formed by the natural and geological processes of rock fracturing, fragmentation, alteration, transportation, and/or in-situ sedimentation, and which has the characteristics of slope debris, are extracted to be used as fill material.
Off-site accommodation	Accommodation of workers at hotels, rented housing, etc. available in the vicinity of Subproject area.
On-site accommodation	Accommodation of workers at temporary exploration camps, construction camps, dormitories, etc. established for the Subproject on site.
Risk	A combination of the likelihood of an occurrence of a hazardous event and the severity of injury or damage to the health of people caused by this event.
Topsoil	Part of soil that provides organic and inorganic materials, air and water required for vegetative growth, and is required to be stored separate from the subsoil.

EXECUTIVE SUMMARY

The Public and Municipal Renewable Energy Project (PUMREP), financed by the World Bank (WB) with İller Bankası A.Ş. (ILBANK) as the Financial Intermediary (FI), marks a significant step towards sustainable energy solutions and enhanced energy security for the public sector in Türkiye. The primary objectives of the PUMREP include scaling up renewable energy use in public sector buildings and municipalities, reducing energy bills, and demonstrating leadership in the public sector's commitment to sustainable energy solutions and climate mitigation. The project to be financed under PUMREP includes the generating approximately 4,940,051 kWh of electricity annually, which is enough to supply power to over 23,368 households. Throughout its 30-year operational lifespan, the project is expected to save the municipality more than EUR 73,03 million in energy costs and prevent the release of more than CO_2 emissions by over 5,954 tons annually.

The project site is located in the Inaz neighborhood of the central district, which is a part of Afyonkarahisar province in Türkiye. The solar power plant project is a part of Türkiye's ambitious plan to increase the share of renewable energy sources in the country's energy mix. The project site is located on a 23-hectare land allocated by Afyonkarahisar Municipality. The solar panels used in the project are of high quality and have a lifespan of 30 years. The project was designed and constructed by a team of experienced engineers and technicians. The project developer has ensured that the project adheres to international standards of quality and safety. The plant is equipped with state-of-the-art technology, including inverters, transformers, and monitoring systems. The plant is connected to the national grid which will been constructed as a part of the project.

The sub-project, which is included in the Annex-2 List of the Environmental Impact Assessment Regulation which was published in the Official Gazette dated 25.11.2014 and numbered 29186, was examined and evaluated, and the measures foreseen to be taken against environmental impacts in the Project Identification Document were deemed sufficient. In addition, since it was determined that there was no need to prepare an EIA Report, the Afyonkarahisar Governorship decided that “Environmental Impact Assessment is Not Required” for the said project in accordance with Article 17 of the EIA Regulation as seen in the Annex B.1.

The Sub-Project will be tendered as a “Design, Supply, and Installation” project. In this type of tender, the selected contractor is responsible for developing the detailed design as part of their contractual obligations. This process includes integrating ESMP measures

into the design. Hence, specific layout and design details will be developed and finalized during the implementation phase of the project. This approach ensures that ESMP measures are integrated early in the design phase, alongside the development of the specific layout and design details. This early integration of ESMP measures is advantageous as it allows for a more cohesive and thorough incorporation of environmental and social considerations from the outset of the sub-project. ESMP for the Sub-project outlines the measures to mitigate any potential environmental and social impacts throughout the sub-project lifecycle. This plan is essential for ensuring that the projects adhere to national and international environmental regulations and social safeguards.

The Sub-Project is not only pivotal in supporting Türkiye's renewable energy targets but also in setting a precedent for sustainable energy practices within the public sector. The comprehensive ESMP ensures that all environmental and social considerations are meticulously managed, paving the way for a cleaner and more sustainable future.

In addition to the environmental and social benefits, the Sub- Project is anticipated to have significant economic and operational advantages. By harnessing solar energy, the projects will enable substantial cost savings in energy expenses for public facilities, including administrative buildings, water supply and treatment facilities, and public lighting. This reduction in operational costs will allow the municipality to allocate resources more efficiently towards other essential services and infrastructure development, thereby improving the overall quality of life for residents. Furthermore, the Sub-Project will generate local employment opportunities during both the construction and operational phases, fostering economic growth and supporting community development.

This ESMP is based on an assessment of potential impacts and risks that may arise during pre-construction, construction, operation, and decommissioning stages of the project and proposes appropriate mitigation measures to effectively address these impacts and risks. The implementation of the ESMP will be further strengthened through the use of the Stakeholder Engagement Plan (SEP). The SEP will facilitate ongoing communication and collaboration with affected communities, ensuring their concerns and inputs are considered throughout the project lifecycle. This proactive engagement will help address any environmental and social impacts promptly, enhance transparency, and build trust with stakeholders. By integrating the SEP with the ESMP, the project will ensure that all environmental and social management measures are effectively implemented and

continuously monitored, thereby promoting sustainable outcomes and mitigating potential issues.

1. INTRODUCTION

1.1. Background

The Public and Municipal Renewable Energy Project (PUMREP) (hereinafter referred to as "the **Project**") aims to increase the use of renewable energy through self-generation in public facilities. The Project will contribute to expanding the distributed RE market in public facilities help demonstrate leadership in the public sector to use sustainable energy solutions to deliver on the country's climate mitigation commitment and enhance energy security.

The PUMREP is financed by World Bank (WB) to support introducing RE technologies in municipalities. İller Bankası A.Ş. Department of International Relations (ILBANK) acts as the Financial Intermediary (FI). The project will be implemented through 4 components:

Component 1: Renewable energy investments in central government facilities

Component 2: Renewable energy investments in municipalities

Component 3: Technical assistance and project implementation support

Component 4: Contingent Emergency Response Component (CERC).

Afyonkarahisar Municipality (hereinafter referred to as "the **Sub-borrower"**) has applied to ILBANK for sub-financing of 3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project (herein after referred to as "the **Subproject**") under **Component 2**. The Subproject is located in insert Afyonkarahisar Province, Central District, İnaz Neighborhood.

ILBANK has established an **Environmental and Social Management System (ESMS)** effective on **24th of Dec 2023**. The ESMS is aligned with the requirements of World Bank (WB) Environmental and Social Framework (ESF, 2018) including Environmental and Social Standards (ESSs) forming part of the ESF, and E&S polices and standards of other International Financial Institutions (IFIs) ILBANK collaborates with. It will be applicable to all ILBANK projects and Subproject financed through International Financial Institutions (IFIs).

The ESMS is aimed at ensuring systematic identification, assessment, management, monitoring, and reporting of the environmental and social (E&S) risks and impacts of the **projects and Subproject financed by the International Finance Institutions (IFIs)**. This process will be implemented on an ongoing basis throughout their loan duration in line with the requirements of the national legislation, international agreements and conventions ratified by Türkiye and E&S standards of lending **IFIs** (World Bank for the

PUMREP). As a critical element of the ESMS, ILBANK has adopted and published an **E&S Policy**[1] applicable to all ILBANK projects and Subproject financed through IFIs.

Within the scope of the ILBANK's ESMS and World Bank Environmental and Social Framework (ESF), Subproject are classified as High Risk, Substantial Risk, Moderate Risk or Low Risk taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the Subproject; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the sub-borrower; and other relevant areas of risks that may result in unintended impacts.

ILBANK considers financing the Subproject under the PUMREP. In line with the ESMS, ILBANK carried out an E&S screening and risk classification of the Subproject and rated the activity as having "**Moderate**" E&S risk. The Sub-borrower has retained a third-party consultancy company for the preparation of the E&S instruments required as per the E&S risk category assigned to the Subproject.

This **Environmental and Social Management Plan** (ESMP) has been prepared by Ardea Energy Engineering and Consulting for the Subproject in line with the applicable E&S requirements as set out in Section 1.3. List of the Individuals/Organizations that Prepared or Contributed to the ESMP development is presented in Annex A.

A stand-alone Stakeholder Engagement Plan (SEP) has also been developed for the Subproject.

[1] https://www.ilbank.gov.tr/sayfa/ilbank-environmental-and-social-policy
https://www.ilbank.gov.tr/sayfa/ilbank-cevresel-ve-sosyal-politika-dokumani

1.2. Objective of the ESMP

This ESMP has been prepared to detail the measures to be taken during the implementation and operation (throughout the sub-financing agreement life cycle) of the Subproject to eliminate or offset adverse E&S impacts, or to reduce them to acceptable levels; and the actions needed to implement these measures.

1.3. Overview of E&S Requirements Applicable to the Subproject

The Subproject will be implemented in compliance with the requirements of the applicable national legislation and international agreements and conventions to which Türkiye is a party of, and in accordance with the following international requirements:

- WB Environmental and Social Framework (ESF, 2018) and the Environmental and Social Standards (ESSs) forming part of the ESF,
- WB Group General Environmental, Health and Safety Guidelines (EHSGs) (2007)
- GIIP
- WB Group EHSGs for Electric Power Transmission and Distribution (2007)

Table 1 identifies the relevance of the WB ESSs to the Subproject.

Table 1. Relevance of the WB ESSs to the Subproject

ESSs	Definition	Relevance to the Subproject
ESS 1	Assessment and Management of E&S Risks and Impacts	Relevant
ESS 2	Labor and Working Conditions	Relevant
ESS 3	Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4	Community Health and Safety	Relevant
ESS 5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not relevant in Türkiye
ESS 8	Cultural Heritage	Relevant
ESS 9	Financial Intermediaries	Relevant
ESS 10	Stakeholder Engagement and Information Disclosure	Relevant

When national requirements differ from the levels and measures presented in the EHSGs, the Subproject will achieve or implement whichever is more stringent.

A summary of the national legislation and international standards applicable to the management of environmental, social, health, and safety aspects of the Subproject is provided in Annex D.

1.4. Review and Update

This ESMP will be reviewed and updated by the Sub-borrower during Subproject implementation as necessary to reflect changes in national legislative framework, ILBANK's policies and other developments or in specific circumstances such as in case there are changes in the organization structure, following significant incidents, following incorporation of new tools, software or database into the ILBANK E&S Risk Management System, etc.

The Sub-borrower will notify ILBANK of any update to the ESMP.

The Sub-borrower will ensure that changes to the ESMP do not result in deviation from the requirements set forth by the national legislation and the E&S requirements applicable to the Subproject.

1.5. Implementation Arrangements

The Sub-borrower will hold ultimate responsibility for implementation of this ESMP by the Sub-borrower and contractor teams (engaged in connection with the Subproject – including sub-contractors) throughout the sub-financing agreement life cycle.

The Sub-borrower will ensure that adequate financial and human resources for effective ESMP implementation are available at sub-borrower, supervision consultant and contractor organizations throughout the sub-financing agreement life cycle.

The Sub-borrower will decide on the arrangements for the operation of the Subproject and be responsible for ensuring that operations are compliant with the national legislation and Operation ESMP.

The roles and responsibilities of the Sub-borrower, contractor and sub-contractor teams regarding the ESMP implementation are described in Chapter 5.

2. SUBPROJECT DESCRIPTION

2.1. Subproject Information

Key technical information on the Subproject is summarized in **Table 2**.

The sub-project to be financed under PUMREP includes the generating approximately 4,940,051 kWh of electricity annually, which is enough to supply power to over 23,368 households. Throughout its 30-year operational lifespan, the sub-project is expected to save the municipality more than EUR 73,03 million in energy costs and prevent the release of more than CO_2 emissions by over 5,954 tons annually.

The economic life of the plant expires after 30 years, The proposed solar power plant will have a DC capacity of 3180 kWp and an AC capacity of 3000 kWe. It will be equipped with 500 Wp Topcon modules, installed with a 30° tilt and a 25° azimuth angle.

At the end of the plant's 30-year economic lifespan, it will be decommissioned. The estimated cost for decommissioning is EUR **32,000.00** per MWp, leading to a total decommissioning cost **of EUR 188,496.00** for the entire power plant.

- **Solar Panels (Photovoltaic Cells):** These are the primary components that capture sunlight and convert it into electricity through the photovoltaic effect.
- **Steel Structures:** Steel structures are erected to support the solar panels, which are then installed on these structures.
- **Anti-reflective coating (ARC):** It will be applied to the photovoltaic cells in order to help minimize the amount of light reflected from the surface, thereby reducing glare.

Also, a "**Power Distribution Building**" will be built during SPP Sub-project. This building contains the equipment that allows the safe and efficient management of electrical energy. It functions as a grid connection point and controls the electrical distribution system. The following elements you mentioned are in the Power Distribution Building:

Switchgear which will consist of switches, fuses, circuit breakers, and other electrical devices that control, protect, and isolate electrical equipment within the substation. This will ensure the safety and reliability of the power distribution process.

Monitoring and Control Systems with monitoring and control systems that will allow operators to remotely monitor the performance of the solar power plant, manage energy production, and respond to any operational issues in real-time.

Protection Equipment that will be used to safeguard the equipment and personnel from electrical faults and overloads, substations are equipped with protection equipment such as relays, surge arresters, and grounding systems.

Communication Infrastructure (SCADA) is used to monitor and control various aspects of the power plant and is usually located in the Power Distribution Building.

Table 2. Key Technical Information on Subproject

Information	Remarks/ Notes
Technology	Photovoltaic
Installed Power	3180 kWp
Connection Power	3000 kWe
Annual Electricity Generation	4,940,051 kWh
Solar Panel Type	Monocrystalline Monoperc
Annual Carbon Emission Reduction	5,954 tons
Lifetime Carbon Emission Reduction	178,620 tons
Households Powered	23,368
Economic Life of the Power Plant (Operation Duration)	30 years

Further information on the construction and operation phase activities and facilities is, as well as Associated Facilities (AFs) is provided in the following sections in this Chapter.

2.1.1. Subproject Location

The solar power plant project is situated in Afyonkarahisar Province, within the Central District, in the İnaz (Demirçevre) neighborhood, covering a land area of 25,355.53 m². The site is classified as "Municipality Ownership - Preferred Usage Area" according to the title deed and is owned by the Afyonkarahisar Municipality. Based on information obtained from the General Directorate of Land Registry and Cadastre, parcel 671/1 is designated as "land" and is not used for agricultural purposes. The area is barren and unsuitable for grazing or farming, making it an ideal location for the solar power plant development. The land provides a secure and stable foundation for the construction and operation of the facility. Additionally, no large-scale agricultural, livestock, or industrial activities, such as farms or meat processing facilities, exist in the immediate vicinity of the project site. These further underscores the suitability of the location for the intended renewable energy infrastructure. Information on the Subproject location is presented in Table 3.

Table 3. Subproject Location

Information	Remarks/ Notes
Province	Afyonkarahisar
District	Central

Neighborhood/ Village	İnaz (Demirçevre)
Land Area (ha)	25,355.53 m^2
Land Use Type according to Title Deed	Municipality Ownership - Preferred Usage Area
Current Land Use	The sub-project area is located on a barren and vacant land that is not suitable for grazing or agricultural use. In addition, according to the information obtained from the website of the General Directorate of Land Registry and Cadastre, it is stated that the parcel 671/1 has the status of "land" and is not used for agricultural purposes. The title deed belongs to the Afyonkarahisar Municipality and the relevant document is given in the attachment. This land, which belongs to the Afyonkarahisar Municipality, provides a safe and solid foundation for the development and operation of the solar power plant.
Other Nearby Facilities and Activities	There is no precedent for large-scale farms, meat processing facilities or other activities in this terrain.

A map of the Subproject location is presented in **Figure 1**.

Figure 1. Map of Subproject Location

Table 4. Coordinates of the Project Area

Unit	Coordinates (WGS84 in decimals)	
	Y	X
K1	38.804064°N	30.423740°E
K2	38.804482°N	30.421480°E
K3	38.804341°N	30.420154°E
K4	38.804363°N	30.420130°E
K5	30.420130°N	30.420439°E
K6	38.805317°N	30.421280°E
K7	38.805279°N	30.422615°E
K8	38.804170°N	30.423773°E

#K represents the corner of the sub-project area.

2.1.2. Energy Transmission Line (ETL)

As part of the sub-project, the construction of the energy transmission line (ETL) is planned to strengthen local grid connections and ensure safe energy transmission. This line is designed to include both underground cables and overhead lines. The total length of the ETL route, which will be constructed by the contractor, including the procurement of materials and installation, is 1000.18 meters. Of this, 364 meters will consist of underground cables, and 636.18 meters will be established as overhead lines. Technical information on the ETL is presented in Table 5.

A map showing the ETL route and the national grid connection location is provided in Figure 2. Detailed mapping of the sub-project area and the locations of the pylons to be constructed is given in Figure 3. The locations where the pylons will be installed pass through parcel 350/77 and 350/78 as shown in Figure 3. According to the parcel query, both parcels are registered under the Treasury, and as indicated in the attached documents, there is a notation on the property regarding the passage of the energy transmission line which presented in the Annex B.4. This notation signifies that permission has been granted for the passage of the line. Status of land acquisition for the ETL is described below in Section **3.4**.

Table 5. Technical Information on the ETL

Information	Remarks/ Notes
Status of ETL	ETL will be newly construction
Transformer station (for national grid connection)	There is no transformer station needed.
Length of the route (km)	1 km
Voltage level (kV)	34,5 kV
Number of ETL towers (pylons)	9 (each of them 28050 kg)
Total footprint area per each ETL tower (m2)	Less than 1 m2
Number of parcels subject to expropriation	The number of lands that need to be expropriated is none.
Number of parcels subject to easement rights (“*irtifak hakkı*”)	350/77 and 350/78

Figure 2. Map of ETL Route

Figure 3.Sub-project Area and Pylon Locations of ETL

2.1.3. The Temporary Sub-project Facilities

The Temporary Sub-Project Facilities are expected to be installed during construction. The site layout will be prepared as a “Design, Procurement and Installation” project during the tender phase. In other words, temporary facilities for mobilization such as office, storage area are required to be constructed on the construction site by the contractors of the sub-project after the contractor makes the final designs.

2.2. Associated Facilities

Associated Facilities (AF) that are **not funded** as part of the Subproject are listed in Table 6.

Table 6. List of Associated Facilities of the Subproject

Associated Facility (AF)	Criteria			Notes/ Remarks
	(a) Is the AF directly and significantly related to the Subproject	(b) Is the AF carried out, or planned to be carried out, contemporaneously with the Subproject	(c) Is the AF necessary for the Subproject to be viable and would not have been constructed, expanded or conducted if the Subroject did not exist.	
Access roads to be fixed	Yes	Yes	Yes	Before the project construction starts, it is planned to fix the roads and to allow construction vehicles and equipment to pass easily. It has been decided by the municipality teams to fix the existing roads that will lead to the project area.

2.2.1. Site Access Route

Access to the sub-project site will be provided via European Route E-96 as seen in the Figure 1. Providing access via this road will prevent any settlement from being affected. By following this highway, the Main Access Road connecting to the sub-project site can be reached. The section of the Main Access Road up to the junction near the Afyonkarahisar Drinking Water Treatment Facility is asphalt, while the road from the treatment facility to the sub-project area requires improvement and rehabilitation. As part of the sub-project, the non-asphalt portion of this road will be improved by stabilizing and asphalted to make it suitable for access, and these works will be carried out by the Afyonkarahisar Municipality. Figure 1 shows asphalted and unpaved roads. The route is designated as a road in the zoning plan, and therefore, no land acquisition is required. The relevant zoning plan is provided in the Annex B.5 .

2.3. Subproject Area of Influence

The Sub-project Area of Influence refers to the geographic region where the environmental and social effects of the sub-project are expected to occur. This area includes locations affected by construction, operation, and maintenance activities, such as local ecosystems, nearby settlements, and infrastructure. Identifying the Area of Influence (AoI) is crucial for the Environmental and Social Management Plan (ESMP), as it allows for a comprehensive assessment of potential risks and helps develop mitigation strategies to minimize adverse effects on both the environment and communities. Appropriate management measures will be implemented within the defined area to address these impacts effectively.

The social baseline serves as the foundation for assessing the current social situation, identifying risks and impacts, and developing mitigation measures. Social baseline studies are conducted through two methods: desk studies and field studies. The desk review involves an assessment of existing environmental and social documents, strategic-level assessments, and supporting materials. This review also includes an examination of existing sub-project documents to understand the work completed thus far and to identify key issues that need further evaluation in this report.

The social baseline of the sub-project provides a comprehensive overview of local demography, health and education services, land use/land acquisition, cultural heritage, livelihoods of local people, existing infrastructure and vulnerable groups in the sub-project AoI. When examined in this direction, the relevant social impact area is limited to İnaz (Demirçevre) neighborhood and Sadıkbey Neighborhood.

The environmental and social assessment will be conducted by considering all direct, indirect, and cumulative environmental and social risks and impacts of the sub-project in an integrated manner. This assessment will be based on relevant sections outlined in Table 1, in alignment with ESS1-ESS10. As a result, the sub-project's Area of Influence (AoI) has been determined. Based on the social baseline and potential sub-project impacts, the boundaries of the social AoI have also been defined. This defined impact area is illustrated in Figure 4.

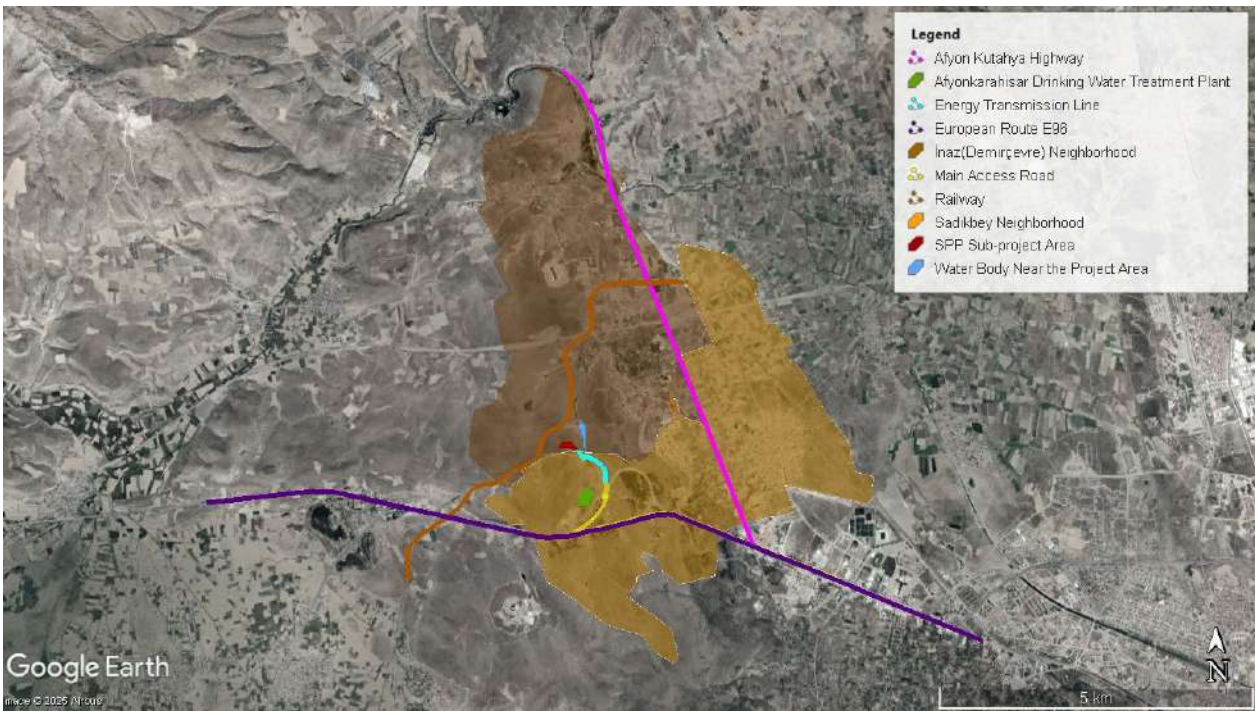
The AoI is highly dependent on the type and magnitude of the sub-project's impacts. For instance, the area of influence for an emission source may be identified using a dispersion model, while the area affected by wastewater discharge depends on the characteristics of the effluent and its discharge point. Therefore, in the ESMP, the AoI is defined based on

the type and scale of impacts and the impact assessment conducted. Project Affected Parties, especially those living in settlements close to the sub-project area who may experience primary impacts such as odour, noise, and dust, have been identified based on detailed impact assessment results. According to our situation, the İnaz Neighborhood affected by the sub-project area has been selected as there are settlements close to the sub-project and the sub-project will be established in this Neighborhood. Moreover , ETL passes through the parcels connected to the Sadıkbey Neighborhood. Due to the ENH passing through the parcels connected to Sadıkbey Neighborhood, this neighborhood may also be affected by the project. For both neighborhoods, environmental impacts such as increased traffic, noise and dust during the construction activities to be carried out within the scope of the project may cause short-term disturbances in both İnaz and Sadıkbey Neighborhoods. In addition, especially with the increase in human mobility, there may be an increase in the density of local infrastructure and services (e.g. health centers, markets, educational institutions). This situation has the potential to cause some disruptions in the daily lives of the residents of the neighborhood.

The project may also create positive impacts such as providing local employment and increasing economic mobility. However, in order to minimize the possible negative effects of these impacts and not to create permanent effects on the society, it is recommended that regular information meetings be held in both İnaz and Sadıkbey Neighborhoods and that complaint mechanisms be put into effect. In addition, it is important to regularly monitor the measures to be taken to reduce environmental impacts during the construction phase.

In addition, the Afyon Drinking Water Treatment Plant located on the road route is also among the facilities that may be affected. Similarly, the railway crossing located close to the sub-project area has also been included among the facilities that may be affected.

Figure 4.The Sub-project Impact Area



2.4. Environmental and Social Baseline

In this study, various data collection methods were employed to characterize the environmental and social baseline conditions. Conversation with mukhtars of İnaz and Sadıkbey Neighborhoods and municipal teams provided valuable insights into the local situation for social baseline and environmental baseline. These discussions yielded information about agricultural practices, social structures, environmental issues, and local governance activities. Additionally, information obtained from internet research contributed to the existing data. Various official websites, academic publications, and local reports were reviewed to gain a comprehensive understanding of the environmental and social conditions within the sub-project's impact area. These sources included Environmental Status Report of Afyonkarahisar Governorship, Afyonkarahisar Governorship Risk Mitigation Plan and statistics provided by local governments.

By combining these two methods, a rich and diverse dataset was created to understand the environmental and social conditions of the sub-project area. The information obtained forms the basis for the assessments conducted within the Environmental and Social Management Plan (ESMP).

Table 7 presents a summary of the baseline field studies conducted as part of the ESMP study.

Table 7. Summary of Baseline Field Studies

Subject	Date of the Field Study	Experts who Participated in the Field Study

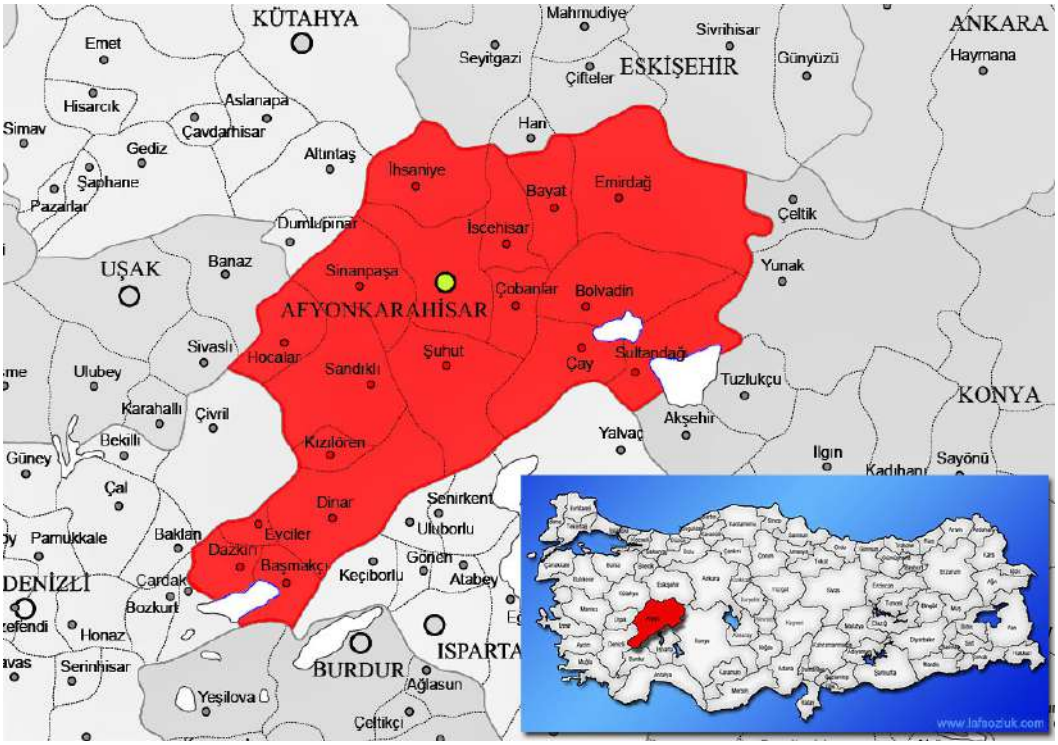
Social and Environmental Baseline	22.10.2024	Zülkarni Dindoruk (mukhtar of the İnaz Neighborhood)
	20.01.2025	Beytullah Narin (mukhtar of the Sadıkbey Neighborhood)
	22.10.2024	Tuba Ciğerci (Afyonkarahisar Municipality Water and Sewerage Director)

2.4.1. Physical Environment

2.4.1.1. Topography

Afyonkarahisar is a city located at the intersection of Turkey's Aegean and Central Anatolia regions, reflecting the geographical features of both. The city contains both lowland plains and mountainous areas. Its average elevation above sea level is 1,034 meters and it is surrounded by mountains of volcanic origin. Among its significant elevations are the Sultan Mountains to the northwest and the Emir Mountains to the east. The topography of Afyonkarahisar consists of broad plains and mountainous regions, making it highly suitable for agricultural and livestock activities. Additionally, the city is famous for its thermal springs and hot springs. These natural features contribute to Afyonkarahisar being a key center for both agriculture and tourism.

Figure 5.Geographical location of Afyonkarahisar Province



2.4.1.2. Geology

The geological structure of Afyonkarahisar is diverse and has a rich history. The city is largely characterized by soils and rocks formed as a result of volcanic activity. Lava flows,

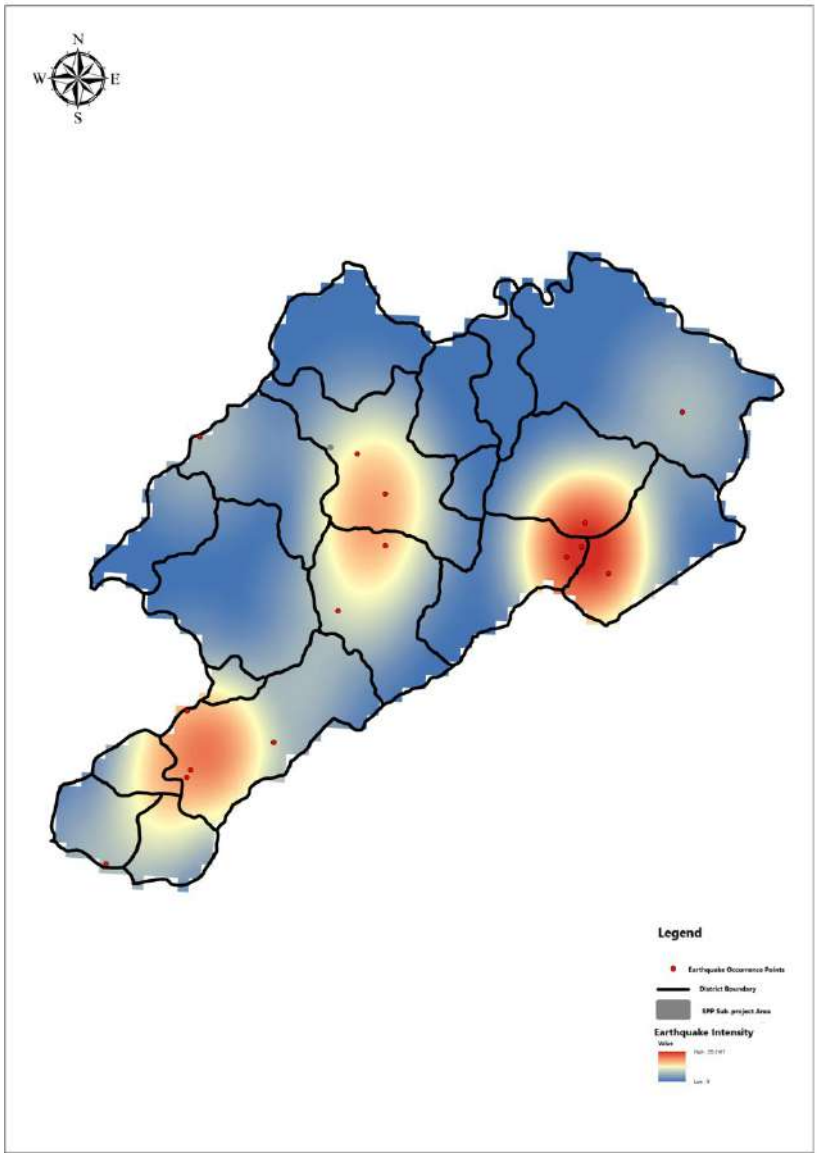
tuff, and basalt from the surrounding volcanic mountains play a significant role in shaping the region's geology. Additionally, a large portion of the city consists of sedimentary rocks from the Neogene period, with notable formations of clay, sandstone, and marl. Afyonkarahisar is also renowned for its rich marble deposits, which are famous worldwide and contribute economically to the region. Moreover, the presence of thermal springs is linked to geothermal activities beneath the surface. This geological diversity is a key factor in shaping the city's natural resources and wealth.

2.4.1.3. Tectonics and Seismicity

Earthquakes in Afyonkarahisar are typically of low magnitude and generally have limited effects on the local population and structures. While the region does not frequently experience large or destructive earthquakes, the risk is still present due to its tectonic setting, which necessitates ongoing vigilance. Local authorities, such as AFAD (Disaster and Emergency Management Authority), play a crucial role in implementing and enforcing building codes to ensure that new and existing structures are earthquake resistant. This is particularly important for reducing the potential impact of future seismic events on both residential and industrial areas.

In recent analyses, AFAD data from 2020 to 2023 was used to assess the region's seismic activity. During this period, the recorded earthquakes ranged in magnitude from 3.0 to 3.9 on the Richter scale, indicating relatively mild seismic activity. The sub-project site, located within a 5 km radius, has not experienced significant seismic events, further suggesting that the immediate area has a relatively low earthquake hazard. However, continuous monitoring and preparedness are essential, as even minor earthquakes can pose risks depending on the resilience of the infrastructure and local soil conditions. This data highlights the importance of ongoing risk assessments and proactive measures to mitigate any potential future earthquake-related hazards. Afyonkarahisar Earthquake Intensity Map shown in the Figure 6.

Figure 6.Afyonkarahisar Earthquake Intensity Map



2.4.1.4. Soil and Land Composition

The soil and land composition of Afyonkarahisar plays a significant role in the region's agricultural activities and the use of natural resources. The soil structure varies due to the effects of climate and geological processes. The extensive agricultural lands in Afyonkarahisar are primarily covered by alluvial soils, which provide high productivity. These alluvial soils are particularly common in the lowland areas and are crucial for cultivating crops such as grains, sugar beets, and potatoes. When we narrow it down to the sub-project area, it is important to note that the site is situated on dry terrain and at a peak point, where agriculture and animal husbandry are not practiced.

Moreover, The Afyonkarahisar region's volcanic history has led to the formation of volcanic-origin soils, especially in mountainous and plateau areas. While these soils may

not be rich in organic matter, they are mineral-rich and provide suitable pastures for livestock activities. Additionally, soils containing clay and tuff derived from volcanic rocks are sources of raw materials used in the construction sector.

Limestone, marble, and other sedimentary rocks also contribute to the soil structure in Afyonkarahisar. These sedimentary rocks are used as building materials and affect the soil's water retention capacity. Moreover, some of the soils in the region may exhibit saline and alkaline properties, which can influence agricultural productivity, particularly in areas with high groundwater levels.

In terms of land use, the region features extensive agricultural areas, as well as significant natural resources for livestock farming, marble extraction, and thermal tourism. The soil and land composition of Afyonkarahisar offers a broad potential for both agricultural diversity and economic activities.

2.4.1.5. Meteorology and Climatic Characteristics

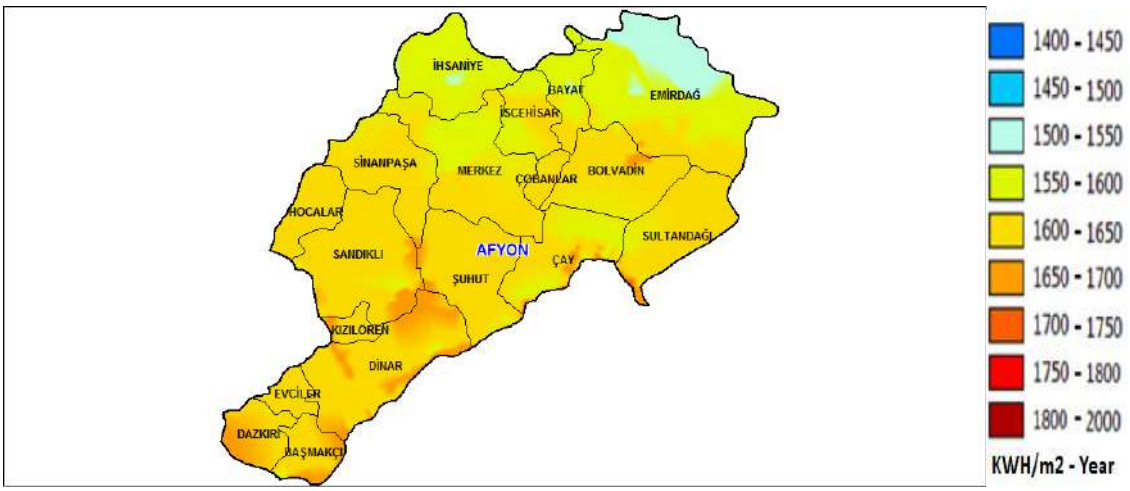
Afyonkarahisar is a city under the influence of the continental climate. Summers are hot and dry, and winters are cold and snowy. In the spring and autumn months, the weather is generally mild and rainy. In the city, temperatures often drop below 0°C during the winter months and can rise to over 30°C during the summer months. The altitude and mountainous structure of Afyonkarahisar lead to temperature fluctuations and sudden weather changes during seasonal transitions. These climatic features also have an impact on agricultural products and vegetation; Crops such as wheat, barley and sugar beets are widely grown.

The solar energy potential in Afyonkarahisar province, especially within the Merkez District, presents a notable opportunity for solar power development. The solar energy potential map which seen in the Figure 7 indicates that the Merkez District, situated in the western part of the province, has a minimum estimated annual energy production of 1500 kWh/m². In certain central areas of the district, this potential is even higher, with annual production estimates ranging from 1550 to 1700 kWh/m².

These figures highlight the district's prime suitability for solar energy projects. The Merkez District benefits from high levels of solar radiation, a result of its favorable geographical location and climatic conditions, which provide abundant sunshine throughout the year. This makes the district an excellent candidate for the establishment of large-scale solar power plants.

The central regions of Merkez District, which receive the highest levels of solar radiation, are particularly well-suited for photovoltaic (PV) installations. These areas are capable of supporting efficient energy production, ensuring the success and profitability of solar power initiatives. By leveraging this solar potential, Afyonkarahisar Municipality has the opportunity to reduce its reliance on non-renewable energy sources, decrease electricity costs, and support the national objective of increasing the contribution of renewable energy to the overall energy mix.

Figure 7.Solar Energy Potential Map of Afyonkarahisar Province



2.4.1.6. Air Quality

The air quality in Afyonkarahisar is influenced by regional industrial activities, transportation density, and natural factors. The city can experience increased dust and particulate matter emissions, especially during the summer months when agricultural activities peak. Additionally, the presence of industrial facilities and motor vehicles contributes to higher levels of pollutants, such as nitrogen dioxide (NO2) and carbon monoxide (CO). Local authorities have developed various strategies to monitor and improve air quality. These strategies include increasing green spaces, enhancing public transportation systems, and controlling industrial emissions. Air quality monitoring stations continuously track pollutant levels in the region, and this data serves as a foundation for achieving environmental sustainability goals. Overall, air quality in Afyonkarahisar is crucial for the health of the local population and environmental balance.

Moreover for the air quality in Afyonkarahisar's central district, as well as in the project area, is particularly relevant due to the proximity of residential zones and commercial activities. The central district experiences higher traffic volumes and industrial emissions,

which can exacerbate air pollution levels. In contrast, the sub-project area, located on dry terrain at a peak point, is less affected by urban pollution but still needs careful monitoring to ensure that any potential emissions from construction activities do not compromise the local air quality.

The sub-project site's elevation may offer some natural mitigation against pollution, but it is essential to implement effective environmental management practices to minimize dust and emissions during the construction phase.

2.4.1.7. Noise

Noise pollution in Afyonkarahisar is caused by the industrial activities, traffic density and construction work of the region. Especially the motor vehicle traffic concentrated in the city center, vehicle noise and sounds emitted from industrial facilities can be disturbing for the local people. Although the sub-project area is located in a location where noise levels can be lower due to its arid structure and being located on a hill, the noise from the machinery and equipment during the construction process can temporarily cause discomfort in the surrounding areas. For this purpose, the measures to be taken will be stated in this report.

2.4.1.8. Water Resources

Afyonkarahisar drinking water resources are based on the region's natural water resources and infrastructure. Among these resources, groundwater stands out as an important source of drinking water; groundwater reserves are located especially in areas with volcanic and sedimentary rocks. In addition, surface water resources such as rivers, ponds and dams are also used to provide drinking water. Afyonkarahisar is also famous for its hot springs and thermal waters; in addition to being a center of attraction in terms of health tourism, these resources can also be evaluated as drinking water under certain conditions. In addition, drinking water provided by local governments through the water network is purified and distributed in accordance with hygienic conditions.

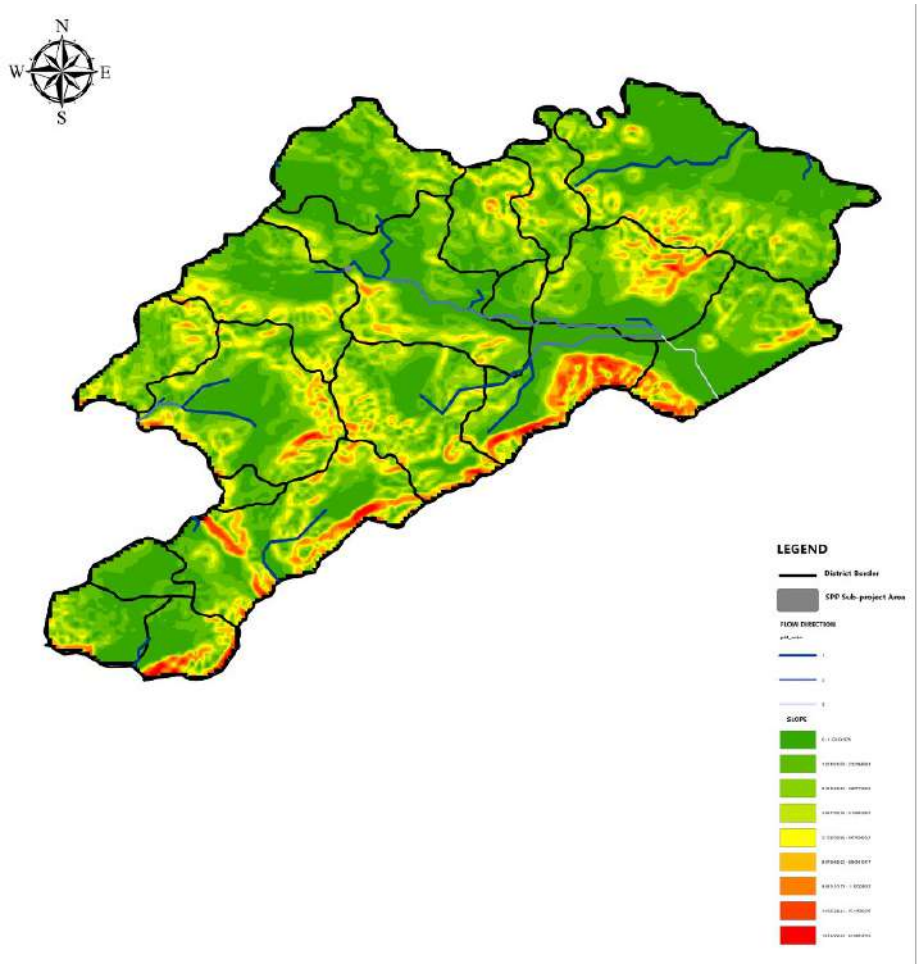
Afyonkarahisar Drinking Water Treatment Plant which seen in the Figure 4 is located close to the sub-project area and the water needs of the central district are met by this plant.

2.4.1.9. Natural Hazards (such as flooding, landslides, fire, etc.)

Floodplains are large areas where water spreads out of the normal beds of rivers, streams and rivers due to heavy rainfall or excessive water flow. Floodplains are areas designated to protect residential areas and agricultural areas by preventing water from getting out of control. These areas prevent floods by ensuring the spread of flood waters and help to

drain the water in a controlled manner. The highest average rainfall in Afyonkarahisar is 56.1 mm in May. In the analysis, the drainage is taken as 500 m and the direction of the streams and the channel to be connected to them in case of rainfall are shown in the Figure 8. Although the sub-project area is next to a dry stream bed in the analysis, the risk is low due to the slope of the sub-project area and the low monthly rainfall of Afyonkarahisar.

Figure 8. Afyonkarahisar Flood and Hydrology Analysis



In addition, there is a water body located at a low elevation near the sub-project area, as seen in Figure 9, which was designed as an artificial beach in the past. This water body is situated below the sub-project area in terms of elevation. During the meetings with the municipality, it was confirmed that this artificial dam is under the municipality's control, and there is no risk of water overflowing. In the event of possible rainfall, the water body is not expected to reach the sub-project area. Furthermore, if deemed necessary, the municipality plans to construct flood walls around the water body to provide additional protection against potential flooding. This proactive measure would further ensure the

safety of the sub-project area and minimize any risks associated with heavy rainfall or unexpected water levels.

Figure 9. The Water Body Near Sub-project Area

When a general assessment is made in terms of landslide and fire risk in the Afyonkarahisar region, the probability of such natural disasters is quite low. The region has a stable topography due to its geological structure; especially the location of the sub-project area is an arid structure and minimizes the risk of landslides because it is located on a hill. In addition, the climate conditions in the region, vegetation cover and humidity levels are factors that reduce the risk of fire. Therefore, potential threats related to landslide and fire risk remain at manageable levels when local environmental conditions are taken into account. However, it is still important to take the necessary precautions against any negative situation and to continue a careful monitoring process.

2.4.2. Biodiversity

For the sub-project area; information on the habitats of species that are important and/or endangered or may be endangered and species that are endemic to our country is given in the Flora and Fauna section. As a result of the literature studies conducted regarding the Afyonkarahisar province where the project area is located; no biosphere reserves, biotopes, biogenetic reserve areas were encountered.

2.4.2.1. Flora

Afyonkarahisar is located at the intersection of the Iranian-Turanian and Mediterranean flora regions. The area's mountainous position has created diverse local climate conditions, allowing for the coexistence of Iranian-Turanian and Mediterranean flora, as well as plants from the Euro-Siberian flora region. This rich vegetation is particularly notable in the Sultandağı, Akdağ, Kumalar, and Emirdağ areas.

Turkey's flora consists of 167 families, 13,321 genera, and 10,036 species, with 3,689 (31.82%) being endemic. In Afyonkarahisar, nearly 2,500 species from 110 families have been identified, including 370 endemic species such as Thermopsis Turcica, Astragalus Thracicus subsp. Afyonicus, Polygonum Afyonicum, Verbascum Afyonense, Sideritis Akmanii, and Cota Fulvida, which are found only in this region.[2]

The vegetation in Afyonkarahisar mainly consists of species typical of a steppe climate. Dominant vegetation includes steppe plants, grasslands, and shrubs, with tall grasses and small shrubs prevalent outside agricultural areas. Notable species include Kermes Oak (Quercus Coccifera), commonly found in arid regions, and Sweetgum (Liquidambar Orientalis), which adds beauty to the natural forests. Additionally, cacti and succulents are present in hot, dry areas.

The sub-project area is situated in a dry, elevated terrain away from this rich ecosystem of endemic vegetation, indicating that it does not pose a problem regarding these plant species. This condition suggests that the sub-project area is suitable for maintaining environmental integrity.

2.4.2.2. Fauna

According to the national biodiversity inventory, Afyonkarahisar hosts a total of 45 mammal species. Among these species, there are 13 from Rodentia, 1 from Erinaceomorpha, 1 from Lagomorpha, 11 from Carnivora, 3 from Artiodactyla, and 16 from Chiroptera. Moreover, there are no endemic mammal species in Afyonkarahisar.

So far, 270 different bird species have been identified in the region. Of these species, 208 were recorded during field studies conducted in 2013 and 2014. Among the identified bird species, 142 are passerines, 93 are waterfowl, 29 are diurnal raptors, and 6 are nocturnal raptors. There are no endemic bird species in Afyonkarahisar.

[2] Afyonkarahisar Governorate Environment, Urbanization and Climate Change Provincial Directorate, Afyonkarahisar Province 2022 Environmental Status Report

The 28 freshwater fish species found in the region, 19 are endemic. Regarding reptiles, 26 species have been identified, with only Emys orbicularis (the European pond turtle) being endemic. While there are a total of 129 reptile species in Turkey, Afyonkarahisar has 26 species.

Table 8 shows the distribution of species and their endemism rates across different life groups in Afyonkarahisar, based on both literature studies and field studies. It provides a detailed look at the species diversity in the region groups like mammals and birds show no endemic species.

Table 8.Afyonkarahisar Province Inventory Results Table[3]

Life Group	Literature Studies		Field Studies		Total	
	Species Count	Endemic	Species Count	Endemic	New Species	Species Count
Mammals	43	0	55	0	0	55
Birds	232	0	232	0	0	232
Freshwater Fish	28	19	28	19	0	28
Reptiles	26	1	26	1	0	26
Amphibians	7	1	9	2	0	9
Nonvascular Plants	8	0	8	0	0	8
Invertebrates	139	0	139	0	0	139

The sub-project area is located in a dry, elevated terrain, away from the natural habitats of these animal species, which means it does not pose a problem regarding mammals and birds. Thus, the sub-project can be implemented sustainably while preserving environmental integrity.

2.4.3. Socio-economic Environment

The socio-economic environment of the sub-project area includes various aspects of human life such as population dynamics, land ownership, employment, education, health services, and infrastructure. Analysing these factors is essential to assess the potential impacts of the sub-project on local communities. In this section, we will examine key socio-

[3] Afyonkarahisar Governorate Environment, Urbanization and Climate Change Provincial Directorate, Afyonkarahisar Province 2022 Environmental Status Report

economic indicators, including demography and population, land use and ownership, livelihood means, and the provision of basic services such as education, healthcare, and infrastructure. Additionally, attention will be given to transportation, cultural heritage (both tangible and intangible), and the needs of vulnerable and disadvantaged groups. This comprehensive understanding will allow for a more informed evaluation of the sub-project's socio-economic impact on the region.

2.4.3.1. Demography and Population

According to TÜİK data, the population of Afyonkarahisar in 2023 is 751.344. Over the past five years, the total population of Afyonkarahisar has increased by 3%, with the growth rates for men and women being equal. The male population in the province is recorded as 374.705, while the female population is 376.639. In Afyonkarahisar central district, the population is 324.685, with 163.225 women and 161.460 men. The central district has experienced a population growth of 5.5% over the last five years, with the growth rates for men and women remaining the same.[4]

Following discussions with the mukhtars of İnaz Neighborhood and Sadıkbey Neighborhood, which is within the Area of Influence, the neighborhood's population data is presented in Table 9. The Inaz mukhtar stated that there has been no significant change in the population in recent years, noting that there are approximately 200 households in the neighborhood, with most consisting of 4-person families. The Sadıkbey mukhtar stated that there has been increasing in population in recent years because of new buildings, also he stated that there are approximately 530 households in the neighborhood.

Table 9.Population Values in Social Impact Area (2024)

Population	İnaz (Demirçevre) Neighborhood	Sadıkbey Neighborhood
Female Population	370	1000
Male Population	430	1100
Total	800	2100

Source: İnaz and Sadıkbey Neighborhood Mukhtars

2.4.3.2. Land Ownership Status and Land Use by Affected People

The land allocated for the sub-project is under the ownership of the municipality. Currently, there are no ongoing activities or developments on the land. This area is unused, and no residential, agricultural, or commercial purposes have been observed. Furthermore, the l and is not associated with any informal settlements or private ownership disputes. All

[4] https://cip.tuik.gov.tr/

relevant land title deeds and documentation confirming the municipality's ownership are included in the Annex C of this report for reference and verification. These documents detail the exact boundaries and legal status of the land in accordance with local property laws. The local landowners around sub-project area have been consulted through the Sadıkbey Mukhtar, and they have been informed about the solar power plant project and its potential impacts. According to their statements, they do not expect any negative effects from the sub project. Additionally, they have been informed about the complaint mechanism and advised that they can report any potential issues and share their opinions with the relevant authorities.

2.4.3.3. Employment and Means of Livelihood

Based on information obtained from the neighborhood Mukhtar, the main sources of livelihood in İnaz and Sadıkbey Neighborhoods are agriculture, animal husbandry, and tourism. Nearly half of the households are engaged in agriculture, cultivating potatoes, wheat, barley, corn, and alfalfa. Those involved in agriculture typically farm on their own land. In the Inaz Neighborhood a large portion of the community, however, relies on animal husbandry, with approximately 1,500 sheep and 1,000 cattle in the neighborhood. Additionally, when asked about the sub-project area, the Inaz Mukhtar[5] mentioned that it is not used as pastureland, noting that there are already larger areas available for grazing elsewhere. Apart from agriculture and animal husbandry, there are also residents involved in tourism, with some working in thermal hotels located within the neighborhood as well as throughout Afyonkarahisar.

Although animal husbandry is not very common in Sadıkbey Neighborhood, there are approximately 300 sheep and 1,000 cattle in the neighborhood. Additionally, when asked about the sub-project area, the Sadıkbey Mukhtar stated that this area is not used for grazing.

2.4.3.4. Education and Health Services

According to information received from the İnaz Neighborhood mukhtar, there is one primary school serving 80 students. There is no transportation for students from the neighborhood to other areas. Additionally, there is a health center in the neighborhood that provides basic health services to the community.

Also the information received from Sadıkbey Neighborhood Mukhtar, There are three schools in the neighborhood, two primary school with 23 and 200 students and one

[5] The meeting with the Inaz Mukhtar was held face to face at the Inaz Mukhtar's office on October 21, 2024.

secondary school with 98 students. There is also one health center. Figure 10 shows the proximity of the relevant schools and health centers to the sub-project area.

Figure 10. Schools and Health Centers in the Project Area and Surroundings

2.4.3.5. Infrastructure Services

In İnaz and Sadıkbey Neighborhoods, the local community benefits from a well-established drinking water supply sourced from a nearby water treatment facility, ensuring access to clean and safe drinking water. The neighborhood is equipped with a comprehensive sewage system that efficiently transports wastewater to an advanced wastewater treatment plant, where it undergoes proper treatment before being released back into the environment. Additionally, waste management is effectively handled, with garbage collected regularly by the municipality, which helps maintain cleanliness and hygiene in the area. Furthermore, the neighborhood has a distinct energy usage pattern: while the thermal hotels in the vicinity utilize natural gas for heating and energy needs, the residents primarily depend on coal for their heating purposes.

2.4.3.6. Transportation and Traffic

İnaz Neighborhood is located in an important location in terms of transportation. Access to the neighborhood is provided by road and is connected to the main roads. These roads provide easy access to the neighborhood for both local residents and visitors from outside. The sub-project area in İnaz Neighborhood is well connected to the surrounding areas via

existing road networks, facilitating access for both local residents and external stakeholders involved in the sub-project.

The main route road to the sub-project area is asphalted up to the Afyonkarahisar Drinking Water Treatment Plant, while the remaining roads will be fixed by the municipality teams before the start of the sub-project construction as seen in the Figure 1.

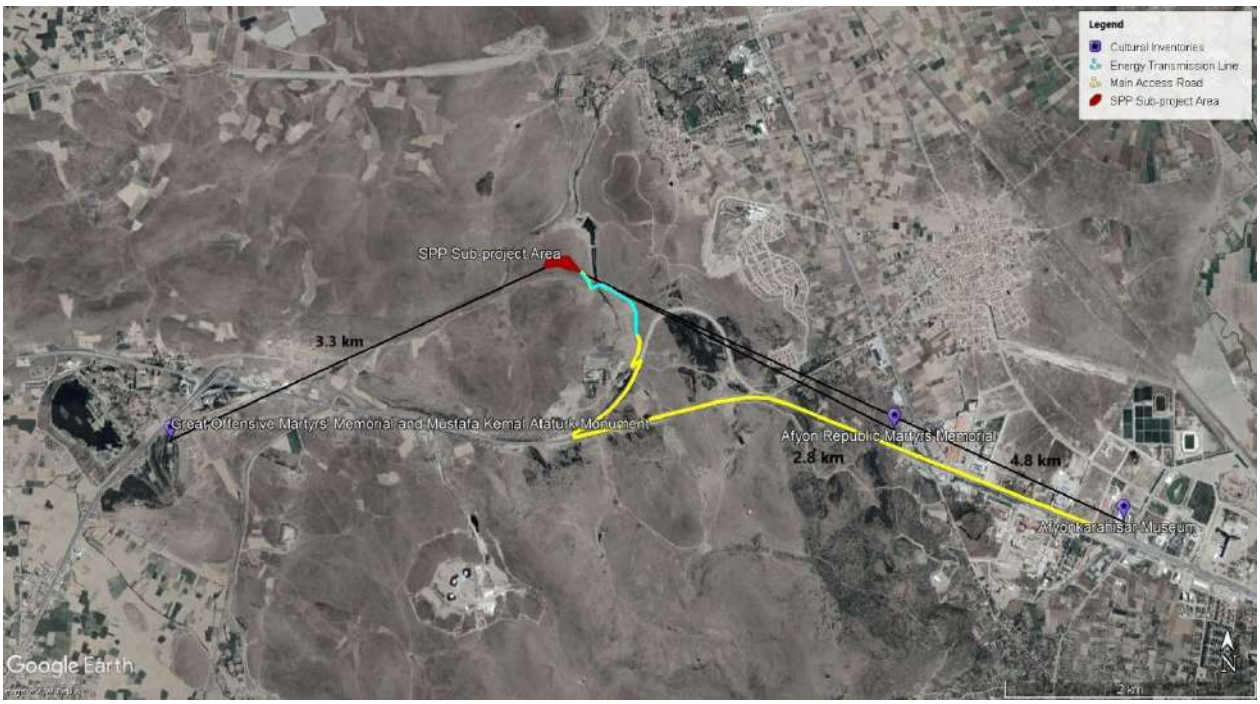
Traffic flow within the sub-project area will generally be manageable, but activity may increase when heavy machinery and transport vehicles enter the site during the construction phase. Construction traffic will proceed on the designated route to minimize disruption to local residents and ensure safety. In addition, clear signage will be installed to inform residents about possible traffic changes or increased activity, and communication will be maintained with the community.

2.4.3.7. Cultural Heritage (Tangible and Intangible)

Afyonkarahisar is one of Turkey’s prominent centers, rich in historical and cultural heritage. Having hosted many civilizations since ancient times, Afyonkarahisar stands out with both its natural beauty and historical artifacts. The city is particularly known for its cultural heritage sites such as Afyonkarahisar Castle, the Great Offensive Martyrs' Memorial and Mustafa Kemal Atatürk Monument, the Afyon Republic Martyrs Memorial, and the Afyonkarahisar Museum as seen in the Figure 11. These landmarks symbolize the city's significant role in Turkey’s War of Independence and the founding of the Republic.

The Sub-project planned in the İnaz and Sadıkbey Neighborhood, Afyonkarahisar central district, aims to produce sustainable energy without damaging the region’s historical heritage, thanks to its distance from these cultural assets. The sub-project area is located 3.3 km from the Great Offensive Martyrs' Memorial and Mustafa Kemal Atatürk Monument, 2.8 km from the Afyon Republic Martyrs Memorial, and 4.8 km from the Afyonkarahisar Museum. These distances ensure that the cultural heritage sites will remain unaffected, while allowing the sub-project to proceed smoothly.

Figure 11.Cultural Inventories Around the Sub-project Area



2.4.3.8. Vulnerable and Disadvantage Groups

The reason for including vulnerable groups in the sub-project is to identify in advance the negative impacts of large-scale activities such as construction on these groups and to ensure that the necessary measures are taken to minimize these impacts. These groups are often at greater risk of being affected by social changes and may have difficulty in advocating for themselves, participating in sub-projects or accessing services. Therefore, it is important to take into account the special needs of these groups when assessing the social impacts of sub-projects in order to ensure social justice and to ensure that the sub-project is sustainable for everyone. The reason for selecting these groups is that they are vulnerable groups likely to be encountered within the social impact area of the sub-project. Vulnerable groups in the social impact area comprise of:

Disabled individuals: Construction activities can disrupt accessibility routes and restrict mobility. They may have special needs for access to participation activities.

People over 65 years of age: Construction activities can disrupt older people's daily routines and access to basic services, potentially causing discomfort or stress. They may have special needs for access to participation activities.

Immigrants and Refugees: Refugees may have difficult living conditions and limited resources, making them more susceptible to the impacts of the sub-project. Their legal status and lack of access to certain services can also heighten their vulnerability.

People with chronic illnesses or in need of special care: Construction-related activities (traffic, damage to infrastructure, etc.) can affect access to basic services and routines, exacerbate health problems or cause discomfort.

Female head of households: Female heads of households with special needs may have limited participation in consultations.

The table below was filled in with the information received from the Mukhtars and the Municipality.

Table 10.Vulnerable Groups in the Social Impact Area

Number	İnaz Neighborhood	Sadıkbey Neighborhood
Refugees	None	None
Disabled individuals	10	20
People over 65 years of age	200	500
People with chronic illnesses or in need of special care	None	5-6
Female head of households	20	5

3. SUBPROJECT ACTIVITIES

3.1. Construction Phase

3.1.1. Construction Activities

Construction activities will be completed in 6 months. Detailed implementation schedule envisaged for the construction phase activities (including provisional acceptance) is presented in Chapter 6.

Construction phase activities are briefly described below:

- Pre-construction activities:

Since the sub-project site is a municipal property, no excavation or land leveling activities will be required as the municipality has already prepared the site. Therefore, no topsoil stripping, excavation, or filling is planned

- Construction/ installation activities:

The installation of the solar panels will primarily focus on ensuring the stability of the panel supports. If the ground consists of rock or stony terrain, the legs of the solar panels will be mounted on concrete foundations since they cannot be driven 120 cm into the ground. However, if the terrain is soil-based without rocks or stones, the legs will be driven 120 cm into the ground (a process known as "ramming"), eliminating the need for concrete foundations. The core components include the assembly of photovoltaic panels, steel construction for support, inverters, transformers, and cabling. No blasting or pile driving is anticipated. Basic concrete work may be required in case of rocky terrains.

- Construction machinery and equipment:

The machinery and equipment to be used during the construction phase include:

-2 units of lifting equipment (Manitou)

-1 transportation truck

-1 pickup truck

-1 JCB (excavator)

-1 ramming machine (for driving supports into the ground).

- Water use and wastewater management:

Water will primarily be used for dust suppression and other construction-related purposes. The water will be supplied through water tankers as the site does not have an existing

water infrastructure. Wastewater generated on-site will be managed through a septic system, where sewage will be collected and handled both during the construction and operation phases.

- Waste and hazardous materials management:

Waste generated during construction will include general construction debris, packaging materials, and minimal hazardous materials. Hazardous materials will mainly involve fuels and lubricants used for machinery. All waste will be managed according to local regulations, and hazardous materials will be safely stored and disposed of in compliance with environmental standards.

- Use of other resources and materials:

The construction phase will require concrete (for rocky terrain), steel structures, gravel (if necessary for stabilization), fuel for machinery, and other necessary construction materials. Asphalt may be needed for access roads, but this depends on site-specific conditions.

- Supply of materials and equipment:

All materials except the inverters will be sourced domestically. The primary materials include photovoltaic panels, steel construction elements, transformers, cables, control panels, lighting equipment, and CCTV components. The inverters will be imported.

- Test and commissioning:

Once installation is completed, the system will undergo a series of tests to ensure proper functioning. This includes testing the photovoltaic panels, inverters, transformers, and other electrical systems to confirm efficiency and compliance with sub-project specifications.

- Decommissioning of temporary construction facilities:

Upon completion of construction, any temporary facilities or structures, such as storage containers or worker accommodations, will be dismantled and removed from the site. Waste materials generated during decommissioning will be managed according to waste management plans.

3.1.2. Construction Facilities

The information in the Table provides detailed information about temporary and permanent facilities to be used during the construction process. When construction is complete, all temporary facilities (such as labor camps, machine parks, material storage facilities) will be dismantled and removed from the site. If subcontractor camps or

temporary material storage areas are used outside the sub-project area, these areas will also be restored to their former condition at the end of construction. Permanent facilities will be used only for the storage of equipment and spare parts needed during the operation phase, and no other long-term storage areas are planned. Information on construction facilities are separately provided in Table 11.

Table 11. Construction Facilities

Type	On-site or Off-site	Temporary or Permanent	List of Facilities
Construction Camp Site	On-site	Temporary	- Prefabricated worker accommodations (e.g., dormitory, kitchen, dining area) - Restrooms and sanitation facilities - Storage area for tools and equipment
Storage Facility	On-site	Temporary	- Storage containers for construction materials (e.g., steel, cables, electrical components) - Fuel storage tanks (with safety measures for hazardous materials)
Machinery Parking Area	On-site	Temporary	-Designated area for parking heavy machinery (e.g., JCB, trucks, ramming machine)
Sub-contractor Camp Site	Off-site	Temporary	- Sub-contractor worker accommodations located outside the sub-project area (if applicable, e.g., nearby rented facilities)
Laydown Area	Off-site	Temporary	-Off-site laydown areas for storing large equipment or materials temporarily before use (if necessary)
Permanent Storage Area	On-site	Permanent	- Permanent storage for spare parts and maintenance tools after sub-project completion (if applicable) •

A layout of the construction camp site is to be provided by Design Supply Install (DSI) Contractor as -mobilization plan.

3.2. Operation Phase

3.2.1. Operation Activities

Operation activities primarily include the regular operation and maintenance of the solar power plant. This includes periodic panel cleaning, vegetation control, site security, and equipment maintenance. Solar panel cleaning is essential for maintaining optimal energy production and will typically be done using water, sourced from tankers due to the absence of a permanent water supply on-site. No chemicals or cleaning solutions are expected to be used, as only water and cleaning equipment will be required. Cleaning activities will be scheduled periodically, depending on environmental factors such as dust accumulation. For vegetation control, mechanical methods such as mowing or trimming will be employed to prevent overgrowth that could obstruct solar panel efficiency. Herbicides are not

anticipated to be used. The site will be secured with fencing and gated access points to prevent unauthorized entry. CCTV security cameras will be installed throughout the site, and remote monitoring will be implemented to enhance security. Security personnel may be present on-site, or remote surveillance could be utilized depending on sub-project needs. A control building housing the monitoring systems (SCADA) will ensure continuous oversight of energy production and system performance.

3.2.2. Operation Facilities

Operation facilities are described in Table 12.

Table 12. Operation Facilities

Component	Characteristics
Solar panels	6360 panels each 500 Watt
Mounting structures	95.4 Tonnes of Steel Structure
Inverters, transformers, etc.	30 inverters each 100 kVA
Control room, building, system, etc.	SCADA System
Energy monitoring system	The SCADA system will also function as the energy monitoring system, providing real-time data on energy output and system status.
Grounding system	A grounding system will be implemented to protect the plant's electrical equipment from electrical faults.
Lightning protection system	Lightning Rods
Fire preparedness and firefighting facilities	Fire Extinguisher
Security facilities	CCTV, Site Fence, Lighting System

3.3. Labor Requirements

Number of workers (at peak) that will work on site during the construction and operation phases of the Subproject are provided in the Table 13.

Table 13. Labor Requirements of the Subproject

Phase	**Number of Workers** (including contractors and subcontractors)	**Planned Accommodation Arrangement**
Construction Workers (at peak)	20	On-site temporary accommodation (prefabricated camp or temporary facilities for workers)
Operation Workers (at peak)	4	Off-site accommodation (no permanent on-site housing, workers commute as needed)

3.4. Land Acquisition Status

The parcels to be used within the scope of Afyonkarahisar Municipality Solar Power Plant Sub-Project are located in İnaz (Demirçevre) Neighborhood and consist of land numbered 671 Block 1. These lands are owned by Afyonkarahisar Municipality. The sub-project site was selected in a mountainous area where no agricultural activities are carried out and in a way that would not harm the agricultural production or other activities in the surrounding area. Documents regarding the ownership of the land are also included in the annexes of the sub-project and the process was carried out in accordance with legal regulations. Moreover, there is no need for expropriation of the access road. As part of the sub-project, the non-asphalt portion of this road will be improved by stabilizing and asphalted to make it suitable for access, and these works will be carried out by the Afyonkarahisar Municipality. Figure 1 shows asphalted and unpaved roads.

The route map and national grid connection location are shown in Figure 3 details the sub-project area and pylon locations, passing through parcels 350/77 and 350/78 which located in the Sadıkbey Neighborhood, both registered under the Treasury. A notation on the parcels permits the passage of the ETL, as referenced in Annex B.4.

Land acquisition status of the parcels to be used by the Subproject is summarized in Table 14.

Table 14. Land Acquisition Status for the Subproject

Subproject Component	Lot/ Parcel No.	Current Land Ownership (e.g. Applicant Sub-borrower, Private Person, Legal Entity), Treasury, Non-registered, Other)	Type of Parcel (according to Title Deed) (e.g. Agricultural, Pasture, Raw Soil, etc.)	Land Acquisition Method (e.g. Purchase, Lease, Allocation, Easement Rights, etc.)	Title Deed Area of the Parcel (m^2)	Area to be Used by the Subproject (m^2)	Status of Land Acquisition
SPP Area	**671/1**	Legal Entity (Afyonkarahisar Municipality)	Raw Soil	Municipal land	25,355.53	25,355.53	Land owned by the municipality

ETL	**350/77**	Treasury Land	Forest	Easement Rights	524.308,01	14,563 m²	A notation regarding the easement right held by TEİAŞ has been placed on the property covering an area of total 14,563 m² as seen in the Annex B.4.
	350/78	Treasury Land	Raw Soil	Easement Rights	4704,84		

3.5. Permitting Status

Status of permits, licenses, approvals required to be in place before start construction is presented in Table 15.

Table 15. Status of Permits for the Construction Phase

Permit, License, Approval	Status (In place, Not in place)	Remarks/ Notes
EIA Decision for the Power Plant	EIA is not Required Decision	The EIA Exemption Decision states that the sub-project falls under the annexed list of the EIA Regulation (published in the Official Gazette on 25.11.2014, No. 29186). After reviewing the Project Introduction File, it was determined that the proposed mitigation measures for environmental impacts are sufficient. As a result, it was concluded that there is no need to prepare an EIA report, and the sub-project was exempted from further environmental review under Article 17 of the regulation. The relevant decision is given in the Annex B.1.
Necessary Title Deed Regulations	In place	The title deed document regarding the sub-project area is in the Annex C.
Permit, License, Approval	In place	The Permit Document related to the Energy Transmission Line has been obtained from the Planning and Urbanism Department of Afyonkarahisar Municipality. The document seen in the Annex B.2.
Connection Agreement with Electricity Distribution Company (OEDAŞ)	In place	Details of the agreement are given in the Annex B.3.

4. ESMP MATRIX: RISK AND IMPACTS, MITIGATION AND MONITORING

As the Subproject involves both construction and operation activities, the ESMP consist of two components applicable to respective Subproject phase, as follows:

- Construction ESMP Matrix
- Operation ESMP Matrix

Roles and responsibilities related to implementation of this ESMP is defined in Section 5.2.

Implementation arrangements for ESMP implementation are described in Section 1.5.

The contractor's E&S management plans and procedures that will support implementation of the E&S assessment documents are listed in Section 4.5.

4.1. Construction Phase

4.1.1. Environmental and Social Impacts and Risks

4.1.1.1. Soil erosion, loss and contamination

The major impact on soil could be the potential topsoil loss at the footprints of the Subproject where excavation will be carried out. Excavated soil may be exposed to agents of erosion, mostly water and wind. Due to the involvement of heavy machinery during the construction phase, soil contamination may be seen due to accidental oil leakages in the areas. The impacts on soil will be minimal and localized in the areas where construction will take place only.

The potential impacts of the Subproject on soil environment are summarized below:

- Soil compaction as a result of topsoil stripping, levelling, excavation and filling activities, work of construction machinery,
- Mixing of soil layers as a result of excavation and filling activities,
- Soil contamination as a result of oil or fuel leaks or spillage that may result from incidents and unexpected events,
- Soil pollution which may occur in case of uncontrolled storage or disposal of solid and/or liquid wastes to be generated within the scope of the Subproject, and
- Erosion potential due to earthworks.

4.1.1.2. Impacts on Natural Habitats

There might be minimal vegetation loss during the construction phase for each Subproject, as the area is not pastureland, and there is no cultivation. Vegetation will not be harmed except where access roads or actual construction areas need to be cleared. The cleared areas will ensure the construction work can be performed smoothly. Although impacts on vegetation are expected to be minimal, the construction works will still involve clearing of bushes, removal of topsoil, excavation, and mass haulage in some areas. These activities may expose the land to elements of erosion, such as wind and water, thus triggering the process of land degradation. The impacts that may occur due to spillage or leakage of chemicals and hazardous materials, along with poor waste/wastewater handling and disposal, could range from low significance to high significance, depending on the magnitude (e.g., amount of spillage, toxicity level of the spilled chemical). The impact of Subproject activities on ecological components is related to the size of the impact and the vulnerability of the recipient.

4.1.1.3. Dust and exhaust gases emission

During construction, there will be material handling and movement of construction equipment at the Subproject sites. This will result in fugitive dust emissions, as well as exhaust emissions from heavy construction machinery. The primary emissions from the exhaust gases of vehicles will include NO_2, CO, HC, SO_2, and PM. Nearby houses could be impacted by these emissions, along with bio-aerosols and odors that might deteriorate air quality during waste collection and transportation.

4.1.1.4. Noise Pollution

During the construction phase noise pollution may occur, necessary precautions will be taken and procedures will be followed.

4.1.1.5. Impacts associated with water, energy and raw materials use

Employees' needs and dust suppression will create water supply requirement. Construction phase activities will require resource consumption such as concrete, reinforcement, structural steel, ferrocement, prestressed concrete, energy etc. Civil works at the Subproject site could be a risk of contaminating the clear river water with cement and muddy waters or soil movement. Increase in suspended particles due to construction works, risk of human contamination from construction camps and production of wastewater originated from the workers might affect the surface water and groundwater quality especially where the Subproject are close to natural water bodies.

4.1.1.6. Waste

During construction phase of the Subproject, activities such as vegetation clearance, levelling, construction and installation of main operation and auxiliary units, procurement, transportation and assembly of units and equipment will be carried out. Solid waste types expected to be generated within the scope of these activities are municipal wastes, packaging wastes of system equipment (e.g. wood, cardboard, plastic, etc.), hazardous wastes (e.g. damaged panels), special wastes, excavation and construction wastes (e.g. scrap metal, wood, concrete waste, etc.), and waste system equipment (panels, cables, electronic components). Hazardous and special wastes may contain chemical substances (e.g. paint, solvent, panels, inverters etc.) or packaging materials and cloths contaminated with oils, waste oils resulting from operation and maintenance of machinery and vehicles, solvents, accumulators, batteries, filters, machine parts.

4.1.1.7. Biodiversity

The sub-project area is not pastureland, and there is no significant vegetation or cultivation. Due to the nature of the sub-project site, the construction activities are not expected to have a notable impact on biodiversity. There are no rare or vulnerable species in the area that would be affected by the construction works. The impact on ecological components is anticipated to be minimal and limited primarily to dust, noise, and air pollution, which will mostly affect nearby residential areas rather than any significant biodiversity.

4.1.1.8. Water Resources

The sub-project area is located close to a dam that was designed as an artificial beach in the past, as seen in Figure 9. However, the elevation difference between the sub-project area and the dam reduces the risk of negative impacts on the dam during the construction and operation phases to a very low level. Despite this, various preventive measures will be implemented against the possibility of pollution of water resources during construction activities in order to completely eliminate possible risks, considering environmental sustainability and safety requirements.

4.1.1.9. Occupational Health and Safety and Labor

Construction works can cause incidents and accidents that may threaten the health and safety of workers if measures are not taken proactively.

Potential health and safety risks during the construction have been listed below.

- Working at height,
- Moving objects,
- Slips and trips,
- Noise vibration and exposure to dust,
- Materials handlings,
- Electricity,
- Traffic related risks due to increased traffic,

Mitigation measures and occupational health and safety issues are managed in line with the Labor Management Procedure of the Subproject which is in compliance with the national legislation, Occupational Health and Safety Law (Law No: 6331, Date of

Enactment: 20/06/2012), World Bank ESS2 and World Bank Group General Environmental Health and Safety Guidelines and ILBANK's ESMS.

4.1.1.10. Community Health and Safety

The sub-project is expected to bring benefits to the community by improving access to municipal services, potentially enhancing local business opportunities and infrastructure development in the region. However, some potential impacts during the construction phase have been identified, which could affect Community Health and Safety (CHS). These include:

- Road damage and increased traffic: Potential for traffic congestion and minor risks of road traffic accidents due to the transportation of materials and equipment.
- Emergency situations: Contextual risks such as earthquakes or fires, which could affect both workers and the community.
- Disruption of underground utilities: Potential damage to existing public utility cables and pipes during excavation, leading to temporary disruption of services.
- Noise and vibration: Construction activities could temporarily impact community comfort, especially near sensitive areas like schools or residences.
- Pressure on local infrastructure: Minor increased demand on community health and sanitation services due to the presence of temporary workers.
- Community interaction risks: Low-level risks related to interaction between temporary workers and the community, though these are limited due to the relatively small size of the workforce (~20 workers).
- Access restrictions: Temporary challenges to community access to houses, businesses, or schools due to construction activities.
- Potential vulnerable groups: Ensuring no disproportionate impacts on vulnerable groups within the community during construction activities.

4.1.1.11. Labor and Working Conditions

During the construction phase, labor and working conditions can be challenging, and several risks may arise, including:

- Electrical Hazards: Workers may face risks related to installing electrical systems and high-voltage cables.

- Working at Heights: Installing solar panels often involves working at heights, either on elevated structures or raised ground platforms, which increases the risk of falls.
- Heavy Equipment and Machinery: The use of cranes, forklifts, and other machinery to move panels and other equipment could lead to accidents or injuries if safety protocols aren't strictly followed.
- Heat Exposure: Since solar power plants are typically located in areas with high solar intensity, workers may be exposed to extreme heat, leading to heat-related illnesses such as dehydration, heatstroke, or exhaustion.
- Migrant Workers: In many large-scale projects, temporary or migrant workers are employed. Unfair treatment of these workers can result in deprivation of housing, sanitation, and other prohibited rights.

4.1.1.12. Traffic

Traffic congestion and temporary interruptions from construction phases of the investments and which could potentially cause annoyance, disruption, health and safety impacts, as well as economic impacts. The use of construction vehicles and machineries in Subproject site may cause traffic reducing movement and flow of vehicles. This is likely to cause increased frequency and severity of accidents.

4.1.1.13. Loss of Land and Livelihoods

The potential impacts of the sub-project on land use are expected to be minimal compared to more extensive infrastructure projects. While there may be minor alterations due to the construction of access roads or temporary facilities, the sub-project will not cause significant land or livelihood loss. The sub-project area is not used for farmland or grazing, and the lack of cultivation further reduces the impact on local assets or livelihoods. Vegetation loss will be limited, and soil erosion is expected to be minimal.

4.1.1.14. Vulnerable groups

Certain vulnerable groups such as disabled people, children or elderly people, certain minorities and groups with livelihood dependencies in the Subproject region might be affected during the construction phase.

The SEP document will be prepared together with this ESMP document that we have prepared specifically for the subproject, and together, it will take into account any impacts that may arise due to construction works in relation to the daily life patterns of potentially vulnerable groups (e.g. school-age children commuting to school).

4.1.1.15. Cultural Heritage

The sub-project is not expected to have any impact on these cultural heritage sites. The construction activities are planned to take place at a sufficient distance from these landmarks, ensuring that their structural integrity and historical value remain unaffected. Additionally, all necessary precautions will be taken during construction to avoid any indirect impacts, and the sub-project will comply with cultural heritage protection regulations. Thus, the sub-project's effect on these important sites is anticipated to be negligible.

4.1.1.16. Technical and Social Infrastructure Services

The SPP Sub-project is expected to have minimal negative impacts on existing technical and social infrastructure services. The construction phase may temporarily increase demand for local utilities, such as water and electricity, but this is likely to be manageable within the capacity of existing services. Additionally, the sub-project will not significantly strain social infrastructure, such as healthcare or educational facilities, due to the limited number of workers and the absence of permanent settlements. In the long term, the sub-project may contribute positively by improving the reliability of the regional power supply, potentially creating opportunities for new infrastructure development and enhancing local services.

4.2. Operation Phase

4.2.1. Environmental and Social Impacts and Risks

4.2.1.1. Waste

During the operation phase, waste generation will primarily include maintenance-related waste, such as packaging materials from equipment and potentially hazardous materials like used lubricants, cleaning agents, and damaged solar panels..

4.2.1.2. Air Quality, Odor

The sub- project is expected to have a positive impact on air quality during the operation phase, as it will generate renewable energy without emitting pollutants. No significant odors are expected, and there will be no combustion-related emissions, making this phase largely neutral in terms of air quality impacts.

4.2.1.3. Noise

Noise levels during the operation phase will be minimal, primarily limited to the occasional maintenance activities, such as the cleaning or repair of solar panels and inverters. The

noise generated will be negligible and is not expected to cause any disturbance to the surrounding communities.

4.2.1.4. Soil and Water Pollution

The risk of soil and water pollution during the operation phase is low, as there will be no significant use of chemicals or water. Any potential leaks from equipment (e.g., transformers or inverters) can be seen.

4.2.1.5. Climate Change

The Sub-project will contribute positively to the fight against climate change by producing clean, renewable energy. By offsetting greenhouse gas emissions from fossil fuel-based energy sources, the sub-project will play a role in reducing the region's carbon footprint.

4.2.1.6. Water Resources

Water usage during the operation phase will be minimal, mostly limited to cleaning solar panels at periodic intervals. As no nearby water bodies will be affected and water consumption will be low, the sub-project will not have any significant impact on local water resources.

4.2.1.7. Biodiversity

The operation of the Sub-project is not expected to impact biodiversity significantly. The minimal disturbance caused by occasional maintenance activities will not threaten local wildlife or habitats. Vegetation within the sub-project area will remain stable, and no additional habitat loss is expected.

4.2.1.8. Occupational Health and Safety

During the operation phase, the main occupational health and safety risks will be associated with routine maintenance and inspections. These risks include potential hazards related to the handling of electrical equipment, working at heights, and exposure to hazardous environments. Such risks could lead to accidents, injuries, or long-term health issues for workers if not properly managed.

4.2.1.9. Labor and Working Conditions

During the operation phase, the main risks associated with labor conditions include the potential for non-compliance with national regulations or international standards and insufficient oversight of fair wages or proper working conditions. Employment opportunities will primarily consist of maintenance and monitoring roles, which could limit

job creation and result in minimal economic impact. No significant labor influx is anticipated, reducing the risk of associated social pressures or conflicts.

4.2.1.10. Traffic

Traffic impacts will be minimal during the operation phase, with occasional vehicle movements for maintenance purposes. This is expected to have a negligible effect on local traffic patterns and road safety.

4.2.1.11. Vulnerable groups

During the operation phase, no significant adverse impacts on vulnerable groups in the community are anticipated, as the sub-project is expected to operate with minimal disruption to daily life. However, potential risks may arise in the unlikely event of emergencies, such as a fire caused by a solar panel malfunction, which could disproportionately affect vulnerable groups, including people with disabilities, the elderly, and those in need of care. These risks could pose challenges to their safety and well-being if not adequately addressed.

4.2.1.12. Cultural Heritage

No additional impacts on cultural heritage sites are expected during the operation phase. The sub-project site is located far enough to avoid any disturbance, and ongoing operations will not interfere with these culturally significant landmarks.

4.2.1.13. Technical and Social Infrastructure Services

The Sub-project will contribute positively to technical infrastructure by providing renewable energy to the grid, supporting regional energy demands. In the long term, the sub-project could improve local power supply reliability, enhancing the potential for new infrastructure development in the region.

4.3. Construction ESMP Matrix

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
ESS2 - Labor and Working Conditions				
	General OHS risks			
1				
	OHS - Physical Hazards: Electrical Hazards Electric Shock Spark and Fire Risk Communication and Security Systems Failure Equipment Failure	• Construction workforce • Employees • Community	**General Measures** • Ensure that all energized electrical devices and lines are marked with warning signs • Ensure that the devices are locked (de-charging and leaving open with a controlled locking device) and labeled (warning sign placed on the lock) during service or maintenance. • Ensure that high-voltage equipment ('electrical hazard') and service rooms where access is controlled or prohibited are properly labeled. • Ensure that all buried electrical cables are thoroughly identified and marked prior to any excavation work. **Site-specific Measures** • Ensure that regular electrical safety inspections should be conducted in the sub-project area. • Ensure that continuous inspections should be conducted to ensure that employees use appropriate personal protective equipment (PPE). • Ensure that emergency communication plans should be developed in the event of electrical accidents.	• OHS Management Plan • LMP • Emergency Response Plan
2				
	OHS - Physical Hazards: Rotating and Moving Equipment	• Construction workforce	**General Measures**	• Emergency Response Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures

	Fall Risk and Injury Risk
	Equipment Failure
			• Ensure that before operating the equipment, all employees should be required to comply with safety protocols; necessary checklists should be used before operating the machine.
			  ○ Ensure that if a machine or equipment has an exposed moving part or an exposed pinch point that could endanger the safety of any worker, the machine or equipment is equipped with and protected by a guard or other device that prevents access to the moving part or pinch point. Guards should be designed and installed in conformance with appropriate machine safety standards.
			  ○ Ensure that where possible, equipment is designed and installed to enable routine service, such as lubrication, to be carried out without removing guarding devices or mechanisms
			Site-specific Measures
			• Ensure that the necessary information is provided to the employees in order to implement the project-specific optimized Emergency Response Plan in the event of a possible problem.	

3				
	OHS - Physical Hazards: Welding and Hot Works Fire Risk Physical Injuries Smoke and Gas Exposure Fall or Injury Risk	• Construction workforce	**General Measures** • Ensure that appropriate eye protection, such as welder's goggles and/or a full-face eye shield, is provided for all personnel involved in or assisting with welding operations and they should inform about the usage of the equipment according to OHS. **Site-specific Measures**	• OHS Management Plan • Emergency Response Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			• Ensure that fire safety equipment such as fire extinguishers, water or foam guns should be readily available in the welding area. Accessible areas for fire safety equipment should be clearly marked. • Ensure that all employees should be trained and informed about welding operations and the safe management of hot work. In addition, drills should be organized on emergency action plans.	
4				
	OHS - Physical Hazards: Industrial Vehicle Driving and Site Traffic Traffic Accident Damage to sub-project equipment	• Construction workforce	**General Measures** • Make sure drivers undergo medical supervision and it should be ensured that there are no extra working hours that will cause eye strain. • Ensure that rights of way, site speed limits, vehicle inspection requirements, operating rules and procedures (e.g. prohibiting operation of forklifts with forks down), and control of traffic patterns or direction are established and drivers participating in the sub project will be informed about road safety, speed limits and traffic rules and requirements to be followed during the project. **Site-specific Measures** • Ensure that pedestrian paths and safe crossing points should be determined within the construction site, and the use of these paths should be encouraged • Ensure that regular inspections of all industrial vehicles should be carried out and their safe operation should be ensured.	• LMP • Emergency Response Plan
5				

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
	OHS - Physical Hazards: Ergonomics, Repetitive Motion, Manual Handling Lifting Lifting Operations OHS Risks	• Construction workforce	**General Measures** • Ensure that usage of appropriate equipment (e.g. lifting equipment) during transportation and installation of panels to eliminate or reduce the effort required to lift materials, hold tools and work objects, and that more than one person is lifting if weights exceed thresholds. • Ensure that rest and stretch breaks are incorporated into work processes and job rotation is in place. **Site-specific Measures** • Ensure that Areas should be created near the work area where employees can rest and stretch. • Ensure that all equipment used is well-maintained to support safe and efficient operations.	• LMP • Emergency Response Plan
6				
	OHS - Chemical Hazards Chemical Exposure Fire and Explosion Risks Environmental Pollution	• Construction workforce	**General Measures** • Ensure that chemical hazards are communicated to workers through labeling and marking according to nationally and internationally recognized requirements and standards, including International Chemical Safety Cards (ICSC), Material Safety Data Sheets (MSDS/SDSs) or equivalent. Any means of written communication should be in an easily understood language and be readily available to exposed workers and first-aid personnel. • Ensure that employees are trained in the use of available information (such as MSDSs/SDSs), safe working practices and proper use of PPE **Site-specific Measures**	• Emergency Response Plan • OHS Training

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			• Ensure that an effective emergency response plan should be prepared for chemical spills or accidents, and regular drills should be conducted to ensure the applicability of this plan. • Ensure that appropriate disposal methods should be determined for the waste of the chemicals used, and these methods should be implemented.	
7				
	Working Conditions			
	General Working Conditions Unfair wages, inappropriate working hours, not usage of leave entitlements, and no protection against unfair treatment, Inadequate	• Construction workforce	**General Measures** • Ensure that all legal rights of workers are guaranteed and that obligations between employers and workers are clearly defined by fair contracts. • Ensure that workers toolbox trainings will be implemented on weekly basis to consist of the OHS Plan and Labor Conditions. • Ensure that Child labor, forced labor and unregistered labor will be prohibited as of the LMP. • Ensure that workers' rights to form and join unions are supported and that workers will not be discriminated against in this process. • Ensure that design and construction of accommodation facilities for construction workers in accordance with national and international standards (World Bank's IFC Performance Standards). **Site-specific Measures**	• SEP • Labor Management Plan (LMP)

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			• Ensure that the Grievance Mechanism for workers will be implemented. The workers will be informed about the grievance mechanism at the time of recruitment, and it will be made easily accessible to them. • Ensure that in cases where workers need accommodation, safe, hygienic and adequate living standards will be provided. • Ensure that provide adequate personal space and privacy with partitions for resting . Appropriate heating and cooling systems will be implemented to maintain a comfortable environment. Additionally, access to clean, potable water will be guaranteed , alongside well-maintained sanitation facilities including toilets and hand-washing stations.	
8				
	Gender-based violence (GBV); sexual exploitation and abuse/sexual harassment (SEA/SH) on employees; gender inequality	• Construction workforce	**General Measures** • Ensure that the sensitization of the Managements of Construction Contractor and both Consultants on GBV and SEA/SH issues will be provided. • Ensure that all workers will sign and be informed about the Code of Conduct. **Site-specific Measures** • Ensure that a Worker's GM will be implemented to capture GBV and SEA/SH related complaints. • Ensure that training regarding GBV and SEA/SH will be provided to all workers.	• SEP

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
9				
ESS3 - Resource Efficiency and Pollution Prevention and Management				
	Air Emissions and Ambient Air Quality			
	Temporary nuisance on surrounding industrial facilities due to **dust emissions** during earthworks and **gaseous emissions** from vehicles and machinery	• Construction workforce • Communities • Flora and fauna	**General Measures** • Ensure that implementation dust suppression measures, such as water spraying on unpaved roads and loose materials, to control dust emissions during construction activities. **Site-specific Measures** • Ensure that air quality standards and permits to be applied in the sub-sub-project area should be determined and adhered to in accordance with local and national regulations. • Modern equipment and vehicles will be used to meet the relevant emission standards in construction works, • Grievance mechanism will be processed. Works will be stopped in case of a grievance, until measures are in place.	• Construction Plan and Schedule • SEP
10				
	Energy Conservation			
		• Communities	**General Measures** • Ensure that all materials and equipment used in the project comply with international energy efficiency standards. **Site-specific Measures** • Ensure that the positioning of solar panels should be optimized to receive maximum sunlight.	• Construction Plan and Schedule

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			• Ensure that energy efficiency should be ensured that the equipment and machinery used in the sub-project are selected.	
11				
	Wastewater and Ambient Water Quality			
	Generation and discharge of wastewater due to construction activities Pollution of water bodies around the project site	Surface water resources	**General Measures** • Ensure water is used efficiently to reduce the amount of wastewater generation. • Ensure that waste minimization and process modification, including reduction of the use of hazardous substances, is carried out to reduce the load of pollutants requiring treatment. • Oil, cement particles and other contaminants that may be generated during construction should be stored in a place away from surrounding water bodies in accordance with regulations or should be discharged appropriately. **Site-specific Measures** • Ensure that a specific plan for wastewater management during construction should be established and implemented. This plan should include arrangements for the collection, storage and discharge of wastewater. • Ensure that workers should be trained in wastewater management and protection of environmental water quality.	• Waste Management Plan
12				
	Hazardous Materials Management			

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
	Generation of hazardous waste during construction activities	• Construction workforce • Communities • Flora and fauna	**General Measures** • Ensure that workers are provided with hazard communication and training to prepare them to recognize and respond to chemical hazards in the workplace. Programs should include aspects of hazard identification, safe operating and materials handling procedures, safe work practices, basic emergency procedures, and special hazards unique to their jobs. • Ensure that permitted maintenance activities such as hot work or confined space entries are defined and implemented • Ensure that appropriate PPE (footwear, masks, protective clothing and goggles in appropriate areas), emergency eyewash and shower stations, ventilation systems and sanitary facilities are provided • Ensure that accident and incident reports, as well as occupational hazard monitoring and audit records, are maintained for at least five years to verify the effectiveness of prevention and control measures. **Site-specific Measures** • Ensure that specific areas should be allocated for the safe storage of hazardous chemicals and these areas should be marked with relevant signs. • Ensure that special training modules should be prepared and implemented at regular intervals to ensure that workers receive specific training on hazardous substances.	• Waste Management Plan • Emergency Response Plan
13				

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
	Waste Management			
	Generation of waste during construction activities	• Construction workforce • Communities • Flora and fauna	**General Measures** • Ensure that a waste management hierarchy is established that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of waste. • Ensure that waste segregation and storage in temporary waste storage areas is managed according to the standards set out in the GIIP and relevant legislation. **Site-specific Measures** • Ensure that specific areas should be created for temporary storage of waste and these areas should be marked with appropriate signs. • Ensure that Special training programs should be prepared for employees on waste management and separation procedures and should be implemented at regular intervals. • Ensure that recycling processes and facilities should be developed in cooperation with local recycling facilities and these processes should be integrated into sub-project activities.	• Waste Management Plan
14				
	Noise			
	Noise generation due to construction	• Local community • Sub-project Site Surroundings	**General Measures** • Manage the potential impact of noise, selecting equipment with lower sound power levels • Ensure implementation of Subproject-specific SEP in order to address any noise-related grievance and plan/take corrective actions, where necessary. • Ensure consultation with PAPs prior to the start of and during the construction activities to be	• Stakeholder Engagement Plan

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			conducted at this location in order to inform stakeholders about the scope and duration of the activities and mitigate the potential impacts for the period of construction **Site-specific Measures** • Ensure that construction schedules should be planned to reduce noise production during the early hours of the day or away from residential areas. • Ensure that if deemed necessary, noise barriers will be installed around construction sites.	
15				
ESS4 - Community Health and Safety				
	Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse/Sexual Harassment (SEA/SH)			
		• Communities	**General Measures** • Ensure that ethical rules and public communication training will be provided to all employees to prevent gender-based violence, harassment, abuse, etc. in the workplace. • Ensure that workers will be required to sign and adhere to the code of conduct. • Ensure that regular awareness raising sessions will be conducted on site in GBV prevention and other social issues. • Ensure that grievance mechanism will be implemented to receive any complaints in this aspect.	• SEP • Code of Conduct
16				
	Traffic Safety			

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
	Road safety - Traffic density caused by heavy tonnage vehicles -Transportation of hazardous materials from the construction site to the relevant locations	• Local Communities • Road Users • Road Infrastructure	**General Measures** • Ensure that people who use construction equipment must have a professional qualification certificate. Improving driving skills and requiring licensing of drivers • Ensuring adequate transport vehicle specifications. • Adopting limits for trip duration and arranging driver rosters to avoid overtiredness which extra working hours that will cause eye strain should be avoided. • Roads passing through settlements will be avoided whenever alternative routes are available. If Sub-project traffic routing through the settlements is not avoidable, all necessary traffic management measures will be taken. The local communities and if necessary local authorities will be informed about the transportation routes and schedule • Scheduling of traffic will be undertaken to avoid the peak hours on the local road network wherever practicable (e.g. early in the morning with the daylight). Scheduling information and planned traffic disruptions will be communicated well in advance to all related parties including authorities, local communities and nearby businesses. • Develop sub-project specific “Hazard Assessment and Management Actions” in order to identify the potential hazard involved in the transportation of hazardous materials and actions/ preventive measures and emergency response procedures by reviewing:	• Stakeholder Engagement Plan • LMP

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
			○ the hazard characteristics of the substances identified, ○ The history of accidents, both by the company and its contractors, involving hazardous materials transportation ○ The existing criteria for the safe transportation of hazardous materials, including environmental management systems used by the company and its contractors	
17				
	Labor Influx			
	Impacts on local economy, livelihood sources and employment	• Communities	**General Measures** • Ensure that local employment will be prioritized as much as possible for unskilled, semi-skilled and skilled workers within the scope of the Sub-project. • Ensure that SEP will be implemented for regularly engaging with communities and running the grievance mechanism.	• SEP
	Impacts on **vulnerable** and **disadvantaged** individuals and groups	• Communities	• Ensure that recruitment policy will include non-discriminatory hiring practices, training programs tailored to the needs of vulnerable groups, implementing and providing support services such as transportation or childcare to facilitate participation in the workforce. • Ensure that for the vulnerable and disadvantaged groups establish an accessible grievance redress mechanism where individuals can voice concerns or report issues anonymously and without fear of retaliation and provide multiple channels for reporting grievances, such as phone, email, or community representatives.	• SEP

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
18				
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources				
	Disturbance on biodiversity	• Flora and fauna	• Ensure that pre-construction surveys will be conducted to identify the presence and distribution of these species on the Sub-project site before construction begins. Habitats for these species will be designated, especially their nesting or burrowing sites. Disturbance or destruction of these habitats will be avoided during construction activities. Regular carcass monitoring will be carried out during both construction and operation phases to monitor potential bird collisions with solar panels or other infrastructure. • Ensure that construction work will be scheduled for periods of low wildlife activity, such as avoiding nesting seasons for birds or hibernation periods for mammals. • Ensure that vegetation removal will be minimized by conducting a thorough survey to avoid unnecessary clearing. • Ensure that natural vegetation will be restored upon completion of construction activities, enabling species to re-inhabit surrounding areas. • Ensure that barriers will be installed around known burrows or nesting sites to protect them from disruption during construction. These barriers can be temporary or permanent, depending on the duration of construction activities. • Sub-project construction sites and access roads will be separated from other areas with appropriate signboards, signs, and fences. personnel and vehicle access to this area will be limited with the construction site. • Habitat degradation will be reduced by keeping vehicles on access roads and minimizing pedestrian traffic in intact areas.	• Construction Plan and Schedule
19				

No	Impact Description	Receptor	Proposed Mitigation Measure	Relevant Plans/Procedures
ESS8 - Cultural Heritage				
	Impacts on cultural heritage	• Cultural heritage	• Ensure that Chance Finds Procedure will be applied in order to ensure timely identification and appropriate management of chance findings during Sub-project implementation. • Ensure that Chance Finds Procedure will be made a part of toolbox trainings during construction. • Ensure that construction work will be stopped immediately in case of any chance finds. • Ensure that the relevant Preservation Board or Museum Directorate will be informed immediately and the security of the area will be ensured by the Contractor. Construction work will not continue until official notification is received.	• Chance Finds Procedure
20				
ESS10 - Stakeholder Engagement and Information Disclosure				
	Insufficient activities and public consultation during construction Incomplete information about the social and environmental impacts of the sub-project during construction. Difficulty accessing information due to language barriers Risk of conflicts arising	• Communities	• Ensure that interaction / communication will be established with communities, and adequate timing will be planned for engagement activities. Additionally, regular consultations will be carried out with the authorities and communities regarding the subproject management. • Ensure that preparing of documents in understandable and local language. • Ensure that organizing periodic information meetings. • Ensure that there is preparation of clear and transparent information materials. • Establishing effective grievance mechanisms.	• SEP

4.4. Operation ESMP Matrix

Impact Description	Receptor	Proposed Mitigation Measure	Implementation Plans
ESS2 - Labor and Working Conditions			
OHS - Physical Hazards: Electrical Hazards - Improper Working Conditions - Work Injuries and Electricity Shock	Employees	• Ensure that relevant safety procedures will be implemented to prevent the risk of any injury to the workers by electricity shock during installation of electric equipment. • Ensure that danger signage will be installed in the electrical hazard areas and apply all safety measures to prevent exposures. • Ensure periodic inspections of electrical equipment to prevent malfunctions and hazards.	• OHS Management Plan • Emergency Response Plan
OHS - Physical Hazards: Rotating and Moving Equipment Lifting Operations OHS Risks	Employees	• Ensure that safety procedures will be used for lifting operations. • Ensure that workers will be provided with all necessary PPE and safety materials. • A grievance mechanism will be established to which workers can apply when the necessary equipment or tools are not provided.	• Emergency Response Plan • SEP
OHS - Physical Hazards: Welding and Hot Works - Improper Working Conditions - Work Injuries	Employees	• Employees will be trained for their responsibility to report dangers. • Sources of ignition will be controlled. • Employees will be well trained in the firefighting measures.	• OHS Management Plan • Emergency Response Plan

Impact Description	Receptor	Proposed Mitigation Measure	Implementation Plans
OHS - Physical Hazards: Ergonomics, Repetitive Motion, Manual Handling Lifting Lifting Operations OHS Risks	Employees	• Ensure that application of safe handling techniques will be ensured. • Ensure that the use of appropriate PPE and safety materials will be ensured. • Ensure ergonomic practices are applied for occasional manual handling tasks.	• OHS Management Plan • LMP • Emergency Response Plan
General Improper Working Conditions	Employees	• Ensure that child labor, forced labor and unregistered labor will be prohibited as of the Labor Management Plan. • Ensure that toolbox training will be conducted periodically (e.g., monthly) to address OHS topics relevant to operation-phase activities. • Ensure that employees will be provided with documented information that is clear and understandable, regarding their rights under national labor law; including collective agreements, their rights related to hours of work, wages, overtime, compensation, and benefits as of startup of working relationship and when any material changes occur. • Ensure that the Grievance Mechanism for employees will be implemented. The employees will be informed about the grievance mechanism at the time of recruitment, and it will be made easily accessible to them.	• SEP • LMP
Gender-based violence (GBV); sexual exploitation and abuse/sexual harassment (SEA/SH) on employees; gender inequality	Employees	• Ensure that all workers will sign and be informed about the Code of Conduct. • Ensure that GM will be operated to capture GBV and SEA/SH related complaints. • Ensure that basic awareness training on workplace respect and equality, including GBV and SEA/SH, is provided to all employees during induction.	• SEP • Code of Conduct
ESS3 - Resource Efficiency and Pollution Prevention and Management			
Air Emissions and Ambient Air Quality			
Air Pollution (related to gases released into the air in the event of a possible fire or	Communities Flora and fauna	• Ensure that regularly inspect and maintain equipment to ensure optimal performance. • Ensure emergency response plans include measures for hazardous gas emissions. • Provide fire-resistant materials where possible to reduce harmful gas emissions during fire.	• Emergency Response Plan • SEP

Impact Description	Receptor	Proposed Mitigation Measure	Implementation Plans
similar) Dust Generation Odor Emissions			
Energy Conservation			
Energy inefficiency	Communities Flora and fauna	• Ensure that implement energy-efficient technology in all phases of the sub-project (e.g., inverters, transformers). • Ensure that monitor energy consumption regularly to detect and address inefficiencies. • Ensure that encourage the use of renewable energy in project-related auxiliary systems (e.g., lighting).	
Wastewater and Ambient Water Quality			
Wastewater generation	Communities Flora and fauna	• Ensure that septic tanks are regularly maintained and emptied to prevent overflow and contamination risks.	
Water use	Communities Flora and fauna	• Water will be used efficiently while cleaning the panels in order to avoid wasting water. • The solar panel cleaning will be wiper cleaning and water saving practice by using rubber blade water sprayers with very little amount of water.	
Hazardous Materials Management			
Hazardous Substances	Communities Operation Workforce Flora and fauna	• Types, quantities, and properties of materials to be stored will be documented. • A designated storage area will be established, equipped and used in order to safely store hazardous and toxic materials. • Appropriate containers, tanks, and bunding systems will be used in order to contain hazardous materials and prevent spills, leaks, or releases. • Proper disposal or recycling of hazardous materials will be implemented through licensed facilities.	• Emergency Response Plan • Waste Management Plan
Waste Management			

Impact Description	Receptor	Proposed Mitigation Measure	Implementation Plans
Waste generation (General)	Communities Flora and fauna	• A Temporary Waste Storage Area will be established on-site for storing wastes generated by site personnel. Wastes will be segregated and stored according to their types (e.g., domestic, packaging, hazardous). • Domestic waste will be collected in designated trash bins and transported to the municipal landfill in compliance with the Waste Management Regulation. • Recyclable waste, including packaging wastes, will be collected and temporarily stored in designated areas protected from precipitation. Licensed recycling companies will handle these wastes, following the Packaging Waste Control Regulation. • Waste batteries, accumulators, tires, medical wastes, and personal hygiene material wastes will be collected, stored, and managed separately in compliance with relevant regulations. • All waste will be collected, segregated, labeled, and stored on-site according to Turkish Environmental Regulations. .	• Waste Management Plan
Other wastes	Communities Flora and fauna	• A recycling program will be implemented for damaged panels to recover valuable materials and minimize landfill waste. • Agreements will be set with e-waste recycling facilities to ensure responsible disposal of electronic waste from inverters, batteries, etc. • The storage conditions for hazardous materials, such as lead-containing components in solar panels and electronic waste from inverters, will be managed by designating a clearly marked storage area. • Lead-containing components and electronic waste will be stored in robust, leak-proof containers that are labeled with appropriate hazard symbols and handling instructions. • For vehicles and machinery to be used, their maintenance, including tasks like oil changes and battery replacements, will be conducted outside the Sub-project area by qualified service providers. • Waste batteries and accumulators will be collected, stored, and managed separately in compliance with relevant regulations.	• Waste Management Plan
• ESS4 - Community Health and Safety			
Glare from solar panels which can be a safety hazard for drivers, pedestrians, and nearby residents, particularly if it impairs visibility or causes	Communities	• Proper panel orientation will be ensured and in case of needed anti-glare coatings will be used for road safety in the vicinity of the solar plant.	• Grievance Mechanism

Impact Description	Receptor	Proposed Mitigation Measure	Implementation Plans
discomfort			
Impacts on the local economy, livelihood sources and employment	Communities	• Existing roads leading to the Sub-project site will be improved such that the Sub-project will not restrict access to grazing land for local livestock grazers. • SEP will be implemented for regularly engaging with communities and running the grievance mechanism.	• SEP
Impacts on vulnerable and disadvantaged individuals and groups	Communities	• Recruitment policy will include non-discriminatory hiring practices, training programs tailored to the needs of vulnerable groups, implementing and providing support services such as transportation or childcare to facilitate participation in the workforce. • Corporate Social Responsibility (CSR) will be designed and implemented to contribute positively to the communities based on their needs such as improvement of roads and utilities.	• SEP
Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	Communities	• Ethical rules and code of conduct will be provided to all employees to prevent gender-based violence, harassment, abuse, etc. in the workplace. • Employees will be required to sign and adhere to the code of conduct. • Regular awareness raising sessions will be conducted on site in GBV prevention and other social issues • Grievance mechanism will be implemented to receive any complaints in this aspect.	• SEP
ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources			
• Disturbance on biodiversity	• Flora and fauna	• Exclusion fencing around the site will be maintained. Wildlife-friendly fencing will be ensured, that allow small animals like hedgehogs to pass through safely. • Sub-project access roads will be separated from other areas with appropriate signboards, signs, and fences. Personnel and vehicle access to this area will be limited. • Ensure that establish a grievance mechanism for community members to report to disturbance on biodiversity issues, ensuring that complaints are addressed in a timely manner.	SEP
ESS10 - Stakeholder Engagement and Information Disclosure			
• Insufficient stakeholder engagement activities and public consultation.	• Communities	• Interaction / communication will be established with communities, and adequate timing will be planned for engagement activities. Additionally, regular consultations will be carried out with the authorities and communities regarding the sub-project management.	• SEP

4.5. Monitoring and Reporting

The sub-borrower will conduct internal monitoring of Subproject's E&S performance and submit Periodic Monitoring Reports to ILBANK in line with the sub-financing agreement requirements. The information to be provided as part of reporting for the respective monitoring period will include the following:

- Up-to-date information on the Subproject and progress with Subproject implementation (e.g. status of construction, Subproject timeline, etc.),
- Status of compliance with legal requirements (e.g. Subproject permitting status, status and outcomes of audits done by national authorities, fines imposed by national authorities if any, etc.)
- Details of how the requirements of the IFI standards (e.g. WB ESSs) are being met on the basis of compliance with Subproject level Environmental and Social Action Plans (ESAPs),
- Incident and accident reports and statistics,
- Current Subproject level E&S organization and capacity (including information on capacity building and training),
- Progress with Subproject level stakeholder engagement activities and management of grievances, and
- Records on E&S non-conformities identified and general status of Corrective Action Plan implementation at Subproject level (in case of non-conformities).

Key performance indicators (KPIs) of this procedure will be monitored, verified, and evaluated within the scope of the Subproject monitoring stage. The KPIs for both construction and operation phases of the Subproject are presented in Table 16.

Table 16.Key Performance Indicators for Both Construction and Operation Phases of the Subproject

Monitoring Focus	KPI
Documentation	
Following ESMP Project specific plans will be developed and be in place.	Full compliance with Subproject's ESMP
Air Quality	
Air Quality incidents	Minimization and continued improvement in the number of the reported air quality related incidents.
Non-Compliance with air quality standards	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of air quality related community grievances
Violation on speed limit	Minimization and continued improvement in the number of reported violations on speed limit
Noise	
Noise and Vibration incidents	Minimize and continued improvement in number of reported noise and vibration related incidents
Non-Compliance with Project standards	Zero Non-Compliance Reports (NCRs) per year
Number of noise-related community grievances	Zero grievances per year
Community grievances	Minimization and continued improvement in the number of noise related community grievances
Water / Wastewater	
Spill incident	Minimization and continued improvement in the number of the reported water quality related incidents.
Non-Compliance with Subproject standards	Zero NCRs per year
Wastewater collection system	Zero grievances per year
Groundwater levels of the community/private wells	No significant adverse impact
Water quality analyses	Meeting set national and international water quality standards for surface and groundwater impacted and/or near the Subproject
Wastewater and Water loss records in network	Sustainable low wastewater and water loss records
Waste	
Waste Generation	Minimization of total waste generated Decrease in the ratio of hazardous waste generated to total waste (by contamination + by generation)
Waste Disposal	Increase in the ratio of recovered/reused/recycled waste to total waste generated
Soil Quality	
Spill incident	Minimization and continued improvement in the number of the reported soil quality related incidents
Non-Compliance with Subproject standards	Zero NCRs per year
Traffic	
Number of non-compliances against the mitigation controls identified in Traffic and Transport Management Plan	Decreasing number/ continuous improvement in number of reported non-compliances
Number of drivers found to be exceeding speed limits or driving unsafely	Zero exceedance per year
Number of road traffic accidents involving: Accidental injuries and deaths, Spillages (such as cargo or fuel), Wildlife-vehicle collisions.	Zero accidents per year

Monitoring Focus	KPI
Number of traffic-related grievances	Zero grievances per year
Health, Safety and Environment	
% of scheduled HSE Inspection	>90
% of attendance at HSE meetings	>90
% of closing of NCRs	100
Reporting safe observations	100%
Reporting unsafe observations	100%
Reporting near misses	100%
Reporting number of incidents	100%
Reporting number of accidents	100%
Reporting day-loss	100%
% of Toolbox attending	>90
% of Risk Assessment compliance	>90
% of Legal Requirements compliance	100%
Results of scheduled audits	>85
HSE training carried out to training matrix > 90% of all training to matrix	>90
% of attendance at scheduled trainings	>90
Engagement in HSE program by individual managers and supervisors	>90
Engagement in HSE program by contractor's	>90
Labor and Working Conditions	
Number of worker grievances closed out within the target timeframe	100% compliance with labor laws and regulations Zero unresolved health and safety incidents within the target timeframe 100% availability of required PPE 90% or higher worker satisfaction rate
Community Health and Safety	
Number of communicable and non-communicable diseases and injuries.	Negative Trend/No significant increase in communicable and non-communicable disease and injury rates per 1,000 residents per annum.
Number of community health safety & security grievances from local communities as recorded in the grievance management system.	Decreasing number/ continuous improvement in number of grievances
Number of reported community health & safety incidents	Zero incidents per year
Access to the Construction Site - Security Fence/ Protection Tape	Zero Number of unauthorized accesses to the Subproject area
Trainings	
Training records	Trainings on ESMP and SEP documents. Providing all trainings (including GM, GBV, SEA/SH) to all employees. 100% of scheduled training sessions conducted 80% or higher participant satisfaction rate

Monitoring Focus	KPI
	Zero participants without completion certificates if applicable
Disclosure	
Grievance Records, Disclosure meeting participant records, ESMP, SEP, GM will be disclosed at Project web site in two languages (English and Turkish).	All grievances closed-out within the target timeframe ESMP, Project specific SEP and GM will be prepared and disclosed at the Project web site
Vulnerable groups:	
Incidents, Grievances, Toolbox talks and trainings, Information/ disclosure	All grievances closed-out within the target timeframe Sufficient information provided to the VGs
Grievance mechanism	
Grievance Records, GM disclosure	All grievances closed-out within the target timeframe GM disclosure to the PAPs, stakeholders GM disclosure at Subproject web site
Cultural Heritage	
Existence of a Chance Find	Zero Grievance Records

Table 17. Construction Environmental and Social Monitoring Table

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Labor Force	• Employment records • Induction Training Plan • Accommodation conditions	Sub-project office at the site Camp site Accommodation area and rooms	• Document review • Visual observations • Interviews with workers	Monthly	100% compliance with labor laws and regulations 100% completion rate for induction and health and safety training 100% compliance with international accommodation standards (e.g., IFC/EBRD)	Afyonkarahisar Municipality Supervision Consultant Contractor	100% compliance with labor laws and regulations 100% completion rate for induction and health and safety training 90% or higher worker satisfaction rate 100% compliance with international accommodation standards 100% availability of required PPE	Included in the sub-project budget
	• Workers GM	Sub-project office Camp site Accommodation	• Grievance records • Interviews with workers	Daily	Zero unresolved health and safety incidents within the target timeframe	Afyonkarahisar Municipality Supervision Consultant Contractor	Zero unresolved health and safety incidents within the target timeframe 90% or higher satisfaction rate with grievance resolution process	Included in the sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Working Conditions • General OHS Risks • Lifting risks • Electricity Shock Risks • Fire risks • Manual handling risks	• PPE usage • OHS Trainings	Sub-project office at the site Camp site	• Document review for safety procedures • Visual observations to check measures are in place • Accident records Grievance records	Daily		Afyonkarahisar Municipality Supervision Consultant Contractor	% of scheduled HSE Inspection % of attendance at HSE meetings % of closing of Non Compliance Reports (NCRs) Reporting safe and unsafe observations % of Toolbox attending % of Risk Assessment compliance % of Compliance with Legal Requirements Results of scheduled audits HSE training carried out to training matrix	Included in the sub-project budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Waste management • Waste Storage Area • Waste management practices	• Adequate storage conditions • Leakages	Waste storage area	Visual observations Waste records	Daily visual observations Monthly records control	Zero leakage incidents allowed No overflow of bins; bins should be leak-proof	Afyonkarahisar Municipality Supervision Consultant Contractor	No overfill of bins Amount of waste stored Amount of waste collected	Included in the subproject budget
Soil protection from spills and leakages of oil and chemicals	• Oil stains on soil • Chemical spills on soil • Conditions of storage area for hazardous/toxic and wastes substances and wastes • Stormwater management system	Material storage locations and waste storage area within Sub-sub-project site Car park area	Visual observations	Daily	Zero visible oil/chemical stains on soil Storage areas must be leak-proof and compliant with WB ESS 3	Afyonkarahisar Municipality Supervision Consultant Contractor	Number of accidents and incidents of spills and leakages reported	Included in the subproject budget
Dust from construction activities and vehicle traffic	• Grievances of disturbance from dust and emissions	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily	Dust levels must comply with national air quality standards	Afyonkarahisar Municipality Supervision Consultant Contractor	Number of grievances received Number of grievances resolved	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Wastewater pollution	• Wastewater	Septic tanks	• By recording wastewater receipts (sewage vacuum truck transportation receipt).	Daily		Afyonkarahisar Municipality Supervision Consultant Contractor		Included in the subproject budget
Noise from site machinery	• Grievances of disturbance from noise generation from site machinery	Sub-project Site	• Grievance records • Visual observations for mitigation measures	Daily		Afyonkarahisar Municipality Supervision Consultant Contractor		Included in the subproject budget
Hazardous materials	• Labelling • Storage conditions	• Hazardous material storage area • Hazardous waste storage area	• Visual observations for mitigation measures	Daily		Afyonkarahisar Municipality Supervision Consultant Contractor		Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Community roads Traffic risks	• Approvals from government authorities • Traffic management plan • Damage on roads • Emergency Response Plan •	• Sub-project office at the site • Along the transportation routes • Grievance records	• Grievance records review • Visual observations • Interviews with mukhtar of Area of influence	Daily		Afyonkarahisar Municipality Supervision Consultant Contractor	Number of incidents/accidents Number of grievances received Number of grievances resolved Zero damage on roads	Included in the subproject budget
Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual Harassment (SEA/SH)	• Accommodation conditions • Ethical rules and public communication training • Workers code of conduct. • Grievance mechanism	• Area of Influence Neighborhoods • Camp site	• Grievance records review • Code of Conduct • Training Plan to include GBV and SEA/SH • Visual observations • Interviews with Mukhtars of Area of influence	Daily	100% of workers trained on GBV / SEA/SH prevention measures Code of conduct signed by 100% of workers	Afyonkarahisar Municipality Supervision Consultant Contractor	Number of incidences reported Number of incidences resolved Number of grievances	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Vulnerable and disadvantaged individuals and groups	• Recruitment policy • CSR	• Camp site • Nearby settlements	• Employment records • Visual observations • Interviews with Muhtars of Area of influence	Monthly		Afyonkarahisar Municipality Supervision Consultant Contractor	Number of grievances received Number of grievances resolved	Included in the subproject budget
Biodiversity disturbance	• Animal carcasses in the nearby surroundings • Vegetation cover • Follow-up surveys during to detect any burrows, nests and other signs of mammal activity	• Sub-project Site and environs	• Visual observations by conducting systematic visual inspections of the site to identify signs of burrows and nests such as burrow entrances, tracks, droppings, and other signs of mammalian activity.	Bi-monthly	Minimum 90% vegetation cover retention within designated areas	Afyonkarahisar Municipality Supervision Consultant Contractor	Number and variety of mammal species observed around the sub-project site, including the count of bird carcasses found Number of burrows/nests detected and identified Number of reported incidents where construction	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
							activities disturbed mammal habitats	
Cultural Heritage	• Chance Finds procedure	• Sub-project site office	• Document review	Once-off		Afyonkarahisar Municipality Supervision Consultant Contractor	Number of chance finds and records	Included in the subproject budget

Table 18. Operation Environmental and Social Monitoring Table

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Labor Force	• Employment records • Induction Training Plan • Workers' GM	Sub-project office at the site	• Document review • Visual observations • Grievance records • Interviews with employees	Annually records control As needed	100% compliance with labor laws and regulations 100% completion rate for induction and health and safety training 100% compliance with international accommodation standards (e.g., IFC/EBRD)	Afyonkarahisar Municipality	Number of grievances received Number of grievances resolved No incompliance reported	Included in the subproject budget
• Working Conditions • General OHS Risks • Lifting risks • Electricity Shock Risks • Fire risks • Manual handling risks	• PPE usage • OHS Trainings	Sub-project office at the site	• Document review for safety procedures • Visual observations to check measures are in place • Accident records Grievance records	Quarterly records control As Needed	Zero unresolved health and safety incidents within the target timeframe	Afyonkarahisar Municipality	% of scheduled HSE Inspection % of attendance at HSE meetings % of closing of Non Compliance Reports (NCRs)	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
							Reporting safe and unsafe observations Reporting near misses % of Toolbox attending % of Risk Assessment compliance % of Compliance with Legal Requirements Results of scheduled audits HSE training carried out to training matrix	
Waste management Waste Storage Area Waste management practices	• Adequate storage conditions • Leakages	Waste storage area	• Visual observations • Waste records	Monthly records control As Needed	Zero leakage incidents allowed No overflow of bins; bins should be leak-proof	Afyonkarahisar Municipality	No overfill of bins Amount of waste stored Amount of waste collected	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Soil protection from spills and leakages of oil and chemicals	• Oil stains on soil • Chemical spills on soil • Conditions of storage area for hazardous/toxic and wastes substances and wastes • Stormwater management system	Material storage locations and waste storage area within Sub-project site Car park area	• Visual observations	As Needed	Zero visible oil/chemical stains on soil Storage areas must be leak-proof and compliant with WB ESS 3	Afyonkarahisar Municipality	Number of accidents and incidents of spills and leakages reported	Included in the subproject budget
Dust from construction activities and vehicle traffic	• Grievances of disturbance from dust and emissions	Sub-project Site	• Grievance records • Visual observations for mitigation measures	As Needed	Dust levels must comply with national air quality standards	Afyonkarahisar Municipality	Number of grievances received Number of grievances resolved	Included in the subproject budget
Wastewater pollution	• Wastewater	Septic tanks	• By recording wastewater receipts (sewage vacuum truck transportation receipt).	As Needed		Afyonkarahisar Municipality	No leakages No overfilling Regular maintenance No odor	Included in the subproject budget
Noise from site machinery	• Grievances of disturbance from noise	Sub-project Site	• Grievance records	As Needed		Afyonkarahisar Municipality	Number of grievances received	Included in the

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
	generation from site machinery		• Visual observations for mitigation measures				Number of grievances resolved	subproject budget
Hazardous materials	• Labelling • Storage conditions	• Hazardous material storage area • Hazardous waste storage area	• Visual observations for mitigation measures	As Needed		Afyonkarahisar Municipality	Number of spills and leakages reported	Included in the subproject budget
Community roads Traffic risks	• Approvals from government authorities • Traffic management plan • Emergency Response Plan	• Sub-project office at the site • Along the transportation routes • Public's Grievance records	• Grievance records review • Visual observations • Interviews with muhtars of Area of influence	As Needed		Afyonkarahisar Municipality	Number of grievances received Number of grievances resolved	Included in the subproject budget
Risks related with Gender Based Violence (GBV) Sexual Exploitation Abuse / Sexual	• Ethical rules and public communication training • Workers code of conduct. • Awareness on GBV • Grievance mechanism	• Neighborhoods in the social impact zone and environs • Camp site	• Grievance records review • Code of Conduct • Training Plan to include GBV and SEA/SH • Visual observations	As Needed	100% of workers trained on GBV / SEA/SH prevention measures Code of conduct signed by 100% of workers	Afyonkarahisar Municipality	Number of grievances received Number of grievances resolved	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
Harassment (SEA/SH)			• Interviews with Muhtars of Area of influence •					
Vulnerable and disadvantaged individuals and groups	• Recruitment policy • CSR	• Nearby settlements	• Employment records • Visual observations • Interviews with Muhtars of Area of influence	Half-yearly As Needed		Afyonkarahisar Municipality	Number of grievances received Number of grievances resolved	Included in the subproject budget
Biodiversity disturbance	• Animal carcasses in the nearby surroundings • Vegetation cover • follow-up surveys during to detect any burrows, nests and other signs of mammal activity	• Sub-project Site and environs	• Visual Observations by conducting systematic visual inspections of the site to identify signs of burrows and nests such as burrow entrances, tracks, droppings, and other	Semi-annually	Minimum 90% vegetation cover retention within designated areas	Afyonkarahisar Municipality	Number and variety of mammal species observed around the sub-project site, including the count of bird carcasses found Number of burrows/nests detected and identified	Included in the subproject budget

Subject	Parameter to be Monitored	Monitoring Location	Monitoring Method	Monitoring Frequency	Reference / Threshold Level (if applicable)	Responsibility for Monitoring	Key Performance Indicators (KPIs)	Cost (If not included in the Subproject Budget)
			signs of mammalian activity.				Number of reported incidents where operation activities disturbed mammal habitats	

4.6. List of Associated Plans and Procedures

The E&S management plans and procedures to be prepared by Contractor/s are listed in Table 19.

Table 19. Plans and Procedures associated

Management Plan or Procedure	**Relevant Subproject Phase** (Construction only, Operation only, both Construction and Defect Liability Period (DLP))
Waste Management Plan	Both Construction and Operation phase
Labor Management Plan (LMP)	Both Construction and Operation phase
Construction Plan and Schedule	Construction Only
Energy Efficiency	Both Construction and Operation phase
Safe Driving	Construction Only
Occupational Health and Safety	Both Construction and Operation phase
Chance Find Procedure	Construction only
Induction regarding Code of Conduct, GBV & SEA/SH, Grievance Mechanism, EHS and WB Requirements, and	Both Construction and Operation phase
Stakeholder Engagement Plan	Both Construction and Operation phase
Emergency Response Plan	Both Construction and Operation phase
OHS Management Plan	Both Construction and Operation phase

The plans/procedures will be reviewed and revised in any major change and/or at least every 6 months.

4.7. Management of Change

Sub-borrower shall notify ILBANK of material changes in Subproject (including those that stem from sub-borrower and/or contractor activities) using ILBANK's Change Notification Form template (Annex İ). Such changes may include, inter alia, the following:

- Administrative/ organizational structure changes at the decision-making level
- Changes in assigned environmental, social and/or OHS staff
- Legislative changes impacting Subproject implementation (e.g. new permitting processes).

- Design changes (e.g. any changes in the Subproject description, footprint such as new temporary or permanent sites/facilities – on-site or off-site, changes in number of workforce involved, changes in on-site/off-site worker accommodation arrangements).
- Schedule changes.
- Changes related to E&S issues (e.g. new biodiversity features or cultural heritage assets identified, additional resettlement need, etc.)

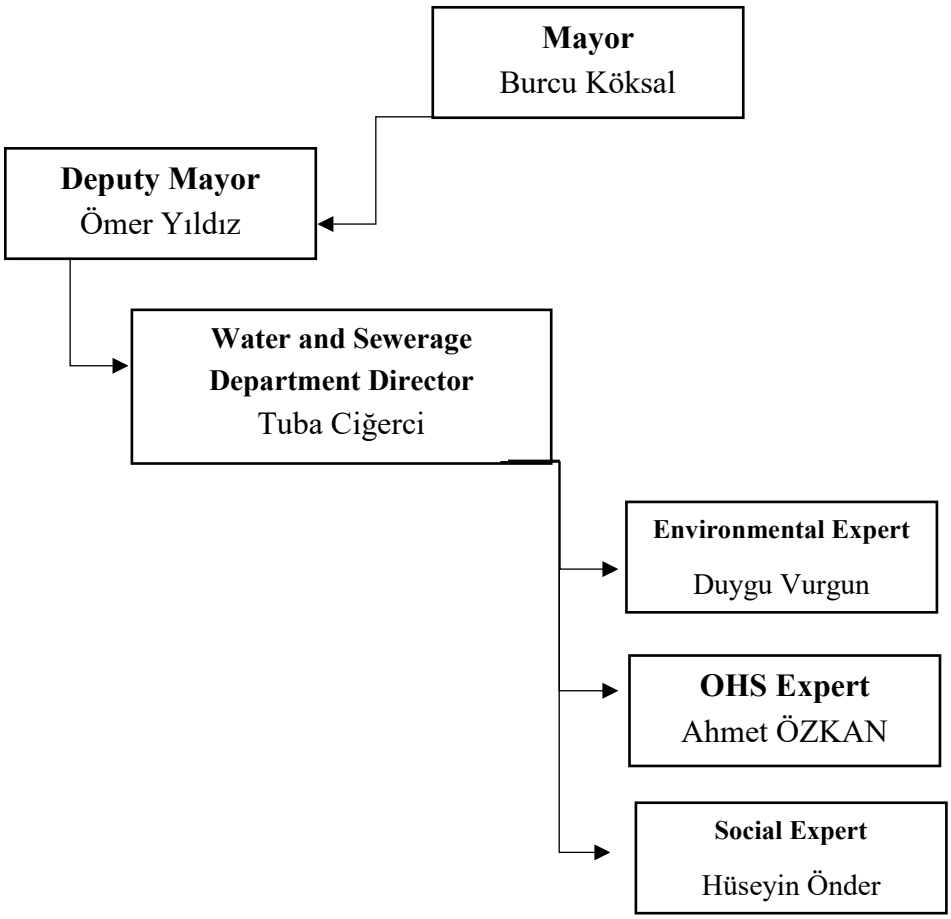
Contractor or construction supervision consultants changes at any phase of the Subproject requiring (i) E&S commitments and E&S roles and responsibilities to be clarified with the new contractor or supervision consulting firm, and (ii) contractor E&S training to be reorganized and redelivered to new contractor or supervision consulting firm's staff.

5. CAPACITY DEVELOPMENT AND TRAINING

5.1. Organizational Capacity

The organization structure of the PIU to be established by the Sub-borrower is presented in Figure 12. The PIU will have qualified staff and resources to the satisfaction of ILBANK.

Figure 12. Organization Structure – Project Implementation Unit (PIU)



The Sub-borrower will maintain the PIU by ensuring that there are qualified staff assigned and serving on the duty throughout the sub-financing agreement life cycle.

At minimum, the E&S team at the Sub-borrower PIU will include the following personnel who shall support management and monitoring of Subproject E&S risks and impacts and ensure full compliance with the ESMP and other relevant E&S instruments:

- **Environmental Specialist(s):** to address environmental risks and impacts identified under the Environmental and Social Assessment (ESA) reports, such as Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), etc.

- **Social Expert/ Grievance Mechanism (GM) Focal Point:** to address social risks and impacts under the ESA reports, land acquisition, and labor issues, including stakeholder engagement and grievance redress; and
- **Occupational Health and Safety (OHS) Specialist(s)** to address OHS risks and impacts under the ESA reports.

If the necessary staff is not available within its own organizational structure, the Sub-borrower shall receive support/ consultancy services from outside.

Contractors

The Sub-borrower will require awarded contractors to establish and maintain throughout the contract duration an organizational structure with qualified staff and resources.

This will be achieved through assigning the following personnel under the contractor's organization:

- Environmental Specialist(s)
- Social Specialist(s) who will also act as the GM Focal Point
- Occupational Health and Safety (OHS) Specialist(s)

If the necessary staff is not available within its own organizational structure, contractors shall receive third-party support/ consultancy services.

5.2. Roles and Responsibilities

The roles and E&S related responsibilities of the Sub-borrower and other key parties are described in Table 20.

Table 20. Roles and E&S related Responsibilities of Key Parties associated with ESMP Implementation

Party	Role	Key Responsibilities
Sub-borrower		
Afyonkarahisar Municipality	Sub-borrower Management	• Hold ultimate responsibility for the E&S performance of the Subproject to the satisfaction of the ILBANK, including the performance of Subproject contractors throughout the sub-financing agreement life cycle. • Establish Project Implementation Unit (PIU) following the execution of sub-financing agreements to carry out operational and administrative tasks to oversee the implementation of the E&S instruments and monitoring progress; allocate resources for the recruitment of in-house environmental, social and OHS staff under the PIU • Ensure that ESMP, SEP and other E&S management plans and procedures required by ILBANK is prepared within the timeframes agreed with ILBANK and allocate adequate financial and human resources – either from the Sub-borrower's own resources or from the Subproject loan and implement. • Cooperate with the ILBANK representatives to discuss and agree on the ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower (with support from RD E&S team as necessary) • Ensure that EHSS requirements of ILBANK are incorporated into relevant contractor tender and agreement documents to be prepared in collaboration with the construction supervision consultant • Hold and use the authority and responsibility to stop any Subproject related work activity if it poses an imminent danger to health, safety, or the environment. • Allocate resource to ensure monitoring of Subproject E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Facilitate monitoring visits and audits by ILBANK and their consultants • Notify the ILBANK RD – E&S Teams of any significant E&S incident or accident within maximum 24 hours of the accident/incident; contractually require the supervision consultants and/or contractors to promptly report such incident and accidents (timeframe to be defined by ILBANK) (Annex F) • Prepare and submit a detailed E&S Incident Investigation Form, supplemented by an RCA to be conducted pursuant to GIIPs, to ILBANK within **30 days** of the accident/incident date for significant accidents or incidents (in line with the template presented in the E&S Supervision, Monitoring and Reporting Procedure). The investigation will be supplemented by a Root Cause Analysis (RCA) (Annex G).
	E&S Team - Environmental staff - Social staff - OHS staff	• Participate in the training to be organized by ILBANK as part of ILBANK ESMS Training Procedure implementation • Ensure that satisfactory ESMP, SEP and as required other E&S assessment documentation required by ILBANK is prepared by qualified independent specialists and submitted to ILBANK for appraisal and credit decision-making for High and Substantial risk Subproject, as well as for Moderate risk Subproject where the sub-borrower has limited E&S capabilities, coordinate commissioning independent third-party specialists (such as external E&S consultancy companies, individual consultants) to carry out the E&S assessment and prepare the E&S documentation required for ILBANK's appraisal and credit decision-making processes • Provide ILBANK with relevant adequate information to undertake the E&S due diligence in accordance with the ESMS (e.g. duly completed sub-borrower questionnaire and supporting documentation to be requested by

Party	Role	Key Responsibilities
		ILBANK in accordance with the E&S Screening and Risk Classification and ESDD procedures) • Support the sub-borrower management as required in the review and evaluation of ESAP and other E&S covenants for incorporation into sub-financing agreements to be executed between the ILBANK and the sub-borrower • Ensure compliance of Subproject operations (including contractor activities on site) with national legislation and E&S requirements of the lending IFIs as included in the sub-financing agreements, ESAP and Subproject-specific E&S documentation (such as ESMP, SEP and other E&S management plans and procedures required by ILBANK) • Undertake monitoring of Subproject E&S performance and reporting to ILBANK at IFI standards in line with the sub-financing agreement conditions • Ensure implementation of corrective actions in case of E&S non-compliances in coordination and agreement with ILBANK DG and RD E&S teams over reasonable timeframes • Coordinate the construction supervision consultants, contractors and/or external E&S consultants for collection of the monitoring data and compilation of or providing input to periodic monitoring reports as necessary and appropriate • Allow ILBANK representatives (including individual consultants) to access Subproject facilities and records.
Construction Supervision Consultants ("*Müsavir*")	Management and E&S staff	Carry out the following tasks on behalf of the sub-borrowers: • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Supervise the construction works of contractors on-site, including implementation of Subproject-specific E&S requirements (requirements stemming from ESMP, SEP and other E&S management plans and procedures required by ILBANK as applicable) by contractors on a daily basis • Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the sub-financing agreements between the sub-borrower and ILBANK • Support the sub-borrowers for the supervision and review of E&S management documentation prepared by construction contractors and submit them to sub-borrowers upon finalization • Review monthly self-monitoring reports prepared by the construction contractors for early identification of E&S issues and/or non-compliances and submit them to municipalities/municipal utilities upon finalization • Identify E&S non-compliances on site and enforce construction contractors to undertake corrective actions within defined and agreed timeframes • Support the sub-borrowers (as requested) in the preparation of periodic E&S monitoring reports to be submitted to ILBANK in line with the ILBANK E&S Supervision, Monitoring and Reporting Procedure • Notify the sub-borrower of any significant E&S incident or accident that have taken place in Subproject related operations within 24 hours
Construction Contractor	Management and E&S staff	• Ensure sufficient E&S capacity for implementation of E&S requirements as set out in the construction contracts • Participate in the training sessions to be organized by sub-borrowers in line with the requirements of ILBANK ESMS Training Procedure • Prepare Subproject-specific E&S management plans and procedures prior to start of construction works as required by the construction contracts • Comply with the requirements of national legislation and implement the E&S requirements as set out in the sub-financing agreements (executed between ILBANK and the sub-borrowers) and construction contracts • Submit periodic (in frequencies to be set by ESAP) E&S self-monitoring reports to the municipalities/municipal utilities through construction supervision consultants ("*müşavir*") – in line with the format provided by ILBANK.

Party	Role	Key Responsibilities
		• Fill in monthly occupational health and safety (OHS) forms – reviewed by construction supervision consultants. • Implement corrective actions in case of E&S non-compliances under the supervision of sub-borrower's construction supervision consultant • Promptly notify the sub-borrower of any significant E&S incident or accident that have taken place in Subproject related operations (timeframe to be defined by ILBANK no later than 24 hours)

5.3. Capacity Building and Training

Sub-borrower staff (trained by ILBANK) will deliver E&S training to contractors. Training contents are summarized in Table 21. Sub-borrower will identify specific training to be conducted in line with these modules and submit this to ILBANK prior to commencement of works.

Sub-borrower will ensure that E&S training programs are expanded to subcontractors by contractors in case their involvement in Subproject implementation.

Table 21. Training Components for Training of Contractor Staff

Module	Training Name	Training Duration	Key Training Content
Module 1	ILBANK E&S Requirements	1 hour	- Overview of ILBANK E&S requirements: o ILBANK E&S Policy (including but not limited to the guiding principles on human rights, labor rights and working conditions, community health, safety and well-being, cultural heritage, gender equality, etc.) o External Communications (including stakeholder engagement, grievance management, etc.) o Monitoring, Review and Reporting o Labor Management, Contractor Management - ILBANK Code of Conduct
Module 2	Subproject-level E&S Requirements for contractors as per sub-financing agreement conditions	3 hours	- Subproject specific requirements: o E&S covenants included in sub-loan agreements o Subproject ESAP requirements o Subproject-level E&S assessment and management documentation (such as ESMP, SEP and other E&S management plans and procedures as applicable); o Emergency Preparedness and Response Plan including a training program for emergency responders including drills at regular intervals; o Specific training (such as driver training in case of involvement of vehicles or fleets of vehicles in Subproject-operations, training of security forces in the use of force (and where applicable, firearms), and appropriate conduct toward workers and affected communities, etc.). - Preparation and implementation of Labor Management Plans.

6. IMPLEMENTATION SCHEDULE AND COST ESTIMATES

6.1. Implementation Schedule

Duration of the construction and operation phase activities are listed in Table 22.

Table 22.Duration of Activities

Phase	Remarks/ Notes
Construction Duration (from site mobilization until provisional acceptance)	6 months
Defect Liability Period	12 months/ 1 years
Operation Duration	30 years

6.2. Cost Estimates

Detailed information on the amount of ESMP implementation costs to be estimated is given in the table below.

Table 23. ESMP Implementation Costs Estimation

Component	Estimated Cost (€)
OHS Observation Training	30,000
Stakeholder Engagement Activities	20,000
Materials and Resources	10,000
Monitoring and Reporting	5,000
Contingency Fund	5,000
Total	**70,000**

List of Annexes

Annex A – List of the Individuals/Organizations that Prepared or Contributed to the ESMP

Name of the Individual/ Organization	Company/ Institution	Profession/ Expertise
Abdulhamit Turgut Bağdat	Ardea Project & Consultant	Energy Expert
Didar Güngör	Ardea Project & Consultant	Social Expert
Burak Tuncer	Ardea Project & Consultant	Urban Planner
Burcu Kalkan	Ardea Project & Consultant	Environmental Engineer
Arslan Mehmet	Ardea Project & Consultant	Financial Expert

Annex B – Existing Permitting Documentation

B.1 EIA Decision

T.C.
ÇEVRE ve ŞEHİRCİLİK BAKANLIĞI
Çevresel Etki Değerlendirmesi, İzin ve Denetim Genel Müdürlüğü

T.C.
AFYONKARAHİSAR VALİLİĞİ
ÇEVRE ve ŞEHİRCİLİK İL MÜDÜRLÜĞÜ

Karar Tarihi : 21-04-2021
Karar No : 56916320 220-02 E-202181

ÇEVRESEL ETKİ DEĞERLENDİRME BELGESİ

25.11.2014 tarih ve 29186 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren Çevresel Etki Değerlendirmesi Yönetmeliği'nin Ek-II listesinde yer alan **'GUNES ENERJI SANTRALI'** projesi ile ilgili olarak inceleme-değerlendirme yapılmış ve Proje Tanıtım Dosyasında çevresel etkilere karşı alınması öngörülen önlemler yeterli görülmüştür. Ayrıca ÇED Raporu hazırlanmasına gerek bulunmadığı tespit edilmiş olup, söz konusu projeye ÇED Yönetmeliğinin 17. Maddesi gereğince Valiliğimizce **"Çevresel Etki Değerlendirmesi Gerekli Değildir"** kararı verilmiştir.

Mustafa ORUÇ
Çevre ve Şehircilik İl Müdürü

Proje Sahibi : AFYONKARAHİSAR BELEDİYE BAŞKANLIĞI
Proje Yeri : Afyonkarahisar İli, Merkez İlçesi, İNAZ (DEMİRÇEVRE) KÖYÜ, 671 ADA, 1 PARSEL, 25.355,53 M2
Kapasite : 25.355,53 m² (2,53 ha) alan üzerinde 3 MWe kurulu güçte
"Çevresel Etki Değerlendirmesi Gerekli Değildir" kararı verilen alanın koordinatları arka sayfadadır.

B.2 Permission Certificate Regarding ETL Received from Afyonkarahisar Municipality Planning and Urbanization Department

T.C.
AFYONKARAHİSAR BELEDİYE BAŞKANLIĞI
İmar ve Şehircilik Müdürlüğü

Sayı : E-82001135-115.01.99-56037 — 03.06.2022
Konu : Güzergah Hakkında

SU VE KANALİZASYON MÜDÜRLÜĞÜNE
(Teknik Bakım Birimi)

İlgi : 27.05.2022 tarih ve 54872 sayılı yazınız.

İlgi sayılı yazınızda Belediyemizce yaptırılacak olan 3MW'lık GES Tesisi için ekli krokide belirtilen güzergahta ENH yapılması gerektiğini belirterek, ekli krokideki güzergahın kullanılmasında herhangi bir sakıncanın olup olmadığının tarafınıza bildirilmesini istemektesiniz.

İlgi sayılı yazınız ekinde belirtilen kroki incelenmiş olup, belirtilen güzergahta ENH yapılmasının Müdürlüğümüzce herhangi bir sakıncası bulunmamaktadır.

Bilgilerinize rica ederim.

Ziya KÜKEY
İmar ve Şehircilik Müdürü

Doğrulama Kodu: w62qO1-5A1M9t-GQwM9h-V13LV6-Kb/Yf9** Doğrulama Linki: https://www.turkiye.gov.tr/icisleri-belediye-ebys

Karaman Mah. Albay Reşat Çiğiltepe Cad. No:11 Merkez / Afyonkarahisar
Telefon No: 4440383 Dahili: 325 Faks No: (272)213 27 98
e-Posta: imar@afyon.bel.tr İnternet Adresi: https://www.afyon.bel.tr/
Kep Adresi: afyonbelediyesi@hs01.kep.tr

Bilgi için: Ayşe ÖZER
Veri Hazırlama ve Kontrol İşletmeni
Telefon No:

1

B.3 Agreement Between Afyonkarahisar Municipality and Osmangazi Electricity Distribution Inc. for Unlicensed Producers' Connection to the Distribution System

DAĞITIM SİSTEMİNE BAĞLANTI ANLAŞMASI
(TÜKETİCİLER İÇİN)

Tarih: 26-09-2022

Kullanıcı (*) No: 03.97.00.00.00-00002013939

Bu anlaşma; isim ve/veya unvanı ile kanuni ikametgah adresi aşağıda belirtilen kullanıcıya ait ..... tesisinin, Elektrik Piyasası Kanunu ve ilgili mevzuat uyarınca ..... bağlanması için gerekli hüküm ve şartları içermektedir.

Kanuni Adresleri

Kullanıcı:
AFYONKARAHİSAR BELEDİYE BAŞKANLIĞI
DEMİRÇEVRE -MERKEZ MERKEZ AFYONKARAHİSAR
Kullanıcı Sıfatı:

KEP:
oedas@hs03.kep.tr

KEP:

Temsile Yetkili Kişiler (İmzalar)

Dağıtım Şirketi
OSMANGAZİ ELEKTRİK DAĞITIM A.Ş.

Halil AÇIKGÖZ
Yönetici

Celal DEMİR
İl İşletme Müdürü

Kullanıcı
AFYONKARAHİSAR BELEDİYE BAŞKANLIĞI

Hüseyin ÖNDER

Bu anlaşma, genel hükümleri içeren birinci bölümü (24 madde ve 9 sayfa) ve özel hükümleri ve ekleri içeren ikinci bölümü ile birlikte ayrılmaz bir bütündür.

(*)Kullanıcı: Bu anlaşmada, dağıtım sistemine bağlantı yapan gerçek veya tüzel kişileri ifade eder.

İKİNCİ BÖLÜM

EK-1

BAĞLANTI BİLGİLERİ

Tesisin Adresi	: DEMİRÇEVRE -MERKEZ MERKEZ AFYONKARAHİSAR
Kullanıcının Bağlanacağı Nokta	:310135868
Gerilim Seviyesi	:OG
Ölçüm Noktası	:81111222
Bağlantı İçin Öngörülen Tarih (Dağıtım Şirketinin fiziki bağlantıya ilişkin olarak verdiği termin programı çerçevesinde)	:
Bağlantı Bedeli	:0,00
Anlaşma Gücü	:
Kurulu Güç	:3.000,000 kW
Tahsis Edilen Güç	:
Bağlantı Gücü	:
Bağlantı Varlıkları	:
Tedarikçinin	
Lisans No	:
Adı	:
Geçici Bağlantının	
Amacı	:
Bağlantı Noktası	:
Süresi	:
Ölçüm Sistemi Tek Hat Şeması	:22.LUY.GES.03.0012
Enerji Müsaade Belgesi	:21152
Tapu Kaydı	:671/1/
Elektrik Projesi	:22.LUY.GES.03.0012
İnşaat/Yapı Kullanma İzin Belgesi	:Yok/

LİSANSSIZ ELEKTRİK ÜRETİCİLERİ İÇİN DAĞITIM SİSTEMİNE BAĞLANTI ANLAŞMASI

Üretici No:2013939
Tarih: 23.09.2022 Sayısı: 16[1] 003[2] 02[3] 02[4] 0001333[5]

Bu Anlaşma; isim veya unvanı ile kanuni ikametgah adresi aşağıda belirtilen Üreticiye ait Elektrik Piyasasında Lisanssız Elektrik Üretimine ilişkin Yönetmelik kapsamında kurulmuş üretim tesisinin 4628 sayılı Elektrik Piyasası Kanunu (Kanun) ve 5346 sayılı Yenilenebilir Enerji Kaynaklarının Elektrik Enerjisi Üretimi Amaçlı Kullanımına İlişkin Kanun (YEK Kanunu) ile bu kanunlar uyarınca çıkarılmış ikincil mevzuat uyarınca dağıtım sistemine bağlanması için gerekli hüküm ve şartları içermektedir.

Taraflar Dağıtım Şirketi: Üretici:

Kanuni Adresleri
Temsile Yetkili Kişiler
İmzalar

AFYONKARAHİSAR BELEDİYE BAŞKANLIĞI

Halil AÇIKALIN
Yönetici - Dağıtım Şirketi

Cafer DEMİR
İl İşletme Müdürü

Bu anlaşma, genel hükümleri içeren Birinci Bölümü ve özel hükümleri ve ekleri içeren İkinci Bölümü ile birlikte ayrılmaz bir bütündür.

---

[1] Dağıtım Şirketinin numarası yazılır. Numaralar 17/3/2004 tarih ve 2004/3 sayılı YPK Kararının 2 numaralı ekine göre belirlenir. Numaralar iki haneli olarak yazılır.

[2] Dağıtım bölgesindeki ilin trafik plaka kodu yazılacaktır.

[3] Üretim kaynak kodu yazılır. Buna göre rüzgar için 01, güneş için 02, hidrolik için 03, jeotermal için 04, biyogaz için 05, biyokütle için 06, doğalgaz için 07, rüzgar+güneş için 10, biyogaz+güneş için 11, biyogaz+doğalgaz için 12 kodları kullanılacaktır. Hibrit üretim tesisi kapsamında burada belirtilenlerden farklı bir kaynak kompozisyonu durumunda EPDK görüşü alınır.

[4] Abone grubu kodları kullanılacaktır. Buna göre mesken için 01, ticarethane için 02, tarımsal sulama için 03, içme ve kullanma suyu için 04, sanayi için 05, diğer 1 için 06, diğer 2 için 07, mesken+ticarethane için 08, mesken+sanayi için 09, ticarethane+sanayi için 10, mesken+ticarethane+sanayi için 11, mesken+tarımsal sulama için 12, içme ve kullanma suyu+ticarethane için 13 kullanılacaktır. Tüketim birleştirme kapsamında burada belirtilenlerden farklı bir abone kompozisyonu durumunda EPDK görüşü alınır.

[5] İlk anlaşmaya 0000001 sırası verilerek teselsül ettirilir.

LİSANSSIZ ÜRETİCİLER İÇİN DAĞITIM SİSTEMİNE BAĞLANTI ANLAŞMASI

BİRİNCİ BÖLÜM

MADDE 1 - TARAFLAR

(1) Bu anlaşma dağıtım şirketi ile Elektrik Piyasasında Lisanssız Elektrik Üretimine İlişkin Yönetmelik (Yönetmelik) kapsamında elektrik üretim tesisi kuran gerçek veya tüzel kişiler (Üretici) arasında imzalanır. Bu anlaşmanın tarafları …….. Dağıtım A.Ş. ile ……. (üretici)'dır.

MADDE 2. ANLAŞMA KONUSU VE BAĞLANTI BİLGİLERİ:

(1) Bu anlaşma Elektrik Piyasasında Lisanssız Elektrik Üretimine İlişkin Yönetmelik kapsamında üretim tesisi kuran kişilerin dağıtım sistemine bağlanmasına ilişkin hükümleri içerir.

(2) Bağlantı bilgileri Ek-1'de belirtilmiştir.

MADDE 3 – ANLAŞMANIN YORUMLANMASI

(1) Bu Anlaşma öncelikle Elektrik Piyasasında Lisanssız Elektrik Üretimine İlişkin Yönetmelik (Yönetmelik) ve Elektrik Piyasasında Lisanssız Elektrik Üretimine İlişkin Yönetmeliğin Uygulanmasına Dair Tebliğ'e (Tebliğ) uygun olarak yorumlanır ve uygulanır. Yönetmelik ve Tebliğ'de hüküm bulunmaması halinde Kanun ve YEK Kanununa göre çıkarılmış ikincil mevzuata (ilgili mevzuat) uygun yorum ve uygulama yoluna gidilir.

MADDE 4. ANLAŞMA GÜCÜ:

(1) Üretici; bu anlaşma, Elektrik Piyasasında İletim ve Dağıtım Sistemlerine Bağlantı ve Sistem Kullanım Hakkında Tebliğ hükümleri uyarınca revize edilmeden bağlantı noktasına anlaşma gücünün üzerinde elektrik enerjisi veremez.

(2) Üreticinin anlaşma gücünü ihlal etmesi durumunda Dağıtım Şirketi ihlalin giderilmesi için bildirimde bulunarak 15 (onbeş) günlük ihlali giderme süresi verir ve bu anlaşmanın 16 ncı maddesi kapsamında ilgili yaptırımı uygular. Üreticiye Dağıtım Şirketi tarafından kesilen faturalar, anlaşma gücüne ve bu gücün aşıldığına dair kayıt içermesi halinde bildirim yerine geçer, bu durumda ayrıca bildirim yapılması gerekmez. İhlal bildirim alındığında derhal sona erdirilir veya tebligat tarihinden itibaren en geç öngörülen süre içinde giderilir. İhlalin en geç verilen süre içinde giderilmemesi/giderilememesi halinde Dağıtım Şirketi üreticinin sisteme elektrik enerjisi vermesini engelleyebilir. Bu halde dahi tüketim tesisinin sistemden enerji alması engellenemez. Elektrik enerjisinin kesilmesi ve tekrar verilmesi durumunda ortaya çıkan masraf ve maliyetler, üretici tarafından Dağıtım Şirketine ödenir.

(3) Dağıtım Şirketi, üreticinin anlaşma gücü üzerinde elektrik enerjisi vermesini önlemek amacıyla otomatik enerji kesme sistemleri tesis edebilir. Bu sistemlerin teçhizi üreticiden istenemez.

(4) Üreticinin anlaşma gücünü ihlal etmesi durumunda, Dağıtım Şirketi ile üretici arasında bu anlaşmanın 16 ncı maddesi hükümleri uyarınca işlem yapılır.

MADDE 5. MÜLKİYET SINIRLARI:

(1) Dağıtım Şirketi ile üretici arasındaki tesis ve/veya teçhizatın mülkiyet sınırları Yönetmelik ve ilgili mevzuat hükümlerine göre belirlenir ve Ek-2'de belirtildiği şekildedir.

(2) Taraflar, Ek-2 de belirtilen mülkiyet sınırlarına göre kendi tesis ve teçhizatın bakım onarımı, işletilmesi ve korunması ile yetkili ve sorumludurlar.

(3) Dağıtım Şirketi ve üretici tarafından işletme sınırlarında yer alan tesis ve/veya teçhizatın bakım/onarımı, işletilmesi ve korunması ile ilgili olarak yetki ve sorumluluğun hangi tarafta olduğunu belirleyen yetki çizelgesi ve dağıtım sistemi ile üretici tesisleri ve/veya iletim sistemi arasındaki işletme sınırlarında veya ortak sorumluluğun bulunduğu yerlerde uygulanacak güvenlik yönetimi sistemine ilişkin hususlar, dağıtım sistemine bağlanmak için başvuruda bulunanlar için, bağlantının tesis edilmesinden 15 (onbeş) gün önce Dağıtım Şirketi tarafından üretici ile müzakere edilmek suretiyle düzenlenir ve bu anlaşmanın ayrılmaz bir parçası olarak kabul edilir.

MADDE 6. KARŞILIKLI YÜKÜMLÜLÜKLER:

A. Dağıtım Sistemi Varlıklarının Tesis Edilmesi ve Müşteri Mülkiyetindeki Tesisten Faydalanma:

(1) Dağıtım Sistemi Varlıklarının Üretici Tarafından Tesis Edilmesi veya Ettirilmesi:

(1) Dağıtım sistemine bağlantı yapılmasının dağıtım şirketi tarafından ilave yatırım gerektirdiği hallerde veya sistem kullanımı açısından kapasitenin yetersiz olması nedeniyle genişleme yatırımı veya yeni yatırım yapılmasının gerekli olduğu hallerde yatırım dağıtım şirketince yapılır. Ancak yeterli finansmanın mevcut olmaması halinde üretim tesisi tüketim tesisi ile aynı yerde olan üreticiler, bu nitelikteki yatırımlar için AG/YG'den Bağlantı Yapan Tüketiciler İçin geçerli Dağıtım Sistemine Bağlantı Anlaşmasında öngörülen hükümlere göre işlem yapabilirler. Ancak üretim tesisi tüketim tesisi ile aynı yerde olmayan üreticiler yeterli finansmanın mevcut olmaması halinde dağıtım şirketi ile akdedecekleri özel hukuka tabi bir sözleşme kapsamında bu yatırımı yapabilir. Bu sözleşme kapsamında yapılan genişleme ve/veya yeni yatırımın gerçekleşen bedelinin veya ne kadarının geri ödeneceği, geri ödemenin esas ve usulleri ile bu anlaşmanın ve yapılacak özel hukuka tabi anlaşmanın feshedilmesi halinde tarafların hak ve yükümlülükleri taraflar arasında akdedilecek anlaşma ile belirlenir.

(2) Bir Başka Üretici Mülkiyetindeki Tesisten Faydalanma:

(1) Dağıtım sistemine bağlı bir üretici tarafından bağlantı noktasına kadar müstakilen tesis edilmiş branşman hattından Elektrik Piyasası Müşteri Hizmetleri Yönetmeliği çerçevesinde üçüncü şahıslar da yararlanabilir.

B.Mali Yükümlülükler:

1. Bağlantı Bedeli:

(1) Dağıtım Şirketinin Kurul tarafından onaylı tarifesindeki yönteme göre hesaplanan bağlantı bedeli üretici tarafından Dağıtım Şirketine ödenir.

2.İşletme ve Bakım Masraflarının Karşılanması:

(1) Bağlantı varlıklarının işletme ve bakım masrafları, mülkiyet sınırları dahilinde ilgili taraflarca karşılanır.

3.Diğer Masraflar:

(1) Bu anlaşmadan doğan vergi, resim, harç gibi yükümlülükler ile diğer masrafların tamamı üreticiye aittir.

4.Tazminat:

(1) Üretici ve işletme sorumlusu, bu anlaşma ve ilgili mevzuata aykırı kusurlu davranışları sonucunda Dağıtım Şirketinin uğradığı zararları tazmin eder. Dağıtım şirketi de kusurlu davranışından kaynaklanan üreticinin zararını ödemekle yükümlüdür.

C. Teknik Hükümler:

1.Veri Sağlama:

(1) Üretici, bağlantının gerçekleştirilmesi için talep edilen her türlü bilgi ve belgeyi Dağıtım Şirketine verir.

2.Koruma ve Ölçüm Sistemi:

Koruma:

(1) Üretici; uygulanacak koruma sistemi ile ilgili tasarımlarını ilgili mevzuat çerçevesinde belirtilen şartlara uygun olarak hazırlayarak Dağıtım Şirketine sunar ve koruma ayarlarını Dağıtım Şirketi ile varacağı mutabakat uyarınca Dağıtım Şirketinin kontrol ve koordinasyonu altında yapar. Dağıtım Şirketi ile üreticinin mutabakata vardığı koruma sistemi ayarları ile ilgili ayrıntılar Ek-3'de belirtilmiştir.

(2) Üretici, bağlantı noktasında, bölgenin çevre şartları da göz önüne alınarak tespit edilen ilgili teknik mevzuata ve TS/EN/IEC öncelik sırasına uygun olarak standartlarına uygun malzeme kullanır.

Ölçüm Sistemi:

(1) Ölçüm sisteminde ilgili mevzuatta tanımlanan sayaçlar kullanılır.

(2) Ölçüm sistemi ile ilgili projeler, mevzuata uygun olarak üretici tarafından hazırlanır ve Dağıtım Şirketi tarafından kontrol edilir.

(3) Üretici, ölçüm sisteminin karşılıklı kayıt altına alınması, ölçüm sistemini oluşturan teçhizatın projeye göre kontrolü ve hassasiyet testleri için Dağıtım Şirketine başvuruda bulunur.

(4) Üretici, üretim tesisinin tüketim tesisiyle aynı yerde olması halinde bu Anlaşmada belirlenen yere ilgili mevzuatta dengeleme ve uzlaştırma sisteminin gerektirdiği haberleşmeyi sağlayabilecek çift yönlü ölçüm yapabilen saatlik sayaç tesis eder. Ayrıca üretim tesisinin üretimini ölçmek amacıyla müstakil bir sayaç daha tesis edilir. Üretici, üretim tesisinin tüketim tesisiyle aynı yerde olmaması halinde ise bu Anlaşmada belirlenen yere ilgili mevzuatta dengeleme ve uzlaştırma sisteminin gerektirdiği haberleşmeyi sağlayabilecek ana sayacı tesis eder. Ancak aynı yerde birden çok kaynağa dayalı üretim tesisinin bulunması halinde, her bir üretim tesisi için ayrı yedek sayaç teçhiz edilir.

(5) Ölçüm sisteminde yer alan sayaçlarla ilgili devreye alma ve periyodik muayene işlemleri Ek-4'e uygun olarak gerçekleştirilir.

(6) Taraflardan birisi test tarihleri dışında sayacın/sayaçların hatalı ölçüm yaptığını iddia ederse, 3516 sayılı Ölçüler ve Ayar Kanunu ve Ölçü ve Ölçü Aletleri Muayene Yönetmeliği ve Elektrik Piyasası Müşteri Hizmetleri Yönetmeliği hükümleri uyarınca işlem yapılır.

(7) Taraflardan biri, sayaçların hatalı ölçme yaptığını iddia eder ve test sonucunda söz konusu cihazların hassasiyet sınıfı içerisinde çalıştığı anlaşılırsa, yapılan bu testin masrafları, talepte bulunan tarafça karşılanır; aksi durumda test masrafları ölçüm teçhizatı hatalı olan tarafça karşılanır.

(8) Ölçme sistemine dahil olan tüm sayaçlara ilişkin olarak mühür kopartıldığı veya sayaçların normal ölçüm yapmasına engel olacak mahiyette herhangi bir müdahalenin yapılmış olduğu tespit edilirse veya sayaçlar kayıt yapmıyorsa veya kontrol ve test sonucu ana sayacın yanlış ölçüm yaptığı tespit edilirse, ana sayaç grubu kayıt değerlerinin yedek sayaç grubu kayıt değerleri ile aynı olduğu son ölçümden itibaren doğru enerji miktarları yedek sayaç grubu üzerinden tespit edilir. Yedek sayaç grubunun da mührünün kopartıldığı veya sayacın normal ölçüm yapmasına engel olacak mahiyette herhangi bir müdahalenin yapılmış olduğu tespit edilirse veya yedek sayaç da kayıt yapmıyorsa veya kontrol ve test sonucu yedek sayacın yanlış ölçüm yaptığı tespit edilirse ilgili mevzuat hükümleri uygulanır.

3. İletişim:

(1) Üretim tesisinin kurulu gücü 11 kW'ın üzerinde olan üreticiler, dağıtım şirketi tarafından gerekli alt yapının kurulmuş olması kaydıyla, dağıtım şirketi tarafından yapılacak bildirim üzerine bu anlaşmada belirtilen mülkiyet sınırı dahilinde uzaktan izleme ve kontrol için gerekli ekipman ve altyapıyı teçhizle yükümlüdür. Dağıtım şirketi bildirimde uzaktan izleme ve kontrol sisteminin gerekli teknik özelliklerini de bildirir.

(2) Üretici ile iletişimin temin edilmesi için; ilgili mevzuat kapsamında öngörülen donanımlar, üretici tesisinin dağıtım sistemine bağlanması aşamasında Dağıtım Şirketi ile görüşülmek suretiyle belirlenir. İletişim sistemine ilişkin bilgiler Ek-5'de belirtilmiştir.

4. Kompanzasyon:

(1) Kompanzasyona ait uygulamalar ilgili mevzuat hükümlerine göre yapılır.

(2) Üreticinin her bir ölçüm noktasından çekeceği endüktif reaktif enerjinin/vereceği kapasitif reaktif enerjinin, aktif enerjiye oranı ilgili mevzuata uygun olmak zorundadır.

5. Harmonik Bozulmalar, Fliker Şiddeti, Faz Dengesizliği:

(1) Harmonik bozulmalar, fliker şiddeti ve faz dengesizliğinin giderilmesine ilişkin uygulamalar ilgili mevzuata uygun olarak yapılır.

6. Üretim Tesislerinin Tasarım ve Performans Şartları:

(1) Üretim tesisleri mevzuata uygun olarak tasarlanır, devreye alınır ve işletilir.

7. Talep Kontrolü:

(1) Dağıtım Şirketi, üreticinin talep kontrolünden etkilenme olasılığı bulunması halinde etkilenen tarafı mümkün ise önceden haberdar eder. Üreticinin talep kontrolü uygulamalarına ilişkin hak ve yükümlülükleri Ek-6'da yer almaktadır.

8. Periyodik Bakım

(1) Üretici, üretim tesisinin koruma, bağlantı ve diğer kısımlarını periyodik (teçhizatın özelliğine göre aylık, üç aylık, altı aylık veya yıllık) olarak kontrol ettirir ve tutanak altına alır. Tutanaklara tarih sırası verilir ve bir nüshası dağıtım şirketine ibraz edilir.

(2) Dağıtım şirketi istediği zaman üretim tesisinin bağlantı ekipmanı, koruma düzenekleri ve diğer kısımlarının kontrolünü talep edebilir. Bu durumda üretici makul süre içinde muayene yaptırmak ve tutanağı dağıtım şirketine ibrazla mükelleftir. Üretici, denetimlerde ibraz edilmek üzere muayene ve bakım personelinin yeterlik belgelerinin bir örneğini bulundurur.

MADDE 7. ERİŞİM ve MÜDAHALE HAKLARI:

(1) Dağıtım Şirketi, mülkiyetin gayri ayni haklar da dahil olmak üzere;

a) Bağlantı ve dağıtım sistemi varlıklarının tesisi, işletmesi, bakımı, kontrolü, test edilmesi ve sökülmesi,

b) Ölçüm sistemlerine zaman sınırlaması olmaksızın erişim,

hakkına sahiptir. Taraflar, temsilcileri, çalışanları ve taraflarca davet edilen diğer kimseler;

a) Can ve mal güvenliğinin sağlanması için yapılması gereken acil durum müdahaleleri,

b) Dağıtım Şirketinin, dağıtım sistemini ilgili mevzuatta yer alan hükümler uyarınca işletebilmek amacıyla yapacağı müdahaleler,

dışında diğer tarafın tesis ve/veya teçhizatına müdahale edemez.

MADDE 8. PARALELE GİRME

(1) Üretim tesislerinin paralele girme işlemlerine ilişkin alınması gerekli tüm tedbirler (koruma, kilitleme, iletişim gibi), üretim yapan üretici tarafından alınacak ve paralele girme işlemleri dağıtım şirketinin komuta ve talimatları doğrultusunda üretim yapan üretici tarafından üretici tesislerinde gerçekleştirilecektir.

MADDE 9. MÜCBİR SEBEP HALLERİ:

(1) Taraflar bu anlaşmadan kaynaklanan bir yükümlülüğünü mücbir sebeplerden dolayı yerine getirememeleri halinde; mücbir sebebe yol açan koşulları, mahiyetini ve tahmini süresini açıklayan mücbir sebep bildirim raporunu, mücbir sebebin süresi boyunca yükümlülüklerini yerine getirememe durumunu ortadan kaldırmak için aldığı önlemleri ve güncel bilgileri içeren bir raporu veya süregiden olaylarda periyodik raporları diğer tarafa gönderir.Dağıtım şirketinin raporu ya da raporları resmi internet sitesinde derhal yayımlaması yeterlidir. Ancak raporun bir suretinin istenmesi halinde üreticiye derhal gönderilir/ibraz edilir.

MADDE 10. ÜRETİCİ BAĞLANTISININ VE/VEYA ENERJİSİNİN KESİLMESİ:

(1) Dağıtım Şirketi;

a) a) Bu anlaşma ve ilgili mevzuat hükümleri gereğince enerji kesilmesini gerektiren durumlarda en az 2 (iki) gün önceden bildirimde bulunmak suretiyle,

b) Dağıtım sisteminin herhangi bir bölümünün Dağıtım Şirketi tarafından test ve kontrolünün, tadilatının, bakımının, onarımının veya genişletilmesinin gerektirdiği durumlarda en az 5 (beş) gün önceden bildirimde bulunmak suretiyle,

c) Mücbir sebep hallerinden birine bağlı durumlarda,

d) Can ve mal güvenliğinin sağlanmasının gerektirdiği durumlarda,

e) Dağıtım sistemini veya enerji alınan veya verilen başka bir sistemi etkileyen veya etkileme ihtimali olan kaza, sistem arızası veya acil durumlarda,

üreticinin tesis ve/veya teçhizatının bağlantısını kesebilir.

(2) Enerji kesintisine neden olan durumun ortadan kalkmasından sonra üreticiye ait tesis ve/veya teçhizat ilgili mevzuat hükümlerine göre yeniden enerjilendirilir.

(3) Üreticinin bağlantı noktasında enerjisinin kesilmesine ilişkin yazılı talebi Dağıtım Şirketi tarafından varılan mutabakat çerçevesinde yerine getirilir. Bu kapsamda dağıtım şirketinin enerjiyi kesme ve tekrar verme işlemleri ile ilgili olarak yaptığı harcamalar, üretici tarafından üstlenilir.

MADDE 11. DAĞITIM SİSTEMİNDEN AYRILMA:

(1) Üretici, bu anlaşmaya konu tesis ve/veya teçhizatını sistemden ayırma talebini en az iki ay önceden Dağıtım Şirketine yazılı olarak bildirir.

(2) Dağıtım Şirketi ile üretici farklı bir süre için mutabık kalmadıkları takdirde, sistemle bağlantının fiziki olarak kesilmesini takip eden dört ay içerisinde birbirlerinin arazisi içinde bulunan varlıklarını kaldırırlar.

MADDE 12. DEVİR, TEMLİK VE REHİN:

(1) Üretici, bu anlaşma kapsamındaki haklarını veya yükümlülüklerini başkalarına devir, temlik ve rehne konu edemez.

MADDE 13. HİZMET ALIMI:

(1) Dağıtım Şirketi ile üretici, önceden birbirlerinin yazılı onayını almaksızın, bu anlaşma kapsamındaki yükümlülüklerini hizmet alımı yoluyla başkalarına gördürebilir. Hizmet alımı yoluna gidilmesi, bu anlaşma kapsamındaki yükümlülüklerin devri anlamına gelmez. Hizmet alımında bulunan üretici, bu durumu uygulamanın başlamasından en az 3 (üç) iş günü öncesinden Dağıtım Şirketine yazılı olarak bildirir.

MADDE 14. GİZLİLİK:

(1) Taraflar, ilgili mevzuatın uygulanması sonucu veya piyasa faaliyetleri yahut bu anlaşmanın uygulanması sonucunda sahip oldukları ticari önemi haiz bilgilerin gizli tutulması için gerekli tedbirleri almak ve kendi iştirakleri ve/veya hissedarları olan tüzel kişiler dahil üçüncü şahıslara açıklamamak ve ilgili mevzuat ile öngörülen hususlar dışında kullanmamakla yükümlüdür. Taraflar, yeni başlamış veya yürüyen projeleri kapsamında danışmana yahut bağımsız denetim kuruluşuna, işlem denetçisine veya sigorta şirketine sunulan veya kamuya mal olmuş bilgiler ile yürürlükte olan kanun ve düzenlemeler ya da verilmiş olan bir mahkeme kararı, idari emir gereğince açıklanması gereken bilgilerin gizli bilgi tanımına girmediğini kabul ederler.

MADDE 15. FERAGAT:

(1) Üretici yazılı olarak haklarından feragat etmediği sürece; ilgili mevzuat ve bu anlaşma kapsamındaki hakların kullanılmasındaki gecikme, bu haklarını kısmen veya tamamen ortadan kaldırmaz ve bu haklardan feragat edildiği anlamına gelmez. Bir hakkın kısmen kullanılması, bu hakkın veya başka bir hakkın ileride kullanımını engellemez.

MADDE 16. CEZAİ ŞARTLAR:

(1) Üreticinin ilgili mevzuat ve bu anlaşma hükümlerinin herhangi birini ihlal etmesi durumunda, Dağıtım Şirketi, yazılı bildirim yaparak aşağıda yer alan cezai şartları uygular.

İhlalin Tanımı	Üretici Tarafından Dağıtım Şirketine Ödenmesi Gereken Ceza
a) Üreticinin bağlantı noktasına anlaşma gücü üzerinde elektrik enerjisi vermesi	Her takvim yılında; üreticinin sisteme verdiği gücün anlaşma gücünü aşması halinde, sisteme verilen gücün anlaşma gücünü aştığı değerlerin en yükseği dikkate alınarak, ilk aşımın gerçekleştiği aydan itibaren ilgili takvim yılı sonu veya ilgili takvim yılı sonundan önce ise bu anlaşmanın yürürlükte olduğu dönem sonuna kadar ceza uygulanır. Bu ceza, anlaşma gücünü aşan kısım için (kW), ilgili takvim yılının en yüksek Sistem Kullanım Fiyatı üzerinden hesaplanan bedelin dört misli olarak hesaplanır. Anlaşma gücü üzerinde sisteme verilen enerji miktarı, destek ödemesi hesabında dikkate alınmaz.
b) Üreticinin tesis ve/veya teçhizatının bu anlaşma ve ilgili mevzuatta belirtilen bozucu etkilere ilişkin sınır değerlerini aşması	İçinde bulunulan aya ait Sistem Kullanım Fiyatına göre hesaplanan bedelin %5'i oranında ceza uygulanır. Bu oran aylık olarak toplam %30 u geçemez. Ceza, 00.00-24.00 saatleri arasında bir defadan

	fazla uygulanmaz.
c) Üreticinin ilgili mevzuatta tanımlanan emniyet tedbirlerini almaması, yanlış manevrası, test ve işletme hatası veya teçhizat arızası gibi nedenlerle Dağıtım Şirketi çalışanlarının, tesislerinin, dağıtım sisteminin olumsuz yönde etkilenmesi	İçinde bulunulan aya ait Sistem Kullanım Fiyatına göre hesaplanan bedelin %5'i oranında ceza uygulanır. Ceza, 00.00-24.00 saatleri arasında bir defadan fazla uygulanmaz.
ç) Üreticiye ait arızalı iletişim teçhizatının Dağıtım Şirketinin yazılı uyarısına rağmen onarılmaması/değiştirilmemesi ve bu durumu ile kullanılmaya devam edilmesi	Gerekli onarımın/değişikliğin yapılmayıp ihlalin devam ettiği her gün için içinde bulunulan aya ait Sistem Kullanım Fiyatına göre hesaplanan bedelin %1'i oranında ceza uygulanır.
d) Üreticinin dağıtım sisteminin her bir ölçüm noktasında çekecekleri endüktif reaktif enerjinin/verecekleri kapasitif reaktif enerjinin, aktif enerjiye oranının ilgili mevzuata uygun olmaması	Üreticinin o ayki Sistem Kullanım Fiyatına göre hesaplanan bedelin % 0,25'i oranında ceza uygulanır. Ceza, her uzlaştırma periyodu için yapılacak ölçümlerin sonucuna göre 00.00-24.00 saatleri arasında bir defadan fazla uygulanmaz.
e) Üreticiye ait üretim tesisi ile bağlantı ekipmanının, şebeke kaybı olması veya kısa devre arızası oluşması durumlarında, dağıtım sistemiyle bağlantısının kesilmediğinin veya bağlantısı kesik olduğu halde enerjisiz şebekeye çok kısa, kısa veya uzun süreli enerji verildiğinin tespit edilmesi (ilgili kilitleme sistemlerinin çalışmaması)	Her bir ihlal için anlaşma gücü üzerinden hesaplanacak aylık sistem kullanım bedeli kadar ceza uygulanır.

(2) Dağıtım Şirketinin kendisinden kaynaklanan bir nedenle bu anlaşma kapsamında üreticiye taahhüt ettiği anlaşma gücünü sağlayamaması durumunda bu gücün sağlanamadığı süreye karşılık gelen ve ilgili aya ait toplam sistem kullanım bedeli üzerinden hesaplanan bedel üreticiye ödenir. Elektrik Piyasasında Dağıtım Sisteminde Sunulan Elektrik Enerjisinin Tedarik Sürekliliği, Ticari ve Teknik Kalitesi Hakkında Yönetmelikte tanımlanan, geçici, kısa ve uzun süreli kesintiler ile iletim sisteminden kaynaklanan nedenler ve mücbir sebepler sonucu oluşan kesintiler için ilgili mevzuattaki hükümler geçerlidir.

MADDE 17. EK PROTOKOLLER/EK SÖZLEŞMELER:

(1) Taraflar, karşılıklı mutabakat sağlamaları halinde ve mevzuat çerçevesinde, aralarında bu anlaşmaya ek olarak ilave ve/veya değişiklik protokolleri/sözleşmeleri yapabilir.

(2) Bu anlaşmanın birinci bölümünde yer alan genel hükümler, Enerji Piyasası Düzenleme Kurul kararı ile değiştirilebilir.

MADDE 18. TADİLATLAR:

(1) Yönetmelik, Tebliğ ve Elektrik Piyasasında İletim ve Dağıtım Sistemlerine Bağlantı ve Sistem Kullanımı Hakkındaki Tebliğ hükümlerine göre yapılan tadilat, Ek-7'e işlenir.

MADDE 19. SONA ERME:

1) Bu anlaşma;

a) Üreticinin üretim izninin Yönetmelik ve Tebliğ kapsamında iptal edilmesi veya sona ermesi hallerinde,

b) Üreticinin iflasına karar verilmesi, tasfiye memuru atanması, hukuken tasfiyesini gerektiren bir durum ortaya çıkması veya acze düşmesi hallerinde,

c) Üretim tesisinin geçici kabul işlemlerinin, bu anlaşmanın imza tarihinden itibaren; YG seviyesinden bağlanacak hidroelektrik üretim tesislerinde üç yıl, YG seviyesinden bağlanacak hidroelektrik dışındaki üretim tesislerinde iki yıl, AG seviyesinden bağlanacak tüm üretim tesislerinde bir yıl içinde yapılmaması halinde bu anlaşma bu sürelerin sonunda,

kendiliğinden sona erer.

(2) Bu anlaşmanın sona ermesi, doğmuş ve/veya doğacak mali yükümlülükleri ortadan kaldırmaz.

MADDE 20. KISMİ HÜKÜMSÜZLÜKTE ANLAŞMANIN GEÇERLİLİĞİ:

(1) Bu anlaşmanın herhangi bir hükmünün, batıl, hükümsüz, geçersiz, uygulanamaz veya mevzuata aykırı olduğu tespit edilirse; bu durum anlaşmanın geri kalan hükümlerinin geçerliğini kısmen veya tamamen ortadan kaldırmaz. Yapılan tespit sonucunda anlaşmanın yürütülmesine engel bir halin ortaya çıktığının anlaşılması durumunda, anlaşma Türk Borçlar Kanunu çerçevesinde geçersiz kabul edilir.

MADDE 21. ANLAŞMAZLIKLARIN ÇÖZÜMÜ:

(1) Dağıtım Şirketi ile üreticinin bu anlaşmanın hükümleri üzerinde mutabakata varamamaları halinde, taraflar, anlaşmazlığın çözümü konusunda Kuruma yazılı olarak başvuruda bulunabilir. Anlaşmazlıklar Kurum tarafından çözüme kavuşturulur.

MADDE 22. BİLDİRİMLER:

(1) Bu anlaşma uyarınca yapılacak bildirimler, taahhütlü mektup veya telgraf kullanılarak karşı tarafın ikamet adresine yapılır. Faturaya kayıt düşülerek yapılacak bildirimler de geçerlidir.

(2) Dağıtım şirketinin adres değişikliği, resmi internet sayfasına yayımlanarak bildirilir.

MADDE 23. MEVZUATA UYUM:

(1) Bu anlaşmanın yürürlük tarihinden sonraki mevzuat değişiklikleri tarafları bağlar. Bu anlaşma hükümleri mevzuat hükümlerine uymama gerekçesi olarak ileri sürülemez.

MADDE 24. YÜRÜRLÜĞE GİRME:

(1) Bu anlaşma, cezai şartlar bakımından üreticinin dağıtım sistemini kullanmaya başladığı tarihte diğer hükümleri bakımından imzalandığı tarihte yürürlüğe girer.

Ekler:

1. Bağlantı Bilgileri,
2. Mülkiyet Sınırları Çizelgesi,
3. Bağlantı Tek Hat Şeması
4. Koruma Sistemi Ayarları,
5. Devreye Alma Testleri,
6. İletişim Sistemine İlişkin Bilgiler,

7. Üretici Talep Kontrolü Uygulamalarına İlişkin Hak ve Yükümlülükleri,
8. Tadilat,
9. Tesis Sözleşmesi
10. Diğer Yükümlülükler

B.4 Energy Transmission Line Annotation Details

The parcels and boundaries through which ETL passes:

Title deed of the parcels and annotation indicating that the energy transmission line passes through it:

Sadıkbey Neighborhood 350-block-77-parcel:

BU BELGE TOPLAM 3 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR.

Tarih: 2-12-2024-17:24

webtapu
tapunun kısayolu

Kaydı Oluşturan: MUSTAFA BÜLENT BİLEN (Afyonkarahisar Belediye Başkanlığı)

Tapu Kaydı (Hepsi)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz	Ada/Parsel:	350/77
Taşınmaz Kimlik No:	127978076	AT Yüzölçüm(m2):	524308.01
İl/İlçe:	AFYONKARAHİSAR/MERKEZ	Bağımsız Bölüm Nitelik:	
Kurum Adı:	Afyonkarahisar	Bağımsız Bölüm Brüt YüzÖlçümü:	
Mahalle/Köy Adı:	SADIKBEY Mah.	Bağımsız Bölüm Net YüzÖlçümü:	
Mevkii:	-	Blok/Kat/Giriş/BBNo:	
Cilt/Sayfa No:	28/3781	Arsa Pay/Payda:	
Kayıt Durum:	Aktif	Ana Taşınmaz Nitelik:	Orman

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 -	

1 / 3

			11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
737549159	(SN:47) MALİYE HAZİNESİ VKN:6110312806	-	1/1	524308.01	524308.01	İfraz İşlemi (TSM) 17-03-2023 15026	-

MÜLKİYETE AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Kısıtlı Malik (Hisse) Ad Soyad	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
İrtifak	PLANDATESPİD EDİLDİĞİ ÜZERE 14563 M² KISMIN ÜZERİNDE TEİAŞ GENEL MÜDÜRLÜĞÜ DAİMİ İNTİFA HAKKI VARDIR	MALİYE HAZİNESİ VKN	(SN:9460) TÜRKİYE ELEKTRİK İLETİM A.Ş. (TEİAŞ) VKN:8790304314	Afyonkarahisar - 05-10-2004 00:00 - 9922	

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (**https://webtapu.tkgm.gov.tr** adresinden) **BI6QUskLReS** kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

Sadıkbey Neighborhood 350-block-78-parcel:

BU BELGE TOPLAM 3 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR. Tarih: 20-1-2025-11:16

webtapu tapunun kısayolu

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz
Taşınmaz Kimlik No:	127978077
İl/İlçe:	AFYONKARAHİSAR/MERKEZ
Kurum Adı:	Afyonkarahisar
Mahalle/Köy Adı:	SADIKBEY Mah.
Mevkii:	-
Cilt/Sayfa No:	28/3782
Kayıt Durum:	Aktif

Ada/Parsel:	350/78
AT Yüzölçüm(m2):	4704.84
Bağımsız Bölüm Nitelik:	
Bağımsız Bölüm Brüt YüzÖlçümü:	
Bağımsız Bölüm Net YüzÖlçümü:	
Blok/Kat/Giriş/BBNo:	
Arsa Pay/Payda:	
Ana Taşınmaz Nitelik:	HAM TOPRAK

TAŞINMAZA AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 -	

			11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	
Beyan	Enerji Nakil Hattının İrtifak Alanında Değişiklik Vardır.(Şablon: Diğer)		Afyonkarahisar - 23-05-2014 09:01 - 11167	

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
737549160	(SN:47) MALİYE HAZİNESİ VKN:6110312806	-	1/1	4704.84	4704.84	İfraz İşlemi (TSM) 17-03-2023 15026	-

MÜLKİYETE AİT ŞERH BEYAN İRTİFAK BİLGİLERİ

Ş/B/İ	Açıklama	Kısıtlı Malik (Hisse) Ad Soyad	Malik/Lehtar	Tesis Kurum Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
İrtifak	PLANDATESPİD EDİLDİĞİ ÜZERE 14563 M² KISMIN ÜZERİNDE TEİAŞ GENEL MÜDÜRLÜĞÜ DAİMİ İNTİFA HAKKI VARDIR	MALİYE HAZİNESİ VKN	(SN:9460) TÜRKİYE ELEKTRİK İLETİM A.Ş. (TEİAŞ) VKN:8790304314	Afyonkarahisar - 05-10-2004 00:00 - 9922	

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;

veya Web Tapu anasayfasından (**https://webtapu.tkgm.gov.tr** adresinden) **sqLemb62oT** kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

B.5 Main Access Road Route Zoning Plan

Annex C – Title Deed

TÜRKİYE CUMHURİYETİ
TAPU SENEDİ

TAŞINMAZ BİLGİLERİ

İl:	AFYONKARAHİSAR
İlçe:	MERKEZ
Mahalle/Köy:	İNAZ(DEMİRÇEVRE)
Mevki:	
Ada: 671	Parsel: 1
Yüz Ölçümü: 25.355,53 m2	Cilt/Sayfa No: 37 - 3632
Niteliği:	Tercihli Kullanım Alanı

MALİK BİLGİLERİ

Adı Soyadı/Baba Adı:	Hissesi:	Hisseye düşen m²:
AFYONKARAHİSAR BELEDİYESİ	Tam	25.355,53

TESCİLE İLİŞKİN BİLGİLER

Taşınmaz No: 113217119	Edinme Nedeni: İfraz İşlemi (TSM)	İşlem Bedeli:
Konum Bilgisi:	Tescil Tarihi/Yevmiye No: 16/02/2021 - 6458	Siciline Uygundur Veriliş Tarihi : 16/02/2021 Tolga KODAL Yetkili Müdür Yardımcısı

ASLI GİBİDİR

Hüseyin ÖNDER
Tapu Bürosu Sorumlusu

Mülkiyetin dışındaki ayni ve şahsi haklar ile şerh ve belirtmeler için tapu siciline müracaat edilmesi gerekmektedir.

Annex D Table of Summary of the National Legislation and International Standards

The regulations developed under the Environmental Law aim to specify and identify the procedures and principles of the management of environmental aspects given below.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
Environmental Permit and Licenses			
Regulation on Environmental Impact Assessment	31907	29.07.2022	Scoping of the Project and evaluation of impacts for the pre-construction, construction and operation stages of the Project.
Regulation on Environmental Permits and Licensing	29115	10.09.2014	Requirements for environmental permits and licenses at all stages of the Project.
Regulation on Environmental Auditing	27061	21.11.2008	Requirements for environmental audits to be performed by either Project Owner or governmental authorities during construction and operation stages.
Regulation on the Implementation of the Law Concerning Private Security Services	25606	07.10.2004	During the construction phase for camp site security and during the operation phase for safety purposes.
Air Quality Control and Greenhouse Gas (GHG) Emissions			
Industrial Air Pollution Control Regulation	27277	03.07.2009	During the construction phase, dust emissions.
Exhaust Gas Emission Control Regulation	30004	11.03.2017	Operation of Project vehicles, machinery, and equipment at all phases of the Project.
Biodiversity Conservation and Protection of Nature			
Regulation on Protection of Wildlife and Wildlife Development Area	259637	08.11.2004	Measures to be taken for wildlife protection near to the Project area during the planning phase of the Project.
Chemicals and Other Dangerous Substances			
Regulation on Classification, Labelling, and Package of the Materials and Mixtures	28848	11.12.2013	Taking measures for chemicals and mixtures to be used during construction and operation phases.
Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals	30105	23.06.2017	Determination of chemicals to be used during the operation phase.
Regulation on the Control of Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs)	26739	27.12.2007	Usage of transformers, capacitors, electrical equipment including voltage regulators, switches, oil used in motors, old electrical devices or appliances

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
			containing PCB capacitors, fluorescent light ballasts during the operational phase.
Noise			
Environmental Noise Control Regulation	32029	30.11.2022	Determination of noise emissions and measures to be taken at construction and operation phases.
Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	26392	30.12.2006	Regulating the noise levels caused by noise sources within the Project site at the construction and operation phases.
Soil and Land Use			
Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	27605	08.06.2010	Determination of risks of soil contamination at construction and operation phases.
Regulation on Control of Excavated Soil, Construction and Demolition Wastes	25406	18.03.2004	Management of excavated soil and construction and demolition wastes at the source.
Regulation on Protection, Use, and Planning of Agricultural Lands	30265	09.12.2017	Management of change in the land use during the planning phase of the Project.
Waste			
Regulation on Waste Management	29314	02.04.2015	Management of waste from generation to disposal without harming the environment and human health during construction and operation phases.
Zero Waste Regulation	30829	12.07.2019	General principles regarding the establishment, development, monitoring, financing, recording and certification of the zero waste management system in line with sustainable development goals during construction and operation phases.
Regulation on Packaging Waste Control	30283	27.12.2017	Preventing the formation of packaging waste, reducing the amount of unavoidable packaging waste to be disposed of using reuse, recycling and recovery methods in construction and operation phases.
Regulation on Waste Oil Management	30985	21.12.2019	Waste oils included in the definition of waste oil and the management, recovery, disposal of these wastes, precautions to be taken and notifications to be made
Regulation on Medical Waste Control	29959	25.01.2017	Collection of medical waste in the places where it is produced, temporary storage,

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
			transportation to the medical waste processing facilities and disposal
Regulation on Control of Waste Electrical and Electronic Equipment	28300	22.05.2012	Management of electrical and electronic equipment wastes during construction and operation phases.
Regulation on Control of Waste Batteries and Accumulators	25569	31.08.2004	Establishment of a collection system and management for the recovery or final disposal of waste batteries and accumulators.
Regulation on Control of End-of-life Tires	26357	25.11.2006	Establishing a collection and management system for ensuring the necessary regulations and standards in the management of end-of-life tires during the construction and operation phases.
Water and Wastewater			
Regulation on the Protection of Ground Waters against Pollution and Deterioration	28257	07.04.2012	Protection of groundwater sources against pollution during construction and operation phases.
Regulation on the Control of Pollution Caused by Hazardous Substances in and around Water Environment	26005	26.11.2005	Management of hazardous substances during construction and operation phases.
Regulation on Wastewater Collection and Removal Systems	29940	06.01.2017	Procedures and principles regarding the planning, design and project design, construction and operation of wastewater collection and removal systems.
Structural Safety			
Regulation on Structures to be Built in Natural Disaster Areas	26582	14.07.2007	Management of construction works within the scope of the Project.
Regulation on Building Constructions in Earthquake Zones	26454	06.03.2007	Management of construction works within the scope of the Project.
Regulation on Building Earthquake of Turkiye	30364	18.03.2018	Measures to be taken for the design and construction works under the impact of earthquakes and the evaluation of the performance of existing buildings under the impact of earthquakes.
Regulation on the Protection of Buildings from Fire	26735	19.12.2007	Measures to be taken for fire protection during construction and operation phases.
Traffic			
Regulation on the Road Transportation of Hazardous Goods	28801	24.10.2013	Hazardous goods to be transported during construction and operation phase.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
Regulation on Highway Traffic	23053	18.07.1997	Regulating speed limits of vehicles and machinery used during construction and operation phases.
Regulation on Traffic Signs	18789	19.06.1985	Regulating the traffic signs to be used during the construction and operation phases
Health and Safety and Labor			
Regulation on Emergency Situations in Workplaces	28681	18.06.2013	Preparation of emergency plans, prevention, protection, evacuation, firefighting, first aid and similar studies in workplaces.
Regulation on duties and responsibilities of OHS Specialists	28512	29.12.2012	Defines roles and responsibilities of OHS specialists
Regulation on duties and responsibilities of Occupational Physicians and other medical personnel	28713	20.07.2013	Defines roles and responsibilities of Occupational physicians and the medial personnel
Regulation on Health and Safety at Construction Works	28786	05.10.2013	Measures to be taken during construction phase.
Regulation on Health and Safety Conditions Regarding Use of Work Equipment	28628	25.04.2013	Measures to be taken during construction phase related to use of equipment.
Regulation on Health and Safety Precautions Regarding Working with Chemicals	28733	12.08.2013	Measures to be taken during construction and operation phase related to use of chemicals.
Regulation on Protection of Employees from the Hazards of Explosive Environments	28633	30.04.2013	It regulates the procedures and principles regarding the precautions to be taken in order to protect the employees from the dangers of explosive atmospheres that may occur in the workplaces in terms of health and safety.
Regulation on Health and Safety Regarding Temporary and Time-Limited Works	28744	23.08.2013	Protection of employees with a temporary or fixed-term employment contract at the same level as other employees in the workplace in terms of health and safety.
Regulation on Health and Safety Signs	28762	11.09.2013	Measures to be taken during construction and operation phases.
Regulation on Management of Dust	289812	05.11.2013	Measures to be taken to combat dust in terms of occupational health and safety to prevent the risks that may arise from dust in the workplaces and to ensure that the workers are protected from the effects of dust.

Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	29204	13.12.2014	Preparation of safety data sheets to ensure effective control and surveillance against the negative effects of harmful substances and mixtures on human health and the environment during construction and operation phases.
Law on Occupational Health and Safety (6331)	28339	20.06.2012	Health and safety measures to be taken during construction and operation stages.
Regulation on Personal Protective Equipment	30761	01.05.2019	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Protection of Workers from Risks Created by Noise	28721	28.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Risk Assessment for Occupational Health and Safety	28512	29.12.2012	Determination of occupational health and safety risks occurring during construction and operation phases.
Regulation on Sub-contractors	27010	27.09.2008	Management of contactors/sub-contractors during construction and operation phases.
Regulation on Use of Personal Protective Equipment in Workplaces	28695	02.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on Vocational Training of the Employees Working in Dangerous and Highly Dangerous Workplaces	28706	13.07.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on the Procedures and Principles of Employee Health and Safety Training	28648	15.05.2013	Measures to be taken during construction and operation phases to ensure the health and safety of employees.
Regulation on High Current Electrical Facilities	24246	30.11.2000	Covers measures regarding the safe installation, construction, operation and maintenance of high current electrical facilities.
Regulation on Manual Handling	28717	24.07.2013/	Defines the safe procedures for safe handling of goods and equipment using manual manpower.
Cultural Heritage			
Law on Protection of Cultural and Natural Assets	18113	23.07.1983	During chance finds at the construction phase, determination of measures to be taken.

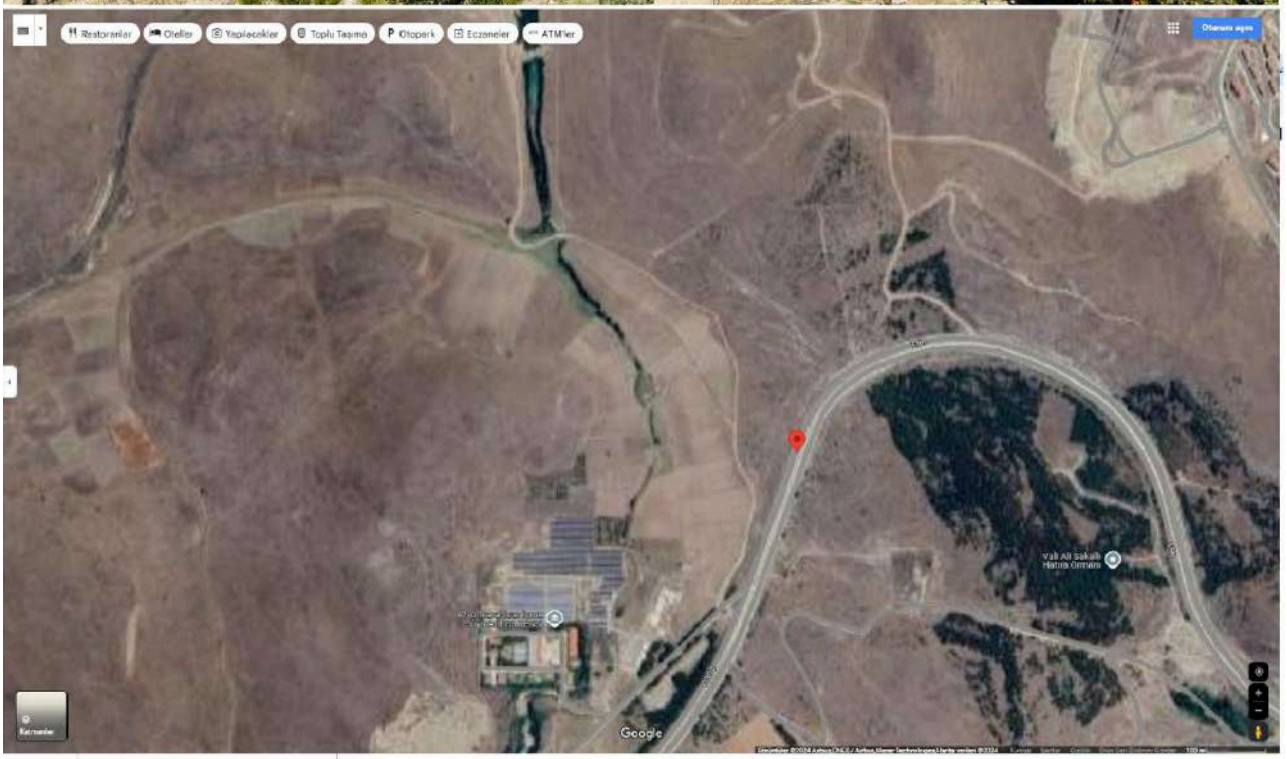
Regulations / Communiques	OG Number	OG Date	Relevance/Implication for the Sub-project
Regulation on Researches, Drillings and Excavations in relation to the Cultural and Natural Assets	18485	10.08.1984	Defining the procedures and obligations concerning the cultural and natural assets found out during construction.

The international agreements and conventions ratified by Türkiye are listed below:

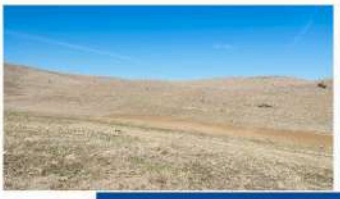
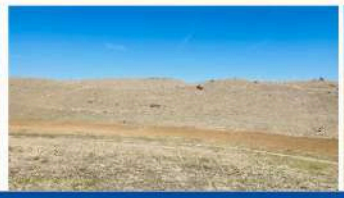
International Agreements and Conventions	Year of the Agreement / Conventions
Paris Agreement	2021
UN Framework Convention on Climate Change (UNFCCC)	2004
Rio Declaration on Environment and Development and Statement on Forest Principles	1992
Convention on Biological Diversity (Rio Convention)	1992
Paris Convention on the Protection of the World Cultural and Natural Heritage	1975
Barcelona Convention on the Protection of the Mediterranean Sea Against Pollution	1976
The Convention for the Protection of Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)	1981
Bern Convention on Protection of Europe's Wildlife and Living Environment	1982
Vienna Convention for the Protection of the Ozone Layer	1988
Montreal Protocol on Substances Depleting the Ozone Layer	1990
Convention on Wetlands of International Importance, Especially as Waterfowl Habitat	1994
Convention on International Trade in Endangered Species of Wild Fauna and Flora	1996
UN Convention to Combat Desertification	1998
United Nations Europe Economic Commission Convention on Transboundary Effects of Industrial Accidents	2000

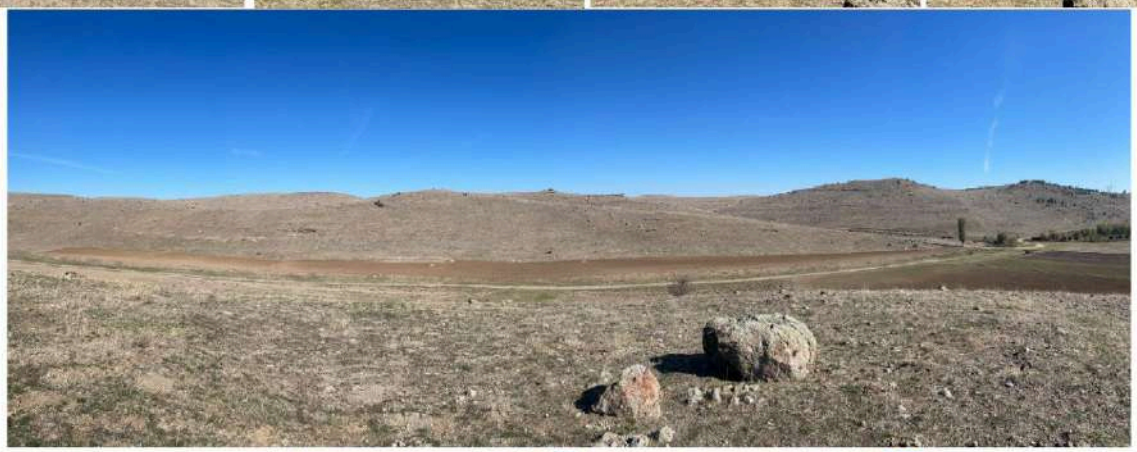
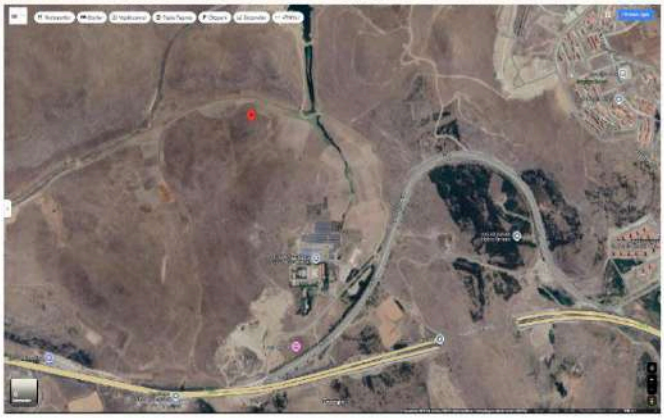
International Agreements and Conventions	Year of the Agreement / Conventions
Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)	2001
Stockholm Convention on Persistent Organic Pollutant	2010
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)	1972
Mediterranean Sea Protocol Concerning Specially Protected Areas and Biodiversity including related protocols	1988
International Labor Organization (ILO) Convention on Forced Labor	1930
ILO Convention on Freedom of Association and Protection of the Right to Organize	1948
ILO Convention on Right to Organize and Collective Bargaining	1949
ILO Convention on Equal Remuneration	1951
ILO Convention on Abolition of Forced Labor	1957
ILO Convention on Discrimination (Employment and Occupation)	1958
ILO Convention on Worst Forms of Child Labor	1999

Annex E – Site Photographs




Restoranlar
Oteller
Yapılacaklar
Toplu Taşıma
Otopark
Eczaneler
ATM'ler
Google


Restoranlar
Oteller
Yapılacaklar
Toplu Taşıma
Otopark
Eczaneler
ATM'ler
Google

Annex F – E&S Incident Notification Form Template

1) Incident Details		
Date of Incident: [*Please indicate*]	**Time of Incident:** [*Please indicate*]	
Location of the Incident:	[*Please indicate*]	
Full Name of Sub-borrower:	[*Please indicate*]	
Date Reported to ILBANK: [*Please indicate*]	**Reported to ILBANK by**: [*Please indicate]*	**Notification Type**: [*Please indicate; e-mail/phone call/media notice/other]*
Date Reported to WB: [*Please indicate*]	**Reported to WB by**: [*Please indicate]*	**Notification Type**: [*Please indicate; e-mail/phone call/media notice/other]*
Full Name of the Contractor of the Subproject:	[*Please indicate]*	
Full Name of the Sub-contractor involved in the incident:	[*Please indicate]*	

2) Type of incident (please check all that apply)[6]	
☐ Fatality	☐ Acts of violence/protest
☐ Lost time injury	☐ Unexpected impacts on heritage resources
☐ Displacement without due process	☐ Unexpected impacts on biodiversity resources
☐ Child labor	☐ Environmental pollution incident
☐ Forced labor	☐ Dam failure
☐ Disease outbreaks	☐ Other

3) Description/Narrative of Incident

For example:

I. *What is the incident?* [*Please briefly describe*]

II. *What were the conditions or circumstances under which the incident occurred (if known)?* [*Please briefly describe*]

III. *Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?* [*Please briefly describe*]

IV. *Is the incident still ongoing or is it contained?* [*Please briefly describe*]

V. *Have any relevant authorities been informed?* [*Please briefly describe*]

[6] See Appendix 2 for definitions.

4) Actions taken to contain the incident

Short Description of Action	Responsible Party	Expected Date	Status

For incidents involving a Contractor:

Name of Contractor:
Have the works been suspended? Yes ☐ No ☐
Note: Please attach a copy of the instruction suspending the works

5) What support has been provided to affected people

[*Please briefly describe*]

APPENDICES

Appendix 1: Supporting documents

[Note: Please mark the relevant documents available at this stage and submit them attached to the report]:

☐ Copy of the social security registration records of the victims and involved persons
☐ Copy of the instruction suspending the works
☐ Statement of victims
☐ Statement of witnesses
☐ Copies of notifications done to the relevant authorities
☐ Copies of legal investigation reports of relevant authorities
☐ Copies of E&S training records of the affected and involved persons
☐ Copies of OHS training records of the affected and involved persons
☐ Photographs related to the incident
☐ Others

Appendix 2: Incident Types

The following are incident types to be reported using the environmental and social (E&S) incident response process:

Fatality: Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

Lost Time Injury: Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

Acts of Violence/Protest: Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

Disease Outbreaks: The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

Displacement Without Due Process: The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.

Child Labor: An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

Forced Labor: An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

Unexpected Impacts on heritage resources: An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

Unexpected impacts on biodiversity resources: An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

Environmental pollution incident: Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hours or have resulted in harm to the environment.

Dam failure: A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

Other: Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of

whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

Annex G – E&S Incident Investigation Form Template

1) Investigation Findings

For example:

I. *where and when the incident took place,*
II. *who was involved, and how many people/households were affected,*
III. *what happened and what conditions and actions influenced the incident,*
IV. *what were the expected working procedures and were they followed,*
V. *did the organization or arrangement of the work influence the incident,*
VI. *were there adequate training/competent persons for the job, and was necessary and suitable equipment available,*
VII. *what were the underlying causes; where there any absent risk control measures or any system failures.*

2) Corrective Actions from the investigation to be implemented (to be fully described in Corrective Action Plan)

Action	Responsible Party	Expected Date

3a) Fatality/Lost Time Injury Information

Fatality ☐ **Lost time injury ☐**

Immediate cause of fatality/injury for worker or member of the public (please check all that apply) [7]**:**

☐ Caught in or between objects
☐ Struck by falling objects
☐ Stepping on, striking against, or struck by objects
☐ Drowning
☐ Chemical, biochemical, material exposure
☐ Falls, trips, slips
☐ Fire & explosion
☐ Electrocution
☐ Homicide
☐ Medical Issue
☐ Suicide
☐ Project Vehicle Work Travel
☐ Non-project Vehicle Work Travel
☐ Project Vehicle Commuting
☐ Non-project Vehicle Commuting
☐ Vehicle Traffic Accident (Members of Public Only)
☐ Other

Name	Age/ Date of Birth	Nationality	Gender	Date of Fatality/ Injury	Cause of Fatality/ Injury	Affected Party (Employee/ Public)
			☐ Female ☐ Male			☐ Sub-borrower employee ☐ Contractor employee ☐ Sub-contractor employee ☐ Public

[7] See Appendix 1 for definitions

3b) Financial Support/Compensation Types (to be fully described in Corrective Action Plan template – template is given in Appendix 3)

☐ No Compensation Required
☐ Workman's Compensation/National Insurance
☐ Contractor Direct
☐ Contractor Insurance
☐ Other
☐ Court Determined Judicial Process

Name	Compensation Type	Compensation Amount (TRY)	Responsible Party

4) Supplementary Narrative

Appendix 1: Definition of fatality/injury immediate causes

1. **Caught in or between objects:** caught in an object; caught between a stationary object and moving object; caught between moving objects (except flying or falling objects).
2. **Struck by falling objects:** slides and cave-ins (earth, rocks, stones, snow, etc.); collapse (buildings, walls, scaffolds, ladders, etc.); struck by falling objects during handling; struck by falling objects.
3. **Stepping on, striking against, or struck by objects:** stepping on objects; striking against stationary objects (except impacts due to a previous fall); Striking against moving objects; Struck by moving objects (including flying fragments and particles) excluding falling objects.
4. **Drowning:** respiratory impartment from submersion/emersion in liquid.
5. **Chemical, biochemical, material exposure:** exposure to or contact with harmful substances or radiations.
6. **Falls, trips, slips:** falls of persons from heights (e.g., trees, buildings, scaffolds, ladders, etc.) and into depths (e.g., wells, ditches, excavations, holes, etc.) or falls of persons on the same level.
7. **Fire & explosion:** exposure to or contact with fires or explosions.
8. **Electrocution:** exposure to or contact with electric current.
9. **Homicide:** a killing of one human being by another.
10. **Medical Issue:** a bodily disorder or chronic disease.
11. **Suicide:** the act or an instance of taking, or attempting to take, one's own life voluntarily and intentionally.
12. **Others:** any other cause that resulted in a fatality or injury to workers or members of the public.

Vehicle Traffic

13. **Project Vehicle Work Travel:** traffic accidents in which project workers, using project vehicles, are involved during working hours and which occur in the course of paid work.
14. **Non-project Vehicle Work Travel:** traffic accidents in which project workers, using non-project vehicles, are involved during working hours and which occur in the course of paid work.
15. **Project Vehicle Commuting:** traffic accidents in which project workers, using project vehicles, are involved while travelling to (i) the worker's principal or secondary

residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.

16. Non-project Vehicle Commuting: traffic accidents in which project workers, using non-project vehicles, are involved while travelling to (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his or her meals; or (iii) the place where he or she usually receives his or her remuneration.

17. Vehicle Traffic Accident (Members of Public Only): traffic accidents in which non-project workers/members of the public are involved in an accident while travelling for any purpose.

Appendix 2: Supporting documents

[Note: Please mark the relevant documents available and submit them attached to the report]:

☐ Copy of the social security registration records of the victims and involved persons

☐ Copy of the instruction suspending the works

☐ Statement of victims

☐ Statement of witnesses

☐ Copies of notifications done to the relevant authorities

☐ Copies of legal investigation reports of relevant authorities

☐ Copies of E&S training records of the affected and involved persons

☐ Copies of OHS training records of the affected and involved persons (such as basic OHS training, induction training, visitors training, job-specific training, refreshment training, etc.)

☐ Photographs related to the incident

☐ Health examination records of the affected and involved employees

☐ Copies of Personal Protective Equipment delivery forms (signed copies)

☐ Root Cause Analysis completed for the incident

☐ Information/documentation related to any judicial process

☐ Others

Appendix 3: Corrective Action Plan template

Action No:	Brief Description of E&S non-compliance	Corrective Action	Financial and Human Resources Required	Responsible Party	Due Date for Completion of Corrective Action	Indicators for Successful Completion of Corrective Action	Status of Corrective Action

Annex H Chance Find Procedure

Introduction

This document describes the Chance Find Procedure for subproject, outlining the procedures that will be followed in case of chance finds occur during the construction activities associated with the subproject.

Scope

This Chance Find Procedure (CFP) will be implemented for 3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project of Afyonkarahisar Municipality in order to manage any chance finds that may be encountered during the construction activities. The purpose of the CFP document is to:

- Outline the applicable legislation and standards relevant to this procedure;
- Define roles and responsibilities;
- Define project commitments, operational procedures, training requirements and guidance relevant to this procedure; and
- Define monitoring and reporting procedures.

Although there are no known archaeological sites or remains within the subproject area, it is considered that there may be potential to encounter archaeological findings during the construction of the subproject. The potential to lead to the discovery or adverse impact of archaeological resources may occur during the activity of driving the panels into the ground. This CFP is prepared in order to provide information to the contractors and employees regarding the actions to be taken in case of an archaeological chance find discovery.

Legislation and Standards

Legislation and standards that apply to the project comprise the following:

- Word Bank Environmental and Social Standard (ESS) 8: Cultural Heritage
- Applicable Turkish laws and national standards
- Other commitments to and requirements of Turkish government authorities
- Other industry guidelines with which the project has committed to comply

In Turkey, movable and immovable cultural and natural assets are protected and preserved by the Law on Preservation of Cultural and Natural Assets (Law No. 2863) published in the Official Gazette dated 23.07.1983 and numbered 18113. Law 2863 establishes legal protection for the following:

- All natural assets and immovable cultural assets constructed up until the end of the 19th century,
- Any immovable cultural asset from after the end of the 19th century, identified by the Ministry of Culture and Tourism as an important asset worthy of preservation,
- All immoveable cultural assets located within archeological sites,
- buildings/areas that have witnessed significant historical events during the National War and the foundation of the Turkish Republic and dwellings that have been used by Mustafa Kemal ATATÜRK, regardless of time and registration.

The Ministry of Culture and Tourism is the responsible body to take decisions for protection of cultural heritage in Turkey at the national level. As part of the Ministry, the High Commission for the Protection of Cultural Assets is responsible for protecting and restoring immovable cultural assets. Implementation of the decisions and regulations issued by the Ministry are undertaken by local administrations. At local level, there are Cultural Assets Protection Regional Boards defined by the Ministry of Culture and Tourism, which are responsible for preservation, registration and classification of cultural heritage within their respective jurisdictions. The relevant Regional Board for the project is the Afyonkarahisar Cultural Heritage Protection Regional Board Directorate." According to Law 2863, all the natural and cultural assets qualified for legal preservation are properties of the State. Therefore, regional boards have the power and authority to provide legal protection to the preservation sites and to approve or reject all the activities, which have potential negative impacts on the preservation sites such as construction, demolition and excavation activities.

Roles and Responsibilities

Principal roles and responsibilities for the implementation of this procedure are outlined below.

Role	Responsibilities
Contractor -Project Manager	• Overall responsibility for the development, review, approval and coordination of the numerous activities required to initiate, conduct and complete construction. • Ensure that this procedure is prepared, and updated as required, based on the activities undertaken as part of the project. • Ensure that adequate resources are made available to implement the procedures and guidelines outlined in this procedure.
Contractor - Environmental and Social (E&S) Expert	• Initiation, development, implementation and coordination of the CFP during construction. • Ensure that adequate training is given to all site personnel and sub- contractors, covering the procedures and guidelines outlined in this procedure. Establish appropriate control procedures and conduct audits as necessary. • Consultation with and reporting to relevant government bodies in case of potential archeological chance finds. • Record all confirmed chance finds by filling up the “Chance Find Reporting Form” and maintain copies in a log-book. Ensure that the chance finds log-book is up to date.
Contractor - Site Manager	• Day-to-day implementation of the provisions of the CFP in the field during construction. • Notify the E&S Expert regarding potential chance finds during construction.
Employees	• Understand and comply with archeological chance finds procedures and guidelines outlined in this procedure. • Reporting of the potential chance finds to the Site Manager.

Impact Avoidance and Mitigation

In the event of an archaeological discovery, the following actions will be implemented:

- All staff involved in land clearance and excavation activities will take responsibility for managing archaeological protection and will be trained in these aspects by the E&S Expert.
- In case any potential chance find is encountered, all construction activities will cease immediately in the vicinity of the chance find.

- The Site Manager will be contacted immediately. The site location discovered, the characteristics of the potential archaeological material and photos will be recorded by the Site Manager, who in turn will inform the E&S Expert.
- Afyonkarahisar Museum Directorate will be notified at the latest within three days after the chance find is encountered. Contact details of the Afyonkarahisar Museum Directorate are given below:

Address: Zafer Neighborhood , Kurtulus Street No: 92, Center/AFYONKARAHISAR

Telephone: (272) 2151191

E-mail: afyonmuzesi@ktb.gov.tr

- The site and its vicinity will be secured 24 hours a day against damage or loss, until inspection by the authority.
- The E&S Expert will fill up a “Chance Find Report Form” for each confirmed chance find and inform the Project Manager about the date that the construction work can resume, which is determined by the authorities concerning the conservation of the heritage.
- Further steps to be followed and a proper plan to be implemented for the management of the finds (Changes in the layout, conservation, preservation, restoration and salvage) will be decided and reported in writing by the authorities in charge.
- Photographs of the potential artifacts that are likely to be encountered in the construction site are presented in the following pages to be used during the training of the relevant staff.

Verification and Monitoring

E&S Expert/s will record all cases of archaeological chance finds. He/she will fill up a “Chance Find Reporting Form” for each chance find confirmed by the authority and maintain copies in a logbook. A sample of a reporting form which can be used to record chance finds is included below. The chance find logbook will be summarized on an annual basis and records included in semi-annual monitoring reports to verify that correct management procedures have been followed. Action items will be taken in cases of non-adherence to this CFP.

Reporting

Contractor will comply with reporting requirements including chance finds defined in site-specific ESMP (contractor will develop monthly and quarterly monitoring reports and submit to through supervision consultant; 3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project of Afyonkarahisar Municipality will examine submit the reports to ILBANK quarterly (and monthly if requested by ILBANK); ILBANK will inform the World Bank by providing regular semi-annual monitoring reports.

3180 kWp/ 3000 kWe Solar (Photovoltaic) Power Plant Project of Afyonkarahisar Municipality Chance Find Reporting Form		
REGISTRATION		
Name of recorder:		
Date and time of discovery:		
Site Name:	**Coordinates** **X Y**	
Description of find:		
Photograph:		
Estimated weight and dimensions:		
CONTACT PERSON		
Name/Title/Duty:		
Date and Time:		
Contact information:		
Details of conversation:		
DECISIONS		

Any protection measures to be implemented:	
Movable or immovable: If moved, please specify the new location.	
Further actions required:	
Recommence date and time:	
Notes:	
SUBMISSION	
Name:	**Date:**

Annex İ – Change Notification Form

Change Notification Form	
Subproject Name	
Subproject Location	
Subproject Phase	☐ Pre-construction ☐ Construction ☐ Operation
Name of the Institution Notifying the Change	
Date	
Category of the Change *(please select all that apply)*	☐ Legislative Change ☐ Design Change ☐ Schedule Change due to E&S factors ☐ Project Schedule Changes due to technical, financial, legal or administrative factors ☐ Changes due to E&S issues encountered at Subproject implementation ☐ Contractor or Construction Supervision Consultant Change ☐ Other *(please specify below)*
Detailed Description of the Change(s)	
Documents Submitted with Change Notification Form	
Name of the Staff Notifying the Change	
Position of the Staff Notifying the Change	
Signature	

Change Notification Form