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SUSTAINABLE CITIES PROJECT – II
WITHIN THE SCOPE OF ADDITIONAL FINANCING

CONSULTANCY SERVICE FOR TECHNICAL FEASIBILITY PREPARATION

SALİHLİ MUNICIPALITY
SOLAR POWER PLANT
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

JANUARY 2025

SÜRDÜRÜLEBİLİR ŞEHİRLER
T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI
İLBANK TÜRKİYE'NİN YAPICI GÜCÜ
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ABBREVIATIONS

%	Percentage
€	Euro
µg	microgram
AF	Additional Financing
dB	Decibel
EHS	Environment, Health and Safety
EIA	Environmental impact assessment
EMRA	Energy Market Regulatory Authority
ESG	Environmental Social Governance
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
F.I.	Financial Intermediation
FAA	US Federal Aviation Administration
Ha	Hectare
IFC	International Finance Corporation
ILBANK	ILBANK A.Ş.
Inc.	Incorporated company
kg	Kilogram
KVS	Short Term Limit Value

kwe	Kilowatt Electricity
kwh	Kilowatt Hour
kwp	Kilowatt Peak
l	Liter
LARPF	Land Acquisition and Involuntary Resettlement Policy Framework
m	Metre
m^2	Square Meters
m^3	Cubic meter
MWh	Megawatt Hour
NGO	Non-Governmental Organizations
No.	Number
OHS	Occupational Health and Safety
PV SYST	Photovoltaic System Software
SCP	Sustainable Cities Project
SPP	Solar power plant
TAP	Portable Battery Manufacturers and Importers Association
TL	Turkish lira
TURKSTAT	Turkish Statistical Institute
UVS	Long Term Limit Value
WB	World Bank

Executive Summary

World Bank (WB) and Europe Technical and financial support from the Union (EU) support ILBANK Inc. (ILBANK), Sustainable Cities Project (SCP) projects series is implemented. SCP, participant municipalities and public services infrastructure service needs to improve aims.

SCP-II Additional Finance (AF) focuses on expanding next-generation operations into urban planning systems, particularly the broader sectors that will deliver and program urban transportation. It includes zero waste, energy efficiency, **renewable energy**, municipal social services, disaster recovery, urban renewal and restoration sectors.

Solar Energy Power Plant Project (5.158 kWp, 4.500 kWe) is planned by Salihli Municipality within the borders of Manisa Province, Salihli District, Mersinli Neighbourhood, 35-38 lots of 185 block. The coordinate list and location map of the planned project area are given in the attachment (See Annex-1). The location map of the project is shared in Annex-2. The project area belongs to Salihli Municipality. The land registry record is given in the attachment (See Annex-3).

The project in question is one of the subprojects within the scope of the Sustainable Cities Project - II - Additional Financing (SCP-II-AF), supported by World Bank financing in order to support sustainable development in cities in Türkiye. The investment to be made within the scope of the project will comply with both National legislation and World Bank Safeguard Policies. In addition, ILBANK will act as a financial intermediary to ensure compliance with relevant World Bank policies and procedures.

With the project put into operation, approximately 86,28% of the total electricity consumption of Salihli Municipality will be met. While determining this rate, the last year consumption data of Salihli Municipality (9.550 MWH) and the production of the SPP Project (8.240 MWH) were taken as basis.

Project production data was calculated using EMRA data, global sunshine duration and PV SYST program. In addition to contributing to the economy with an annual production of 5.107 MWH, the power plant will also prevent 1.278 tons of carbon emissions due to solar energy being a renewable clean energy source.

Since the area where the power plant will be built is 2,30 km away from the nearest residential area, Mersinli Neighborhood, it will not affect the local people too much. During the installation of the power plant, short-term excavation work, transformer installation and approximately 2.950 m long energy transmission line operations will take approximately 10 days. Apart from that, there is no situation that will negatively affect the local people due to the transportation of materials.

Technical analyses of the project have been made. The project area has been examined and photographed. The photographs of the project are given in the attachment (See Appendix-4).

1. Subproject Description

The specific purpose of the project is; the aim is to produce electricity using solar energy, which is a renewable energy source, with the solar energy panels to be installed within the scope of the project. In this way, Salihli Municipality will be able to use the budget allocated to electricity more efficiently and will be able to better respond to the needs of improving public and environmental health.

The constant increase in energy needs and the constant increase in unit costs significantly increase the energy costs of the municipality. Reducing carbon emissions through environmental policies and international agreements is another factor of this project. The satellite image of the project area is given in Figure 1.

Figure 1. The Project Area Satellite Image and Energy Transmission Line

Mersinli Neighbourhood is located to the east of the project area and approximately 2,30 km away. Access to the project site is provided from the D300 highway, as seen in Figure 2.

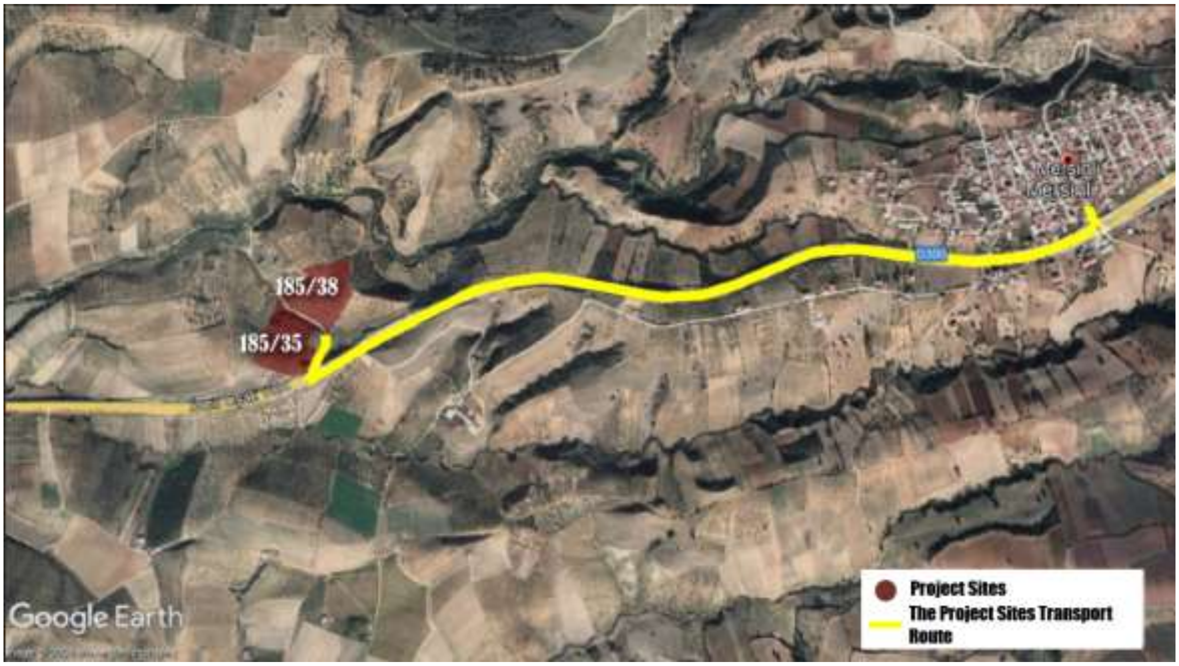

Figure 2. The Project Area Transport Route

Within the scope of the planned project, the connection agreement given by GEDİZ EDAŞ is given in the attachment (See Annex-9). In this direction, a transmission line and grid connection will be made at a distance of approximately 2.950 meters. The satellite image of the energy transmission line route is given in Figure 3 and the project is given in the attachment (See Annex-6).

The electricity transmission line route is given below.

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Figure 3. Project Area – Energy Transmission Line Route

2. Environmental and Social Screening

Under the World Bank's Operating Policy on Environmental Assessment (OP 4.01), projects are classified under categories A, B or C, depending on the degree of their potential impact on the environment.

Category A) Can be defined as projects that have significant negative environmental and social impacts. The impacts of these projects are large-scale, irreversible, sensitive, diverse and cumulative.

Category B) can be defined as projects whose environmental and social impacts are typically site-specific and reversible in nature. Although the impacts of these projects are less than the impacts of subprojects within the scope of Category A, the precautions and monitoring phases can be designed more easily.

Category C) Can be defined as projects that will have minimal or no environmental impact.

By Salihli Municipality, within the borders of Manisa province, Salihli District, Mersinli Neighbourhood, 35 and 38 lots of 185 Block "Solar Energy" Power Plant Project (5.158 kwp, 4.500 kwe)" is planned. The planned project is considered within the scope of the EIA Regulation, which came into force after being published in the Official Gazette dated 29.07.2022 and numbered 31907, "EIA Not Necessary" decision was secured on

September 30, 2022. The sub-project is categorized as Category B where the potential impacts are site-specific and reversible in nature and can be managed by readily designed mitigatory measures.

3. Legal and Institutional Framework

In this section, a summary of national legislation, international standards and guidelines regarding the project and its activities is presented.

3.1. National Legal Framework

There is sufficient legal and administrative basis in our country for environmental and social management during the implementation of development projects. In the ESIA study, both Türkiye and the World Bank environmental and social policy documents and guides are taken into consideration. Many regulations and decrees have been put into effect within the scope of Environmental Law No. 2872. Article 10 of the "Environmental Law" states that an EIA report must be prepared for investment projects that may cause negative environmental impacts due to their planned actions.

The "Environmental Impact Assessment Regulation", which came into force after being published in the Official Gazette dated 29.07.2022 and numbered 31907, defines the types of projects for which the EIA report is required and the issues that need to be specifically addressed.

Solar Power Plant application is considered within the scope since it is included in Annex-2 list according to the national EIA legislation. The project in question is classified as Category B within the scope of the World Bank Environmental Assessment Policy (OP 4.01).

In addition to the EIA Regulation, other regulations regarding environment, health and safety and social issues are given below:

- Regulation on Water for Human Consumption
(OG 17.02.2005 Date and 25730 Number)
- Waste Management Regulation
(OG 02.04.2015 Date and 29314 Number)
- Zero Waste Regulation
(OG 12.07.2019 Date and Number 30829)
- Packaging Waste Control Regulation
(OG 26.06.2021 Date and Number 31523)
- Regulation on the Management of Waste Electrical and Electronic Equipment

(OG 26.12.2022 Date and Number 32055)

- Industrial Air Pollution Control Regulation
(OG 03.07.2009 Date and 27277 Number)
- Air Quality Assessment and Management Regulation
(OG 06.06.2008 Date and 26898 Number)
- Regulation on Control of Exhaust Gas Emissions
(OG 11.03.2017 Date and 30004 Number)
- Environmental Noise Control Regulation
(OG 30.11.2022 Date and Number 32029)
- Regulation on Noise Emission in the Environment Created by Equipment Used in Open Areas
(OG 30.12.2006 Date and 26392 Number)
- Water Pollution Control Regulation
(OG 31.12.2004 Date and 25687 Number)
- Regulation on the Control of Waste Batteries and Accumulators
(OG 31.08.2004 Date and 25569 Number)
- Medical Waste Control Regulation
(OG 25.01.2017 Date and 29959 Number)
- Regulation on Control of Excavation Soil, Construction and Demolition Waste
(OG 18.03.2004 Date and 25406 Number)
- Regulation on Control of Soil Pollution and Point Source Contaminated Sites
(OG 08.06.2010 Date and 27605 Number)
- Regulation on the Protection of Employees from Noise-Related Risks
(OG 28.07.2013 Date and 28721 Number)
- Occupational Health and Safety Regulation in Construction Works
(OG 05.10.2013 Date and 28786 Number)
- Health and Safety Signs Regulation
(OG 11.09.2013 Date and 28762 Number)
- Regulation on Health and Safety Conditions in the Use of Work Equipment
(OG 25.04.2013 Date and Number 28628)
- Occupational Health and Safety Risk Assessment Regulation
(OG 29.12.2012 Date and 28512 Number)
- Regulation on Grounding in Electrical Installations
(OG 21.08.2001 Date and 24500 Number)
- Electrical High Current Facilities Regulation
(OG 30.11.2000 Date and 24246 Number)
- Electrical Internal Facilities Regulation
(OG 04.11.1984 Date and 18565 Number)
- Regulation on the Authorities, Duties and Responsibilities of Electrical Scientists

(OG 11.11.1989 Date and 20339 Number)

- Subcontracting Regulation
  (OG dated 27.09.2008 and numbered 27010)
- Regulation on Solar Energy-Based Electricity Production Facilities
  (OG 19.06.2011 Date and Number 27969)
- Regulation on the Use of Personal Protective Equipment in Workplaces
  (OG 02.07.2013 Date and 28695 Number)
- Regulation on Noise Emission in the Environment Created by Equipment Used in Open Areas
  (OG 30.12.2006 Date and 26392 Number)
- Labor Law No. 4857
- Occupational Health and Safety Law No. 6331
- Environmental Law No. 2872
- Expropriation Law No. 2942
- Soil Conservation and Land Use Law No. 5403
- Energy Efficiency Law No. 5627
- Right to Information Law No. 4982
- General Hygiene Law No. 1593
- Law No. 5346 on the Use of Renewable Energy Resources for the Purpose of Electrical Energy Production
- Law No. 2863 on the Protection of Cultural and Natural Assets
- National Parks Law No. 2873
- Forest Law No. 6831

3.2. International Standards

For the investments defined and outlined within the scope of this Project and in accordance with the World Bank's Environmental Assessment Policy (OP 4.01), an Environmental and Social Management Report (ESMP) has been prepared by the Salihli Municipality.

World Bank Environmental and Social Protection Policies include environmental assessments of projects, environmental and social adverse impacts, and other policies regarding impact mitigation and prevention. The following operational policies are included within the framework of ESMP;

- Natural Habitats (OP 4.04)
- Physical Cultural Resources (OP 4.11)
- Indigenous Peoples (OP 4.10)
- Land Acquisition and Involuntary Resettlement (OP 4.12)

- Physical Cultural and Other World Bank Protection Measures

The Environmental and Social Monitoring System will cover the following:

- General Environment
- air emissions
- Soil
- Surface water and groundwater
- biodiversity
- Noise and dust emissions
- Social Monitoring

The International Finance Corporation (IFC) guidelines, also known as the International Finance Corporation, which are considered relevant to the project and must be followed during the ESMP study, are as follows:

- IFC General EHS Guidelines dated 30 April 2007

4. Baseline Data

Solar Energy Power Plant Project (5.158 kWp, 4.500 kWe) is planned by Salihli Municipality within the borders of Manisa Province, Salihli District, Mersinli Neighbourhood, 35-38 lots of 185 block. The project area belongs to Salihli municipality. The land registry record is given in the attachment (See Annex-3).

With the project put into operation, approximately 84.27 % of the total electricity consumption of Salihli Municipality will be met. While determining this rate, the last year consumption data of Salihli Municipality (9.777 MWH) and the production of the SPP Project (8.240 MWH) were taken as basis.

The connection agreement given by GEDİZ EDAŞ within the scope of the planned project is attached (See Annex-9). In this direction, a network connection will be made via a transmission line to a distance of approximately 2.950 meters. Since the energy transmission line passes through cadastral roads, there is no privately owned land along the route.

It is anticipated that 25 personnel will work during the construction phase of the project and the solar energy installation process will be completed within 2 months.

According to the data of the Turkish Statistical Institute (TURKSTAT), the population of Salihli District in 2023 is 165,182 people. This population consists of 81,899 men and 83,283 women. Accordingly, 49.58% of the population of Salihli District is male and 50.42%

is female. The population of Mersinli Neighbourhood consists of 1,622 people. In this context, the population of Mersinli Neighbourhood corresponds to approximately 1% of the population of Salihli District.

5. Environmental and Social Management Plan

By Salihli Municipality, within the borders of Manisa Province, Salihi District, Mersinli Neighbourhood, 35-38 lot of 185 block "Solar Energy" Power Plant Project (5.158 kWp, 4.500 kW)" is planned. It is anticipated that 25 personnel will work during the construction phase of the project and the solar energy installation process will be completed within 2 months.

Within the scope of the project, domestic solid waste and wastewater will be generated from the personnel who will work during the construction phase, and during the operation phase, reflection and glare effects will occur due to photovoltaic panels.

In this regard, the possible environmental impacts that may occur within the scope of the project have been evaluated in detail below, the measures to be taken have been determined and monitoring plans have been prepared.

Water Use and Wastewater Generation

The water needs of 25 personnel who will work within the scope of the project will be met, and in parallel, wastewater will be generated due to the personnel. During the operation phase of the project, deionized water will be used to clean the panels, and the water falling on the ground will evaporate and will not cause wastewater formation. The cleaning of the panels will be done twice a year and during the cleaning process, precautions must be taken within the scope of the risks specified in the current Occupational Health and Safety legislation.

The drinking water needs of the personnel who will work during the construction and operation phases of the project will be met with demijohns purchased from companies licensed by the Ministry of Health in accordance with the provisions of the "Regulation on Water for Human Consumption".

Domestic water needs will be met from the network. The required domestic water will be brought to the project area by tankers within the Salihli Municipality. When taking water by tanker; the provisions of the Communiqué on Supply and Transport of Drinking and Utility Water by Tankers published in the Official Gazette dated 19.08.2014 and numbered 29093 of the Ministry of Health and the Regulation on Water Intended for Human Consumption published in the Official Gazette dated 17.02.2005 and numbered 25730 will be complied with. Additionally, deionized water required for cleaning the panels will also be purchased.

The places where water will be used, its quantities, supply locations, wastewater amounts and the disposal method of wastewater during both the construction and operation phases of the project are given in Table 1.

Table 1. Water Supply Plan to Be Used in Construction and Operation Phases

Project Period	Water use	The amount of water	Water Supply Place	Amount of Wastewater	Wastewater Disposal Method
Construction	Drinking and potable water for 15 people who will take part in the land preparation phase	25 people x 246 lt /person-day* = 6,15 m^3 /day	Drinking and utility water that will be needed during the land preparation and construction phase will be supplied by demijohns.	25 people x 151 lt /person-day* = 3,78 m^3/day**	A septic tank will be installed and removed by sewage trucks.
Operation	Cleaning of Photovoltaic Panels (Twice a year)	4 m^3/year deionized water (0,01 m^3/day)	Panel cleaning will be done twice a year with chemical-free water, except on rainy days. Domestic water will be provided by purchasing.	-	Since the water will remain on the concrete floor during the panel cleaning process, it will evaporate and wastewater will not be formed. Any remaining water on the panel will be wiped off with a dry cloth.
	Drinking and potable water for 2 people who will take part in the operation phase	2 people x 246 lt /person-day* = 0,49 m^3 /day		2 people x 151 lt /person-day* = 0,30 m^3/day**	A septic tank will be installed and removed by sewage trucks.

Note 1*: The amount of water a person will need is taken as 246 lt / person-day (Turkish Statistical Institute, Ankara, 2020).

Note 2:** The daily amount of wastewater generated by one person is taken as 151 lt / person (Turkish Statistical Institute, Ankara, 2020).

Within the scope of the project, Environment, Health and Safety Guidelines (Wastewater and Ambient Water Quality) published by the International Finance Corporation (IFC) will be followed. In this context, the criteria given in Table 2 will be complied with.

Table 2. Wastewater and Ambient Water Quality Criteria

Criteria
• Determining the quality, quantity, source and discharge point of liquid waste generated in the facility, • Inspecting the tightness of the septic tank, • Removing wastewater from the septic tank via a sewage truck at regular intervals, • Taking samples from the wastewater discharged to the sewerage infrastructure at certain periods and checking its compliance with the discharge limits, • Obtaining the appropriate opinion from the infrastructure administration for discharge to the sewer, • Meeting the pre-treatment and monitoring requirements of the sewage treatment system, • Minimizing wastewater generation to reduce the burden of pollutants requiring treatment, • Adopting and implementing water saving methods, • Separation of rainwater and wastewater channels, • Improving wastewater lines and preventing leaks.

Waste Management

Among the wastes that can be generated, recyclable (paper, plastic, glass, etc.) and non-recyclable wastes (food scraps, etc. organic waste) will be collected separately in garbage containers placed at various points of the project site. Wastes that can be recycled will be sent to licensed recycling companies; Domestic solid waste that cannot be recycled will be disposed of by sending it to licensed disposal facilities.

For the packaging waste generated in the facility, in accordance with the colors specified within the scope of the "Zero Waste Regulation" published in the Official Gazette No. 30829 dated 12.07.2019 (blue color for paper waste, yellow color for plastic waste, gray color for metal waste, green color for glass was and black for non-recyclable waste) waste bins will be provided, a Zero Waste Management System will be established and data of the waste collected for the previous month will be entered into the Integrated Environmental Information System (E-CBS) within the framework of the relevant regulation by the 15th of each month.

During the operations to be carried out within the scope of the planned project, domestic solid waste will be generated due to the personnel working. According to the data received from TURKSTAT, the daily amount of solid waste generated per person in Manisa in 2023 is 1.03 kg/day [(1)], accordingly, the amount of domestic solid waste that will arise from people who will work during the construction phase of the project is 25.75 kg/day (25 people x 1.03 kg/person-day) solid waste will be generated.

[(1)] Municipal Waste Statistics, Average Municipal Waste Amount per Person (kg/person-day), Turkish Statistical Institute, 2023.

Since the solid waste within the scope of the project will not be stored in the project area for a long time, it will not cause any problems such as odor or dispersion.

The solid wastes to be generated within the scope of the project will not cause any problems such as odor, appearance, or leakage since they will not be stored in the project area for a long time. All solid wastes to be generated within the scope of the project (food waste, packaging paper, plastic bottles, glass bottles, etc.) will be disposed of in accordance with the "Waste Management Regulation" published in the Official Gazette dated 02.04.2015 and numbered 29314 and entered into force, the "Packaging Waste Control Regulation" published in the Official Gazette dated 26.06.2021 and numbered 31523 and entered into force, and the "Zero Waste Regulation" published in the Official Gazette dated 12.07.2019 and numbered 30829 and entered into force. In addition, employees will be warned that it is prohibited to dump them into seas, lakes and similar receiving environments, streets and forests within the scope of Article 5 of the said Regulation.

Within the scope of the project, the Environment, Health and Safety Guidelines (Waste Management and Hazardous Material Management) published by the International Finance Corporation (IFC) will be followed. In this context, the criteria given in Table 3 will be complied with.

Table 3. Waste Management Criteria

Criteria
• Obtaining all necessary permits, certificates and approvals from the relevant official authorities, • Regular inspection of waste separation and collection practices, • Monitoring records regarding hazardous waste collected, stored or shipped, • Preventing waste generation, reducing it, reusing it, recovering it, recycling it, removing it and finally establishing a waste management hierarchy. • Preventing or minimizing waste generation as much as possible, • Recovering and reusing waste in cases where waste production cannot be prevented but minimized, • In cases where wastes cannot be recycled or reused, their processing, destruction and disposal in an environmentally compatible manner, • Identifying source reduction, reuse and recycling opportunities, • Establishing purchasing measures that allow for opportunities to return usable materials, such as containers, and prevent overordering of materials. • Minimizing hazardous waste generation by applying solid waste separation to prevent the mixing of non-hazardous and hazardous wastes to be managed, • Identifying potentially recyclable materials, • Determining recycling targets and monitoring waste production and recycling rates, • Providing training and incentives to employees to achieve goals, • Identifying potential impacts and risks associated with the management of hazardous waste generated throughout its entire life cycle,

Criteria
• waste in a way that prevents incompatible wastes from mixing or coming into contact with each other and allows monitoring of leaks or spills between containers, • Store indoors, away from direct sunlight, wind and rain. • Ensuring the reduction of waste at source.

Waste Panels

Materials such as panels, switches, solar regulators, inverters, etc. that are damaged and become inactive during or after the activity in question will be temporarily stored in the Hazardous Waste Storage Area in the existing facility, classified according to their characteristics and delivered to the closest or most economical licensed recycling company to the project area for recycling purposes, and wastes that cannot be recycled will be given to licensed companies to be disposed of according to the conditions specified in the "Waste Management Regulation", which was published in the Official Gazette dated 02.04.2015 and numbered 29314 and entered into force.

Waste Batteries

Waste batteries that may be removed from vehicles in the project area will be returned to the vendors and replaced with new batteries. Batteries used in the field will be reused by ensuring that they are rechargeable. Used batteries will be collected in battery collection boxes and left at collection points belonging to TAP (Portable Battery Manufacturers and Importers Association). The "Regulation on the Control of Waste Batteries and Accumulators" and its relevant provisions, which came into force after being published in the Official Gazette dated 31.08.2004 and numbered 25569, will be complied with.

Medical Waste

Medical waste is not expected to be generated in the project area as the nearest health institution will be visited in case of an accident. In case of occurrence, the relevant provisions of the "Medical Waste Control Regulation", which came into force after being published in the Official Gazette dated 25.01.2017 and numbered 29959, will be complied with. Medical waste that is likely to be generated as a result of the use of first aid materials available in the facility in case of emergency; tear, puncture, explosion and transportation resistant; It will be placed in leak-proof red plastic bags made of original medium density polyethylene raw material and bearing the phrase "CAUTION MEDICAL WASTE". The bags will be filled at most ¾ and their mouths will be tightly tied, and when deemed necessary, each bag will be placed in another bag with the same features to ensure absolute sealing.

Within the scope of the project, the Environment, Health and Safety Guidelines (Waste Management and Hazardous Material Management) published by the International Finance Corporation (IFC) will be followed. In this context, the Waste Management Criteria to be followed are given in Table 3 and the Hazardous Material Management criteria are given in Table 4.

Table 4. Hazardous Material Management Criteria

Criteria
• Determining hazardous material management priorities based on hazard analysis of risky operations determined through Social and Environmental Assessment, • Avoiding or minimizing the use of hazardous substances whenever possible, • Preventing the uncontrolled release of hazardous substances into the environment or uncontrolled reactions that may lead to fire or explosion, • Using engineering controls (limitation, automatic alarms and shutdown systems) appropriate to the nature of the hazard, • Implementation of management controls (procedures, audits, communications, training and exercises) to address remaining risks that cannot be prevented or controlled by engineering measures, • Recording the types and quantities of hazardous substances found in the project, • Analyzing potential spill and release scenarios using available industry statistics on spills and accidents whenever possible, • Analyzing the potential for uncontrolled reactions such as fire and explosion, • Identification of the locations of hazardous materials and related activities on the emergency plan field map, • A description of response activities in the event of a spill, release, or other chemical emergency. • Performing occupational safety analysis to identify specific potential occupational hazards and industrial hygiene studies, as appropriate, to monitor and verify exposure levels to chemicals and compare with applicable occupational exposure standards. • Conducting training, awareness-raising activities and exercises, • Identification and implementation of permitted maintenance activities such as hot work or confined space entries, • Providing appropriate personal protection equipment (PPE) (shoes, masks, protective clothing and goggles in appropriate areas), emergency eyewash and shower stations, ventilation systems and sanitary facilities, • Preparation of monitoring and recordkeeping documents that include audit procedures designed to verify and record the effectiveness of preventing and controlling exposure to occupational hazards and to maintain accident and incident investigation reports on file for a period of at least five years. • Using transfer equipment that is suitable and compatible with the characteristics of the transferred materials and designing them to ensure safe transfer.

Excavation Waste

Within the scope of the project, excavation works will be carried out during the land preparation and construction phase, the opening of the energy transmission line, the arrangement of the land, the installation of machinery and equipment will be carried out, and a limited amount of excavation waste will be generated in this area. Excavation waste will be used as filling material.

In order to place the machinery and equipment to be installed within the scope of the project, excavation will be carried out at a depth of 0.05 m in an area of approximately 49,140 m^2.

According to this;

49,140 m^2 * 0.05 m = 2,457 m^3 excavation will occur.

The works will be carried out in accordance with the provisions of the "Regulation on the Control of Excavation Soil, Construction and Demolition Wastes", which came into force after being published in the Official Gazette dated 18.03.2004 and numbered 25406. In the studies to be carried out, the provisions of the "Regulation on the Control of Soil Pollution and Point Source Contaminated Sites", which came into force after being published in the Official Gazette dated 08.06.2010 and numbered 27605, will also be taken into consideration.

In addition, the "Zero Waste Regulation", which came into force after being published in the Official Gazette dated 12.07.2019 and numbered 30829, will be complied with at all stages of the planned project.

Dust Emission

Within the scope of the project, excavation will be carried out during the placement of units during the land preparation and construction phase, and dust emissions will occur due to the dismantling and temporary storage of the material. The particulate matter that will be formed will add additional burden to the existing air quality and may adversely affect human health or cause harmful deposits on the vegetation.

Calculations for dust emissions that may occur during land preparation and construction works are stated in Table 12.6 of the "Regulation on Control of Industrial Air Pollution", which came into force after being published in the Official Gazette No. 27277 dated 03.07.2009. It was calculated using "Emission Factors to be Used in Dust Emission Mass Flow Calculations" and is given in the attachment (See Annex-7).

It is not thought that the dust emissions that will occur during the 3-weeks land preparation and construction phase of the Solar Energy Project will negatively affect the air quality. The dust emission concentration resulting from the activities carried out in this direction is evaluated in accordance with both the Industrial Air Pollution Control Regulation and the Air Quality Assessment and Management Regulation (Table 5).

Additionally, dust emissions will remain below the limit values in the Environment, Health and Safety Guidelines (Air Emissions and Ambient Air Quality) published by the International Finance Corporation (IFC).

Table 5. PM10 Pollutant Limit Values

Regulation	Average Time	Limits	Annual Decrease of Limit Value	Warning Threshold
Air Quality Assessment and Management Regulation	**KVS** (24 hour) 95%/year To protect human health	**300 µg/m³**	**100 µg/m³** starting from 1.1.2009 until 1.1.2014 It decreases annually by an equal amount every 12 months until (33% of the limit value).	First level: 260 µg/m³ Second level: 400 µg/m³ Third level: 520 µg/m³ Fourth level: 650 µg/m³ (The values given are 24-hour averages.)
	Winter Season Avg. (October 1 – March 31) To protect human health	**200 µg/m³**	The limit value is **90 µg/m³** starting from 1.1.2009 until 1.1.2014 It decreases annually by an equal amount every 12 months until it reaches (45% of the limit value).	
	UVS (Annual) To protect human health	**150 µg/m³**	Starting from 1.1.2009, the limit value decreases annually by an equal amount every 12 months until it reaches **60 µg/m³** (40% of the limit value) until 1.1.2014)	
Industrial Air Pollution Control Regulation	**24 Hours** (Cannot exceed more than 35 times in a year)	**50 µg/m³**	-	-
	Yearly	**40 µg/m³**	-	-
IFC Environmental, Health and Safety (EHS) Guidelines: Air Emissions and Ambient Air Quality	**24 Hours**	**-**		Temporary Target-1: **150 µg/m³** Temporary Target-2: **100 µg/m³** Temporary Target-3: **75 µg/m³** Directive: **50 µg/m³**
	1 Year	**-**		Temporary Target-1: **70 µg/m³** Temporary Target-2: **50 µg/m³** Temporary Target-3: **30 µg/m³** Directive: **20 µg/m³**

Within the scope of the activity, the issues specified in the "Regulation on Control of Industrial Air Pollution", "Air Quality Assessment and Management Regulation" and the

Air Emissions and Ambient Air Quality Guide published by the International Finance Corporation will be complied with.

Exhaust Gas Emission

Within the scope of the project, ego gas emissions will occur due to the vehicles used during the transportation of photovoltaic panels, materials and equipment to the project area, and will have a slight impact on the existing air quality. In this regard, the provisions of the "Exhaust Gas Emission Control Regulation" will be complied with in order to minimize the exhaust gas emissions arising from the vehicles to be used within the scope of the project. Maintained and repaired vehicles will be used.

Noise

During the construction phase of the project, the noise level will vary throughout the day. However, since the work will be carried out during daylight hours, noise generation will be limited.

It is thought that after the installation of the power plant, the noise level that the equipment will emit to the environment during operation, especially the inverter panel and substation equipment, will be below 25 dB and therefore it will not pose any problem as the noise will completely disappear at a distance of 60-80 m. Considering that the nearest residential area is 2.3 km away and the noise during the construction phase will end within 2 months, it will not pose any problem. In addition, the determined values are below the limit values given in national and international legislation. A grievance mechanism will be implemented regarding these issues. Noise calculation is given in the attachment (See Annex-8).

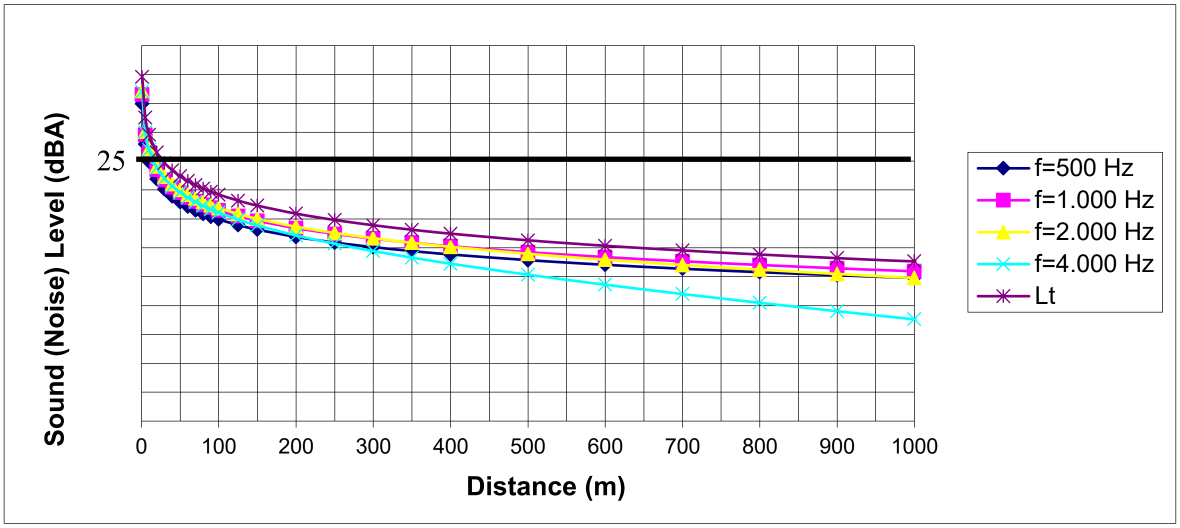

Figure 4. Noise Distribution Graph by Distance

Table 6. Environmental Noise Level Border Values

Noise Source	Measured Parameter	Environmental Noise Level		
		Daytime	Evening	Night
Industrial facilities, transportation resources	$LA_{eq\,,\,5\,min.}$	**65dB(A)**	60dB(A)	55dB(A)
Businesses that broadcast music	$LA_{eq\,,\,63\text{-}250\,Hz.}$	60dB(A)	55dB(A)	50dB(A)
Workplaces	$LA_{eq\,,\,5\,min.}$	Background + 5 dB (A)		Background + 3 dB (A)
If there is more than one workplace	$LA_{eq\,,\,5\,min.}$	Background + 7 dB (A)		Background + 5 dB (A)
All sources	LCmax _	100dB(C)		

Table 7. IFC Noise Management – Limit Values

Noise Source	Environmental Noise Level	
	daytime 07:00 – 22:00	night time 22:00 – 07:00
Residential, Corporate	**55dB(A)**	45dB(A)
Educational Place, Industrial, Commercial	70dB(A)	55dB(A)

The environmental noise that will occur during the land preparation and construction phases of the project remain below the limit values given in both the Environmental Noise Control Regulation and the Environment, Health and Safety Guides (Noise Management) published by the International Finance Corporation.

In the calculation, it is assumed that all vehicles and equipment operate simultaneously, there are no obstacles between noise sources and receivers, and noise sources operate uninterruptedly. There will actually be less noise.

In order to keep the noise level to a minimum, care will be taken to operate a minimum number of well-maintained vehicles and equipment at the same time. During construction work, not all vehicles will operate at the same time. The tools will operate in a specific order. In addition, the fact that the works will be carried out at certain times of the day (07.^{00} am – 07.^{00} pm) may limit noise generation to some extent.

Annex-2 (Measurement *and Monitoring of Environmental Noise Level) of the* "Environmental Noise Control Regulation" in the Official Gazette dated 30.10.2022 and numbered 32029; Table 7. Environmental Noise Level Limit Values will be followed.

In order to protect people within the scope of the project from risks involving health and safety information as a result of exposure to noise, the "Regulation on the Protection of Employees from Risks Related to their Departments" will be complied with.

In addition, the provisions of the "Regulation on Occupational Health and Safety in Construction Works" and the "Regulation on the Use of Personal Protective Equipment in Workplaces" will be followed.

For the noise levels of the equipment to be used, the provisions of the "Regulation on Noise Emission in the Environment Created by Equipment Used in Open Areas" will be complied with.

In addition, within the scope of the Project, action will be taken in accordance with the Environment, Health and Safety Guides (Noise Management) published by the International Finance Corporation.

Glare and Reflection Effect

Another effect of solar power plants is the reflection and glare effect that occurs as a result of the image or light created by direct sunlight or a bright sky on the panels. Although the severity of reflection and glare effects varies depending on the time of year and the geographical location of the power plant, the importance of the effect depends on variables such as potential receptor points (settlements in the impact area, transportation routes, airports, etc.). Since photovoltaic panels absorb sunlight, the glare and glare effects in PV type systems are lower than in systems using other solar energy technologies.

Photovoltaic panels are designed to maximize absorption and minimize reflection to increase electricity generation efficiency. To limit reflection, photovoltaic panels are made of dark, light-absorbing materials and coated with an anti-reflective coating. Today's panels reflect an average of 2% of incoming sunlight.

According to the U.S. Federal Aviation Administration (FAA), current solar panels reflect slightly more light than black asphalt, on par with bodies of water and well below bare soil, vegetation, roofs, glass, snow or metal.[2]

[2]https://www.savemoneycutcarbon.com/

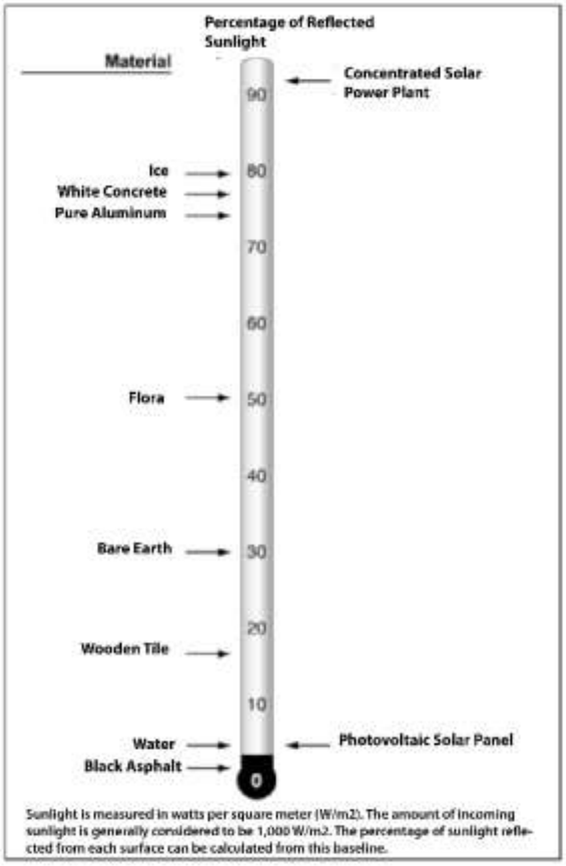

Figure 5. Sunlight Reflectance Percentages of Various Materials

Source:https://www.savemoneycutcarbon.com/learn-save/do-i-need-to-worry-about-glare-from-solar-panels/

Against possible reflection and glare effects, points where there is a risk of reflection will be determined and in the first year of operation, vegetal or artificial curtains will be applied at the necessary points according to visual monitoring and grievances from nearby settlements.

Evaluation According to Bird Migration Routes

Türkiye constitutes the southeastern borders of the wide geography defined as the Western Palearctic region. Every year, in spring and autumn, during periods defined as migration periods, very regular and large-scale bird migrations occur between the Western Palearctic Region and the central, eastern and southern parts of the African continent.

While one of these routes passes over the Bosphorus, the other one enters our country from the Caucasus, passes through Northeastern Anatolia, and leaves our country from the south, like the first route. In spring and autumn, these movements are exhibited in opposite directions. Türkiye is located on the most important bird migration routes between Europe and Africa, and due to its location, the areas on the migration routes are of great importance. The project area is located on the bird migration routes of Turkiye. In this context, action will be taken in line with the opinion of the General Directorate of Nature Conservation and National Parks of the Ministry of Agriculture and Forestry of the Republic of Türkiye.

The mentioned opinion letter was received from the relevant institution on 02.03.2022. The institution's opinion is given below.

"The opinion of the institution is requested for the 1/5000 scale Zoning Plan (SPP) and 1/1000 scale Implementation Zoning Plan (SPP) studies for the establishment of an unlicensed Solar Power Plant (SPP) on the immovable properties with an area of 36,051.22 m² on the island 185, parcel 11, 25,794.81 m² on the island 185, parcel 12, 6,143.02 m² (The parcel of the project has been changed to parcels 35-36-37-38. Parcels 35-38 are used for the project) located in the Mersinli Neighborhood, Salihli District, Manisa Province, by the 4th Regional Directorate of the Ministry of Agriculture and Forestry, dated 02.03.2022 and numbered 4709896. As a result of the examination, it was stated that the areas in question were not under protection scope such as the National Parks Law, the Land Hunting Law and were not declared wetlands, therefore the institution did not see any harm in making a "Zoning Plan Change"."

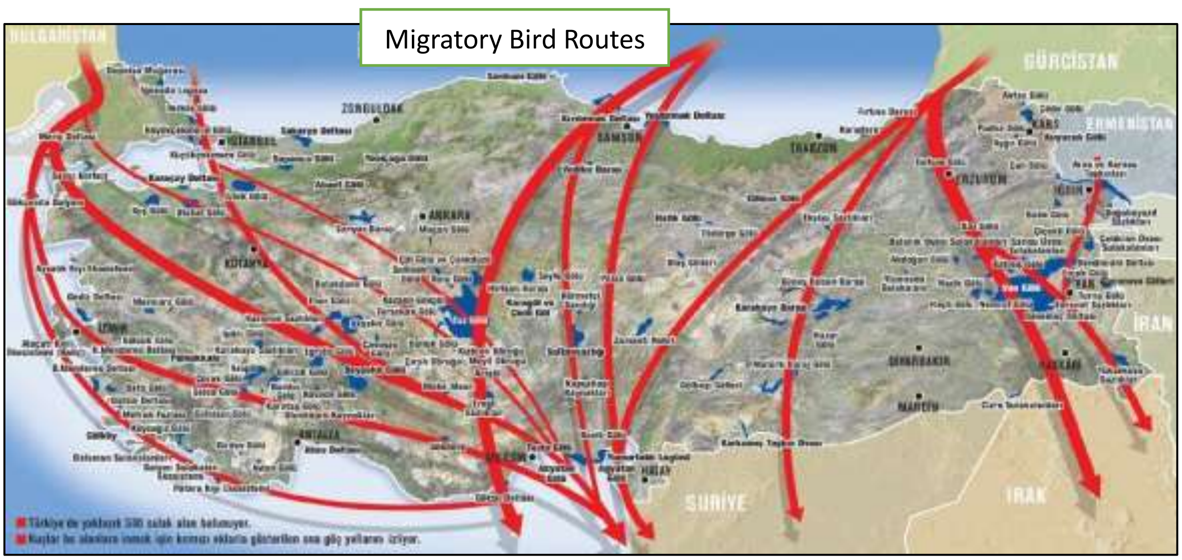

Figure 6. Migratory Bird Migration Routes Map

Biodiversity

There is no distribution of natural flora and fauna in the area where the Project is located. As a result of the intense anthropogenic impact in the Project area, the distribution of natural habitats and flora and fauna has been greatly suppressed. The flora and fauna species that can be seen in the area consist of cosmopolitan species especially adapted to the settlement conditions. In terms of flora species, there is a distribution of culture species in particular. The fauna distributed in the project area consists of species that show high tolerance to the effects of residential areas such as intense human presence, noise and traffic.

Population/Demographics

Salihli Municipality has a population of 165,182. 30% of the population is young, 49% is middle-aged, and 21% is elderly. 1,587 people live in Mersinli Neighborhood, where the project area is located. While 51% of the population is female and 49% is male, educational status is as follows; 86% have undergraduate and postgraduate degrees, 12% have primary and secondary education, and 4% have no education.

There is no negative impact on the population level expected from the project in the residential areas that are expected to be generally affected within the scope of the planned project.

Subcontractors are obliged to provide professional ethics training to each worker in order to ensure that the workers who will work during the construction do not have any negative impact on the social order. Salihli Municipality will ensure that contractors establish a code of conduct and ensure that workers regarding communication with citizens receive training before starting work.

Economy/Employment

Mersinli neigborhood living in the most important source of income for the total population is agriculture and animal husbandry.

It is anticipated that temporary employment will be created for construction works during the renovation and capacity expansion works to be carried out in the project. During construction, priority will be given to contributing to the local economy by using local materials and paying attention to providing various goods and services locally.

Additionally, no camping area will be established for workers during the construction period. Within the scope of the project, it is planned to meet the personnel needs as much as possible from local people.

Natural Habitats

In our country, ecologically protected areas under the legal legislation under the responsibility of the Republic of Türkiye Ministry of Agriculture and Forestry, General Directorate of Nature Conservation and National Parks; National Parks, Nature Conservation Areas, Wildlife Development Areas, Wild Animal Settlement Areas, Natural Parks, Natural Monuments, Ramsar Areas and Wetlands.

In our country, areas that are ecologically protected by the legal legislation under the responsibility of the Ministry of Environment, Urbanization and Climate Change of the Republic of Türkiye; they are Special Environmental Protection Areas.

When the project area is evaluated according to the ecologically protected areas under the legal legislation under the responsibility of both the Ministry of Agriculture and Forestry, General Directorate of Nature Conservation and National Parks and the Ministry of Environment, Urbanization and Climate Change of the Republic of Türkiye, National Parks, Nature Conservation Areas, does not fall within Wildlife Development Areas, Wild Animal Settlement Areas, Natural Parks, Natural Monuments, Ramsar Areas, Wetlands and Special Environmental Protection Areas.

Historical and Cultural Areas

The project area does not fall within the borders of any Tourism Center or Culture and Tourism Protection and Development Zone declared in accordance with the Tourism Incentive Law No. 2634.

If movable or immovable cultural assets are encountered during any work or operation to be carried out within the scope of the project, the nearest Museum Directorate will be informed in accordance with Article 4 of the Law Number 2863 on the Protection of Cultural and Natural Assets.

In addition, within the scope of the project, the provisions of the World Bank Physical Cultural Resources (OP 4.11) chance finds procedure will be followed.

The information that no cultural findings were found as a result of the examinations conducted by the Ministry of Culture and Tourism was received verbally from Salihli Municipality.

The closest settlement to the project site is Sardes Ancient City and Bintepeler Lydian Tumulus, which are 28 km away(see figure 7).

Figure 7. The closest cultural heritage

Agriculture and Forestry Areas

The project area consists of an area of approximately 49 hectares with the qualification of “field” within the boundaries of lot 35-38 of block 185, in the Salihli district of Manisa province.

The project subject area of activity is not within the scope of areas with the qualification of “Forest Area”. Within the scope of the project, the provisions of the World Bank Natural Habitats (OP 4.04) will be followed.

Land Acquisition / Use

Solar Energy Power Plant Project (5.158 kWp, 4.500 kWe) is planned by Salihli Municipality within the borders of Manisa Province, Salihli District, Mersinli Neighbourhood, 35 and 38 lots of 185 block. The project area belongs to Salihli Municipality. The land registry record is given in the attachment (See Annex-3).

The connection agreement given by GEDİZ EDAŞ within the scope of the planned project is attached (See Annex-9). In this direction, a network connection will be made via a transmission line to a distance of approximately 2,950 meters. The energy transmission line is an underground line.Since the energy transmission line passes through cadastral roads, there is no privately owned land along the route.There is no private land along the energy transmission line route.

Transportation to the project site is provided via the D300 highway passing in front of the settlement.Existing access roads will be used for project activities and no additional land will be used for accessibility. If additional access roads will be required in the future, an environmental and social impact assessment will be conducted for the proposed route.

The matters specified in the ESMP will be complied with by Salihli Municipality and subcontractors in order to create temporary security measures in order to avoid any inconvenience to the citizens during the construction works to be carried out around the project area.

Working conditions

It is planned to employ 25 personnel during the construction and machinery-equipment installation activities of the solar power plant and 2 personnel during the operation phase.

No campsite will be established for workers during the construction period. It is planned that the personnel needed for the project will be met from local people as much as possible. In case of need for accommodation, it is planned to provide accommodation in the nearest settlement.

Salihli Municipality will be responsible for human resources for the construction and operation periods. Türkiye is currently in the middle of its harmonization process with the European Union and its labor laws are being reviewed to ensure compliance. The project will comply with national labor, social security and occupational health and safety laws, World Bank Environment, Health and Safety Guidelines and International Labor Organization convention principles and standards.

In addition, the subcontractor will provide training to its personnel during the execution of the works about the environmental and social impacts that should be taken into consideration during field works and included in the ESMP document. The subcontractor will inform its personnel about taking all precautions to prevent and/or minimize environmental and social impacts during field manufacturing. In addition, all these processes will be controlled by Salihli Municipality.

Community Health and Safety

Community health and safety problems are related to pollution factors that may arise from the construction and operation period of the project. During the construction phase, During the transportation of the panels within the scope of the project, there will be temporary effects that will directly reflect on the public, such as increasing the traffic load, creating dust emissions, and noise emissions from working machinery and equipment. During the operation phase, improperly managed waste disposal and recycling plan of expired panels will pose a risk. The closest settlement to the project site, Mersinli neighborhood, is 2.3 km away. Therefore it is anticipated that local people may be not affected by the dust and noise that will occur, during the three-weeks land preparation and construction period.

Transportation to the project site is provided via the D300 highway passing in front of the residential Mersinli District. Therefore in order to minimize the impact of traffic activities expected to intensify during the construction phase on the local community, working hours should be adjusted according to the peak transportation hours.

In addition, during site preparation and construction activities, the Subcontractor, under the management of the Salihli Municipality, will ensure that subcontractors take health and safety measures, such as informing the public about the construction plan and locations in a timely manner.

Accidents that may threaten public health and safety may occur as a result of not fully surrounding the construction sites and not placing the necessary warning signs. In this regard, appropriate warning signs and signals will be used to identify construction sites and irrigation will be provided during dry seasons.

Existing road D300 highway will be used within the scope of transportation of the panels. Possible damage to road surfaces due to traffic caused by heavy machinery will be repaired by the Subcontractor. In case of any damage to infrastructure elements on private lands due to construction activities, mitigation measures will be implemented by the subcontractor.

The project area will be fenced to prevent physical dangers to the communities associated with the project, and the local people, workplaces and government institutions that will be affected by the construction activities will be announced at least 2 days in advance.

Within the scope of the project, the provisions of the Environment, Health and Safety Guidelines (Community Health and Safety) will be complied with.

Occupational Health and Safety

It is planned to employ a total of 25 personnel during the construction process of the project, depending on the workload. No campsite will be established for workers during the construction period. It is planned that the personnel needed for the project will be met from local people as much as possible. In case of need for accommodation, it is planned to provide accommodation in the nearest settlement. The construction phase of the project includes excavation, filling and heavy vehicle use. Vehicle movements can cause accidents resulting in injury and death. Occupational Health and Safety (OHS) risks may arise due to the risk of pollution, dust emissions and noise generation during site preparation and construction works. In particular, construction works may cause accidents that will threaten the health and safety of employees if necessary precautions are not taken. In this context, the Project Owner and Subcontractor are obliged to provide a safe and healthy working environment for employees. During the construction period, workers are exposed to noise, dust, heat, chemicals (In the event of a possible accident, the heavy metals (lead and cadmium) contained in the panels pose a risk to the ecosystem and human health.) etc. may be exposed to various dangers. If potential risks at various stages of the Project are not managed appropriately, occupational accidents and injuries may occur. Potential accidents that may occur during the operation phases of the projects may cause potential health problems due to non-routine risks. When an accident occurs, Salihli Municipality is obliged to report the accident to İlbank within 24 hours.

It will be ensured that employees are informed about their job descriptions, responsibilities and risks that may threaten health and safety related to the work performed. Employees will be provided with the necessary personal protective equipment and will be provided with information about work and occupational safety through regular training.

Salihli Municipality will take reasonable precautions to prevent occupational accidents, injuries and illnesses on site, including measures to reduce and prevent the risk of injury or illness, as well as the risk of exposure to harmful levels of environmental factors and chemicals.

Salihli Municipality will require all employees and contractors to comply with local and international health and safety legislation and guidelines. This will include the use of appropriate personal protective equipment (PPE), hearing protection and the implementation and adherence to a management system for activities associated with health and safety risks.

The risk of accidents that may arise from the technology and materials to be used within the scope of the project will be low if occupational health and safety legislation is strictly followed.

Within the scope of the project, the Occupational Health and Safety Regulation in Construction Works, Labor Law, Occupational Health and Safety Law and relevant regulations will be complied with.

In order to prevent all possible risks to human health at all stages of the project, all health and safety rules specified in the Labor Law, Occupational Safety Law and relevant regulations regarding occupational health and safety will be followed.

Work accidents, fire, etc. that may occur in the project area to respond to emergencies; Fire extinguishing tools and equipment (fire extinguishers, buckets, shovels, etc.), first aid materials, etc. within the project site in accordance with current regulations and laws. Will be kept and placed in suitable places where everyone can easily reach them.

The equipment in question will be shaped according to the risk assessment study to be carried out within the scope of the project.

In this study, the concepts of "accept, share the risk, reduce the impact and frequency, avoid" are emphasized and the steps to be taken to manage the risks are given below.

Preparation of Risk Assessment Guide

Within the scope of the "Occupational Health and Safety Risk Assessment Regulation" dated 29 December 2012 and numbered 28512, a Risk Assessment Guide will be created to meet the requirements of the legal legislation for specific risks within the scope of the project.

Risk Assessment Guides include determining the dangers that may arise in advance and taking the necessary precautions. In order to protect the safety of workplaces and the health of employees in our country, a Risk Assessment Guide must be available.

In this regard, a Risk Assessment Guide will be prepared by the Occupational Health and Safety expert appointed within the scope of the project, in which hazards in both the construction and operation phases are defined, risks are determined, risk control measures are decided and monitoring work is included before the start of the activity.

Control List

The Checklist, prepared by the Occupational Health and Safety Specialist before starting the operation for the convenience of the user, includes the stages of preliminary analysis, project planning and design, tests and commissioning, and finally the operation of the power plant. In the stages examined, technical reasons are predominant and although it is not directly related to Occupational Health and Safety, it has an indirect effect. Risks where no precautions are taken against technical hazards during power plant installation will turn into Occupational Health and Safety risks in the following stages. Technical risks are included in the Checklist. In this regard, a Check List containing the risks and precautions that may occur in both construction and operation within the scope of the project will be prepared, and the personnel assigned for this job will periodically check whether the actions in the list are implemented.

Risk Assessment Table

The Risk Table, which is detailed in terms of Occupational Health and Safety, is more comprehensive than the Check List. In preparing the Risk Table, the risk value is determined by giving numerical values of the risks that may occur in the work area in advance. The Risk

Table to be prepared will include 3 stages for Solar Power Plants. These are installation, tests and commissioning, and finally operation and maintenance of the power plant. In the content of the Risk Table, unlike the Checklist, technical risks in terms of Occupational Health and Safety will be examined. When using When using the Risk Table, risks and dangers that may arise from risks are first determined. As a result of these, impact/harm consequences are defined. In order to determine the risk as a value, probability and severity values are determined and the risk value is created as a result of multiplying them. If the risk value is below the threshold value, it means that the risk is at an acceptable level and the measures are sufficient; if it is not below the threshold value, it means that the risk is not at an acceptable level and the measures taken are insufficient. In this case, the measures taken need to be increased. In this regard, a Risk Assessment Table will be prepared by an Occupational Health and Safety expert in which the impact of existing risks that may occur in both construction and operation will be determined.

Application of Risk Assessment Table

The Risk Assessment Table, which determines the impact of existing and possible risks in both construction and operation, prepared by an OHS expert before starting the activity, must be used both during the opening of the electricity transmission line and the installation of Solar Power Plants. Thanks to preliminary studies, possible risks are identified and precautions are taken. It is decided whether the measures are sufficient or not by taking into account the threshold value. If the risk value of a hazard is above the threshold value, it is seen that the measures taken are not sufficient. This may not always be the case. Although adequate precautions have been taken thanks to preliminary studies, the risk value may be above the threshold value. In this context, measures determined in line with the risk control hierarchy will be implemented in order to eliminate risks and create a safe working environment within the control of the OHS specialist.

Within the scope of the project, an Emergency Preparedness and Response Plan will be prepared by the project owner to protect occupational safety and worker health.

Within the scope of the project, action will be taken in accordance with the Environment, Health and Safety Guidelines (Occupational Health and Safety) published by the International Finance Corporation (IFC).

Institutional Arrangements

In order to ensure that the project in question is carried out in a way that minimizes its potential impacts, resources must be allocated to the management of environmental and social issues. In this direction, first of all, the current structure of Salihli Municipality was evaluated and the institutional infrastructure needed to provide the specified services was tried to be revealed.

Current Administrative (Institutional Structure)

The organizational chart of Salihli Municipality is given below.

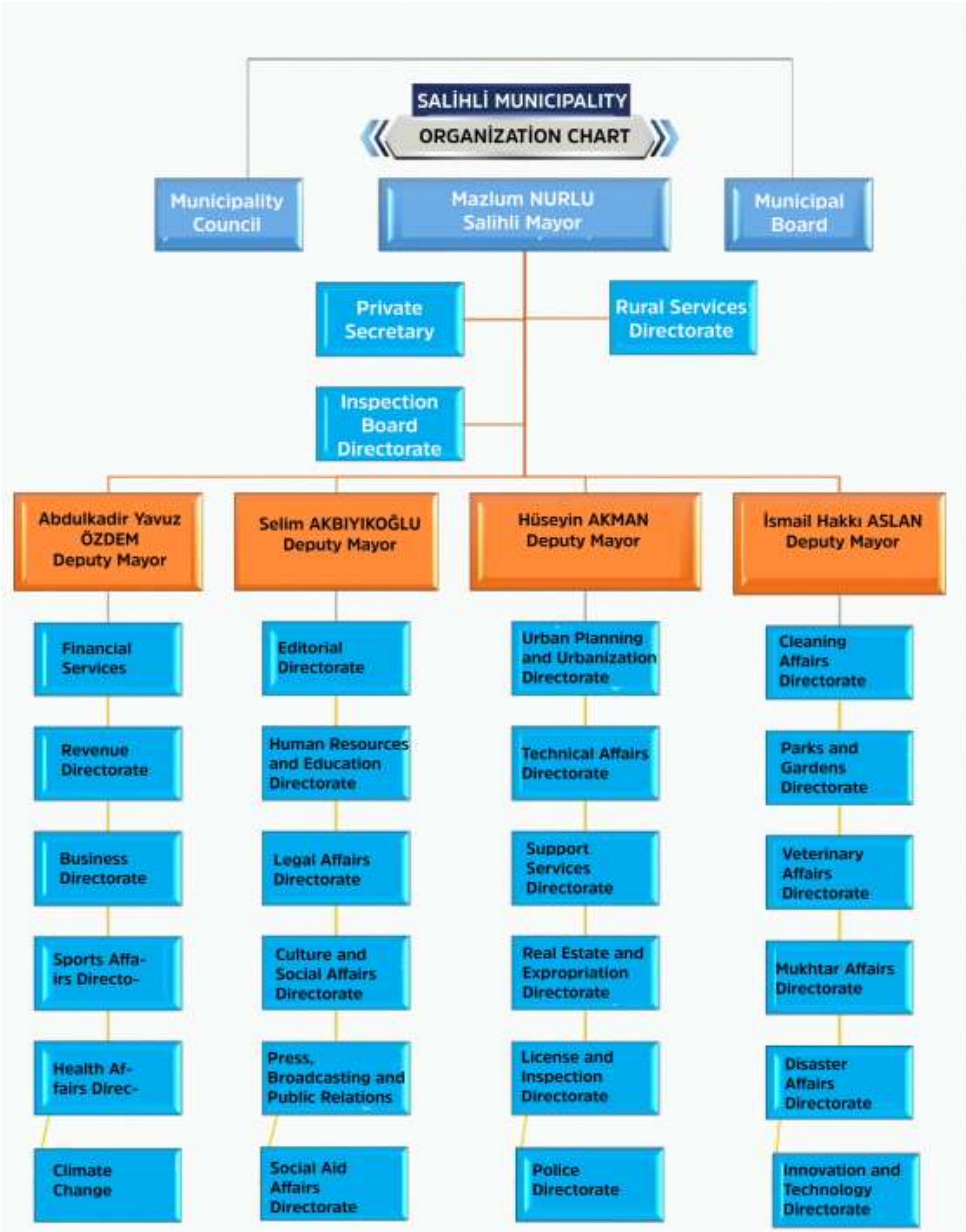

Figure 8. Salihli Municipality Organization Scheme

Duties and Responsibilities

It is the responsibility of Salihli Municipality to manage the issues specified in the ESMP prepared for the healthy execution of the project and to ensure that the necessary mechanisms are developed and implemented by the Contractor.

The studies to be carried out within the scope of this ESMP and the parties responsible for these studies are given below.

Table 8. Duties and Responsibilities

Organisation	Duties and Responsibilities
World Bank	• Checking whether the loan obtained from the bank is used within the scope of the relevant business, • Verifying compliance with tender, contract documents and procedures • Monitoring the transactions to be carried out at certain periods, • Conducting site visits with a designated team at certain periods.
ILBANK	• Providing guidance on compliance of project documents prepared by Salihli Municipality with World Bank requirements. • Providing guidance to Salihli Municipality public participation and announcement requirements, • To provide guidance to Salihli Municipality officials and consultants on World Bank requirements for protection measures (documents and procedures) regarding cultural assets, land acquisition and involuntary resettlement, natural habitats, forests and international waterways, • Reviewing documents related to the environmental and social assessment of the project, providing comments to consultants and granting official approval to these documents and procedures in accordance with World Bank safeguarding requirements, • Monitoring studies such as the implementation of ESMP and other environmental and social impact mitigation measures, • Monitoring and auditing Salihli Municipality's ESMP practices and providing feedback on its performance, suggestions and steps to be taken within the scope of general project supervision, • Obtaining the opinions of relevant groups and local environmental/social experts about the environmental and social dimensions of the project implementation and holding meetings with these groups when necessary during field visits, • Ensuring coordination and communication regarding field visits to be carried out within the scope of World Bank inspection missions regarding environmental and social protection measures related to project implementation.
Salihli Municipality	• Execution of tenders in accordance with the Public Procurement Agency legislation and the legal requirements of the World

	Bank, monitoring the Construction Contract and working in cooperation with ILBANK on construction supervision, • Implementation of ESMP and related management plans and fulfillment of all commitments within the scope of ESMP, • Sharing the ESMP with the Contractor, guiding the Contractor in the preparation of sub-management plans, and approving these plans, • Updating the ESMP when necessary and sharing additional commitments with the Contractor, • Environmental review, monitoring and inspections regarding ESMP applications, evaluation of results, • Auditing contractor activities in line with ESMP requirements, • Providing EHS training to all Project personnel, • Ensuring compliance with project standards, taking urgent action in case of non-compliance, • To stop work in any situation that threatens the environment, society and occupational health and safety, • To ensure the tracking and analysis of environmental (including OHS) and social accidents/incidents, • Ensuring stakeholder participation, implementation of the grievance redressal mechanism, ensuring continuous information transfer through open communication, • To report unexpected situations such as environmental, social and labor problems or accidents, incidents or loss of time to ILBANK and the World Bank within three business days, • Coordinating actions and evaluations in case of changes in legislation regarding environmental and social issues, changes in permit provisions, new environmental/social data, construction/operation strategy changes.
The Contractor	• Fulfilling all requirements of ESMP and management plans, • Implementation of additional commitments determined by Salihli Municipality, • Ensuring compliance with project standards and obtaining all relevant permits and licenses, • Monitoring construction activities (including subcontractor activities) and taking measures within the scope of ESMP, • Developing sub-management and monitoring plans/procedures in accordance with the ESMP structure and implementing them after the approval of Salihli Municipality, • Employing competent Environmental, Social and OHS Experts (at least one Social Expert, one Environmental Expert and one OHS Expert) within the scope of the project, • Providing necessary training on environmental and social issues to contractor and subcontractor personnel, • Ensuring follow-up and analysis of environmental and social accidents, • Reporting environmental audits, monitoring and inspections regarding ESMP practices to Salihli Municipality, • Immediate notification of unexpected situations such as environmental, social and business problems or accidents,

	incidents or loss of time to the Salihli Municipality and keeping an event log on site throughout the life of the Project, • The incident report containing root cause analysis and corrective actions to be taken will be submitted to ILBANK and the World Bank within 30 days.

Salihli Municipality will include environmental, social and OSH experts to oversee the implementation of the ESMP. Salihli Municipality experts will monitor the implementation of the ESMP by Salihli Municipality and document performance, recommendations and other necessary actions. Provides guidance to municipal officials on World Bank procedures, consultation and disclosure requirements.

Training

Project Owner Salihli Municipality will conduct a training and awareness program covering ESMP expectations and commitments. The Supervision Consultant will organize a workshop for this training with the Salihli Municipality. As a minimum requirement, this program will be implemented as training for employees and contractors responsible for the implementation of the ESMP. Salihli Municipality will provide training to employees and subcontractors before the construction phase begins.

Employess will receive the necessary training before the recruitment process. Compliance with the rules of conduct, including gender-based violence, sexual harassment, sexual exploitation and abuse, included in the training to be provided, will be included in the contract clauses of the staff. The sanctions to be applied in case of non-compliance with the rules of conduct will be clearly stated in the contract.

Measurement and evaluation should be made at the end of the training given to the personnel. This aims to increase the competence of staff. According to the results of the review, it is determined whether the training is effective or not, and if necessary, changes can be made to the training program, instructors can be changed or the training can be repeated.

Salihli Municipality will ensure that all personnel responsible for the implementation of this ESMP are competent in terms of education, training and experience. All personnel will be provided with environmental and social training appropriate to their fields of activity and level of responsibility.

Trainings will be repeated at regular intervals, taking into account the changing and emerging new risks specified in the Regulation on the Procedures and Principles of Occupational Health and Safety Training of Employees. Informing and training activities will be carried out not only for employees but also about the measures to be taken for public health and safety. Within the scope of the project, action will be taken in accordance with the Environment, Health and Safety Guides (Occupational Health and Safety) published by the International Finance Corporation (IFC).

Table 9. Land Preparation and Construction Phase Precautions Plan

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
WASTE WATER	**Land Preparation and Construction Phase;** Domestic wastewater will be generated due to the personnel to work.	When they are not treated or disposed of appropriately, they cause underground and surface water pollution and soil pollution, and can negatively affect human and environmental health**.**	Indirect	Moderate	Within the scope of the planned project, the water need of 25 personnel who will work in the construction and land preparation phase is **6,15 m³/day**, and the amount of wastewater it will create is **3,78 m³/ day**. A septic tank will be installed for the sink needs of the people who will work in the planned project and will be drawn by a sewage truck at certain periods.	Salihli Municipality The contractor

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
SOLID WASTE- HAZARDOUS WASTE- MEDICAL WASTE- PACKAGING WASTE	**Land Preparation and Construction Phase** Municipal waste caused by personnel working in the project area Packaging waste from personnel In addition, there are hazardous waste, waste batteries and accumulators. It is possible for panels to become damaged/idle.	When not disposed of, it causes contamination of underground and surface water resources, soil pollution and odor problems for human health.	Indirect	Moderate	Municipal waste will be generated due to a total of 25 personnel who will work during the land preparation and construction phases of the project. Among the wastes that can be generated, recyclable (paper, plastic, glass, etc.) and non-recyclable wastes (food scraps, etc. organic waste) will be collected separately in garbage containers placed at various points of the project site. Wastes that can be recycled will be sent to licensed recycling companies; Domestic solid waste that cannot be recycled will be disposed of by giving it to the relevant Municipality. For the packaging waste generated in the facility, in accordance with the colors specified within the scope of the "Zero Waste Regulation" published in the Official Gazette No. 30829 dated 12.07.2019 (blue color for paper waste, yellow color for plastic waste, gray color for metal waste, green color for glass waste). and black for non-recyclable waste) waste bins will be provided, a Zero Waste Management	Salihli Municipality The contractor

					System will be established and data of the waste collected for the previous month will be entered into the Integrated Environmental Information System (e- çbs) within the framework of the relevant regulation by the 15th of each month. Since the solid waste that will be generated within the scope of the project will not be stored in the project area for a long time, it will not cause any problems such as odor, appearance or leakage. All solid wastes (food scraps, packaging paper, pet bottles, glass bottles, etc.) to be generated within the scope of the project are subject to the "Waste Management Regulation", "Packaging Waste Control Regulation", "Zero Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314. It will be disposed of in accordance with the "Waste Regulation".	

		When not disposed of, it causes contamination of underground and surface water resources, soil pollution and odor problems for human health.	Indirect	Moderate	Panels, switches, solar regulators, inverters, etc that break down and become idle during or after the activity in question. The materials will be temporarily stored in the Hazardous Waste Storage Area in the existing facility, classified according to their properties and delivered to licensed recycling companies for recycling. Wastes that cannot be recycled will be given to licensed companies to be disposed of in accordance with the conditions specified in the "Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314. Recycling of PV modules basically consists of 3 steps. The first stage is mechanical, chemical and thermal delamination (separation of layers), the second stage is chemical coating removal and the final stage is chemical extraction. To recycle the crystal, it is necessary to recover crystalline silicon from the modules by pyrolysis at 500 °C and to remove metal anti-reflection and diffusion coatings by acid etching. Leaks caused by rare precious substances (silver, gallium, indium, germanium), conventional materials (aluminum and glass), and hazardous substances (lead and cadmium) in PV modules are among the most important environmental problems caused by PV modules. With the latest	Salihli Municipality The contractor

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
					decisions taken by the European Union Commission, PV panels are included among the Electrical and Electronic Equipment Waste. Recycling 1-ton silicone in the PV module corresponds to approximately 370 kg CO^2 equivalent, which increases to approximately 800 – 1200 kg CO^2 equivalent when produced with 100 % recycled raw materials. Compared to landfilling, the recycling scenario has less impact on the environment.	

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
AIR POLLUTION	**Land Preparation and Construction Phase** Dust emissions from excavation works and exhaust gas from construction machinery and vehicles to be used during the land preparation and construction phase of the project emissions will occur.	Emissions may temporarily cause air pollution and indirectly soil and water pollution. It will also have temporary effects on human health and the flora and fauna of the environment.	Direct	Moderate	In order to minimize dust emissions that will occur during the land preparation and construction phase; Irrigation will be done with water sprinklers on the road routes, filling and unloading operations will be carried out without blowing, vehicles will be covered with tarpaulins during the transportation of materials and the upper part of the material will be kept at 10% humidity. In order to minimize the emissions resulting from vehicles, all vehicles and equipment to be used will be routinely checked, vehicles that require maintenance will be taken into maintenance, and other vehicles will be used in the works until their maintenance is completed. In addition, they will be warned to work in accordance with the Traffic Law and care will be taken to ensure that they load in accordance with the loading standards. At all stages of the project, the provisions of the "Regulation on the Control of Industrial Air Pollution" which came into force after being published in the Official Gazette dated 03.07.2009 and numbered 27277 will be complied with. *The "Exhaust Gas Emission Control Regulation" and its provisions*, which came into force after being published in the Official Gazette dated 11.03.2017 and numbered 30004, will be complied with during the land preparation, construction and operation stages of the Project.	Salihli Municipality The contractor

NOISE AND VIBRATION	**Land Preparation, Construction Stages:** During the land preparation and construction phases of the project, noise will be generated from the operation of construction equipment and machinery equipment.	Noise has negative effects on human health and fauna.	Direct	Moderate	The noise that will occur during the construction phase of the project will be local and temporary and will end at the end of construction. During this phase, regular checks of the work machines to be used will be made to ensure that the limit values specified in the Environmental Noise Control Regulation are not exceeded. Care will be taken to ensure that as few vehicles as possible operate at the same time. During the construction phase, noise will vary throughout the day during the works, but since the works will be carried out during the day (07.00 AM-07.00 PM), noise generation will be limited. During the works within the scope of the project, necessary measures will be taken to minimize noise generation, taking into account the conditions to be observed in road vehicles and the conditions to be observed in equipment used in open areas. In addition, in the project area, the issues specified regarding the "noise criteria for construction sites" will be complied with regarding the noise that will occur during the construction phase, and vehicles with traffic inspections, exhaust measurements and maintenance will be used. In addition, if necessary, workers will be provided with headgear, headphones, earplugs, etc. specified in the Labor Law Number 4857. Protective clothing and equipment such as will be provided.	Salihli Municipality The contractor

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
EXCAVATION AND SOIL POLLUTION	**Land Preparation and Construction Phase** During the land preparation and construction phase of the project, excavation residue material will be generated during excavation.	If not disposed of, it causes visual pollution and dust spread.	Indirect	Moderate	Flammable, explosive and hazardous materials will not be used in the excavation works to be carried out during the land preparation and construction phase. During the works, the provisions of the Waste Management Regulation, the Regulation on the Regular Storage of Numbered Wastes and the Regulation on the Control of Excavation Soil, Construction and Demolition Wastes will be complied with.	Salihli Municipality The contractor

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
	Chance Find Prodecure	Destruction or damage to cultural heritage	Indirect	Moderate	Preparation of a Chance Find Procedure will be provided. Machinery and equipment used around archaeological sites will be carefully selected. The number of chance finds will be monitored.	Salihli Municipality The contractor

Table 10. Constriction Phase Precautions Plan

	Problem	Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
WASTE WATER	**Operation Phase;** Domestic wastewater will be generated due to the personnel to work.	When they are not treated or disposed of appropriately, they cause underground and surface water pollution and soil pollution, and can negatively affect human and environmental health.	Indirect	Moderate	The water need of 2 personnel who will work during the operation phase is calculated as **0,60 m³/day**, and the amount of wastewater it will create is calculated as **0,29 m³/day**. A septic tank will be installed for the sink needs of the people who will work in the planned project and will be drawn by a sewage truck at certain periods.	Salihli Municipality

SOLID WASTE- HAZARDOUS WASTE- MEDICAL WASTE- PACKAGING WASTE	**Operation Phase** Municipal waste caused by personnel working in the project area Packaging waste from personnel In addition, there are hazardous waste, waste batteries and accumulators.	When not disposed of, it causes contamination of underground and surface water resources, soil pollution and odor problems for human health.	Indirect	Moderate	Municipal waste will be generated due to a total of 2 personnel who will work during the land preparation and construction phases of the project. Among the wastes that can be generated, recyclable (paper, plastic, glass, etc.) and non-recyclable wastes (food scraps, etc. organic waste) will be collected separately in garbage containers placed at various points of the project site. Wastes that can be recycled will be sent to licensed recycling companies; Domestic solid waste that cannot be recycled will be disposed of by giving it to the relevant Municipality. For the packaging waste generated in the facility, in accordance with the colors specified within the scope of the "Zero Waste Regulation" published in the Official Gazette No. 30829 dated 12.07.2019 (blue color for paper waste, yellow color for plastic waste, gray color for metal waste, green color for glass waste). and black for non-recyclable waste) waste bins will be provided, a Zero Waste Management System will be established and data of the waste collected for the previous month will be entered into the Integrated Environmental Information System (e- çbs) within the framework of the relevant regulation by the 15th of each month. Since the solid waste that will be generated within the scope of the project will not be	

					stored in the project area for a long time, it will not cause any problems such as odor, appearance or leakage. All solid wastes (food scraps, packaging paper, pet bottles, glass bottles, etc.) to be generated within the scope of the project are subject to the "Waste Management Regulation", "Packaging Waste Control Regulation", "Zero Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314. It will be disposed of in accordance with the "Waste Regulation". Panels, switches, solar regulators, inverters, etc that break down and become idle during or after the activity in question. The materials will be temporarily stored in the Hazardous Waste Storage Area in the existing facility, classified according to their properties and delivered to licensed recycling companies for recycling. Wastes that cannot be recycled will be given to licensed companies to be disposed of in accordance with the conditions specified in the "Waste Management Regulation", which came into force after being published in the Official Gazette dated 02.04.2015 and numbered 29314. Recycling of PV modules basically consists of 3 steps. The first stage is mechanical, chemical and thermal delamination (separation of layers), the second stage is	

Problem		Potential Impact	Effect Type	Impact Significance	Mitigation Measures	Responsible Party
					chemical coating removal and the final stage is chemical extraction. To recycle the crystal, it is necessary to recover crystalline silicon from the modules by pyrolysis at 500 °C and to remove metal anti-reflection and diffusion coatings by acid etching. Leaks caused by rare precious substances (silver, gallium, indium, germanium), conventional materials (aluminum and glass), and hazardous substances (lead and cadmium) in PV modules are among the most important environmental problems caused by PV modules. With the latest decisions taken by the European Union Commission, PV panels are included among the Electrical and Electronic Equipment Waste. Recycling 1-ton silicone in the PV module corresponds to approximately 370 kg CO^2 equivalent, which increases to approximately 800 – 1200 kg CO^2 equivalent when produced with 100 % recycled raw materials. Compared to landfilling, the recycling scenario has less impact on the environment.	

Table 11. Land Preparation and Construction Phase Monitoring Plan

PARAMETER TO BE MONITORED		LOCATION OF THE PARAMETER	MONITORING METHOD	VIEWING FREQUENCY	REASON FOR WATCHING	CORPORATE RESPONSIBILITY	Cost
Excavation Waste		In the project area	Visual inspection, record and report keeping	During the excavation works, continuous	Compliance with the Regulation on the Control of Excavation Soil, Construction and Demolition Waste	-Salihli Municipality -Contractor	Included in the project budget
Air Management	Dust Emission	Construction site and transportation routes	Observational	Throughout the entire construction	Monitoring whether measures are taken to prevent dust emissions, protecting the environment and employee health, Industrial Air Pollution Control Regulation, Air Quality Assessment and Management Regulation, IFC Environmental Health and Safety Guidelines : Air Emissions and Ambient Air Quality	-Salihli Municipality -Contractor	Included in the project budget
	Vehicle Emissions	Construction equipment exhausts	Observational	During periodic maintenance periods of vehicles	Ensuring compliance with the Exhaust Gas Emissions Control Regulation, IFC Environmental Health and Safety Guidelines : Air Emissions and Ambient Air Quality	-Salihli Municipality -Contractor	Included in the project budget
Noise		In sensitive areas near construction sites and work areas	With Noise and Vibration Measurement Device, by a Qualified and Accredited Company (Observational)	In cases where there is a grievance	Environmental Noise Control Regulation, Regulation on the Protection of Employees from Noise-Related Risks, IFC Environmental, Health and Safety Guidelines : Noise Management	-Salihli Municipality -Contractor	Included in the project budget
Vibration		In sensitive areas near construction sites and work areas	With Noise and Vibration Measurement Device, by a Qualified and Accredited Company (Observational)	In studies carried out at different points or in cases	Environmental Noise Control Regulation, Regulation on the Protection of Employees from Noise-Related Risks,	-Salihli Municipality -Contractor	Included in the project budget

PARAMETER TO BE MONITORED		LOCATION OF THE PARAMETER	MONITORING METHOD	VIEWING FREQUENCY	REASON FOR WATCHING	CORPORATE RESPONSIBILITY	Cost
				where there is a grievance	IFC Environmental, Health and Safety Guidelines : Noise Management		
Landscape		Areas where construction work will be carried out	Taking photos and recording with a camera	Continually observational	For landscaping works to be carried out after construction	-Salihli Municipality	Included in the project budget
Waste Manage ment	Municipal waste, Packaging Waste	In the construction area or in the area to be used as a construction site	Observational Audit and Recording	Daily	Ensuring compliance with the Regulation on Soil Pollution Control and Point Source Contaminated Sites, Packaging Waste Control Regulation, Waste Management Regulation, IFC Environmental, Health and Safety Guidelines: Waste Management	-Salihli Municipality -Contractor	Included in the project budget
	Hazardous Wastes	In the construction area or in the area to be used as a construction site	Observational Audit and Recording	Continually	Ensuring compliance with the Waste Management Regulation, IFC Environmental, Health and Safety Guidelines: Waste Management	-Salihli Municipality -Contractor	Included in the project budget
	Other Wastes (Battery, Battery, etc.)	In construction sites	Recording the Delivery to Recycling Companies	Continually	Regulation on the Control of Waste Batteries and Accumulators, IFC Environmental health oath Safety Guidelines: Waste Management	-Salihli Municipality -Contractor	Included in the project budget
Occupational Health and Safety		In all studies	Observation and supervision	Continually	Ensuring compliance with Labor Law and Regulations, IFC Environmental, Health and Safety Guidelines: Occuptional Health and Safety	-Salihli Municipality	Included in the project budget
Transportation (Traffic load that may occur		On-site and off-site roads	Observational	Continually	Life and property safety Road Traffic Law	-Salihli Municipality	Included in the project budget

PARAMETER TO BE MONITORED	LOCATION OF THE PARAMETER	MONITORING METHOD	VIEWING FREQUENCY	REASON FOR WATCHING	CORPORATE RESPONSIBILITY	Cost
during the transportation of panels)						
Labor and Labor Flow	In all studies	Inspection of inappropriate working conditions, child labor, unregistered employment	Continually	Ensuring compliance with Labor Law and Regulations, IFC Environmental, Health and Safety Guidelines: Occuptional Health and Safety	-Salihli Municipality	Included in the project budget
Waste water	Septic tank	Analysis	During the construction phase	Water Pollution Control Regulation, IFC Environmental, Health and Safety Guidelines: Wastewater Management	-Salihli Municipality -Contractor	Included in the project budget
Grievance Mechanism	In all studies	Documentation control, review of grievance records, number and nature of resolved grievances	Continually	Examining Accident Records, Carrying out Internal and External Audits and Due to the functioning of the Grievance Mechanism	-Salihli Municipality -Contractor	Included in the project budget
Climate Change	In all studies	Calculation of greenhouse gas emissions reduced within the scope of the project (documentation control)	Annually	Adapting to Climate Change / Reducing greenhouse gas emissions	-Salihli Municipality	Included in the project budget
Public Health and Safety Community Engagement	In all studies	Documentation control Examining security records and keeping an eye out for elements that may threaten public health and safety during construction.	Monthly	Examining grievance records, Keeping training records, Preparation of exercise reports Archiving of Accident Registration, Meeting and Announcement Minutes IFC Environmental Health and Safety Guidelines : Community Health and Safety	-Salihli Municipality	Included in the project budget
Cultural Assets/Chance finds	In excavations	Observational	During the construction phase	Law on the Protection of Cultural and Natural Assets, OP 4.11 Physical and Cultural Resources	-Salihli Municipality -Contractor	Included in the project budget

Table 12. Operation Phase Monitoring Plan

PARAMETER TO BE MONITORED		LOCATION OF THE PARAMETER	MONITORING METHOD	VIEWING FREQUENCY	REASON FOR WATCHING	CORPORATE RESPONSIBILITY	Cost
Waste Manage ment	Municipal waste, Packaging Waste	In the construction area or in the area to be used as a construction site	Observational Audit and Recording	Daily	Ensuring compliance with the Regulation on Soil Pollution Control and Point Source Contaminated Sites, Packaging Waste Control Regulation, Waste Management Regulation, IFC Environmental, Health and Safety Guidelines: Waste Management	- Salihli Municipality	Included in the project budget
	Hazardous Wastes	In the construction area or in the area to be used as a construction site	Observational Audit and Recording	Continually	Ensuring compliance with the Waste Management Regulation, IFC Environmental, Health and Safety Guidelines: Waste Management	- Salihli Municipality	Included in the project budget
	Other Wastes (Battery, Battery, etc.)	In construction sites	Recording the Delivery to Recycling Companies	Continually	Regulation on the Control of Waste Batteries and Accumulators, IFC Environmental health oath Safety Guidelines: Waste Management	- Salihli Municipality	Included in the project budget
Occupational Health and Safety		In all studies	Observation and supervision	Continually	Ensuring compliance with Labor Law and Regulations, IFC Environmental, Health and Safety Guidelines: Occupational Health and Safety	- Salihli Municipality	Included in the project budget
Labor and Labor Flow		In all studies	Inspection of inappropriate working conditions, child labor, unregistered employment	Continually	Ensuring compliance with Labor Law and Regulations, IFC Environmental, Health and Safety Guidelines: Occupational Health and Safety	- Salihli Municipality	Included in the project budget

PARAMETER TO BE MONITORED	LOCATION OF THE PARAMETER	MONITORING METHOD	VIEWING FREQUENCY	REASON FOR WATCHING	CORPORATE RESPONSIBILITY	Cost
Waste water	Septik tank	Analysis	During the construction phase	Water Pollution Control Regulation, IFC Environmental, Health and Safety Guidelines: Wastewater Management	- Salihli Municipality	Included in the project budget
Grievance Mechanism	In all studies	Documentation control, review of grievance records, number and nature of resolved grievances	Continually	Examining Accident Records, Carrying out Internal and External Audits and Due to the functioning of the Grievance Mechanism	- Salihli Municipality	Included in the project budget
Climate Change	In all studies	Calculation of greenhouse gas emissions reduced within the scope of the project (documentation control)	Annually	Adapting to Climate Change / Reducing greenhouse gas emissions	- Salihli Municipality	Included in the project budget
Public Health and Safety Community Engagement	In all studies	Documentation control Examining security records and keeping an eye out for elements that may threaten public health and safety during construction.	Monthly	Examining grievance records, Keeping training records, Preparation of exercise reports Archiving of Accident Registration, Meeting and Announcement Minutes IFC Environmental Health and Safety Guidelines: Community Health and Safety	- Salihli Municipality	Included in the project budget

6. Stakeholder Engagement

A stakeholder can be defined as any person, institution or group that has an interest/share in the project and its impacts. The purpose of stakeholder identification is; it is the identification and prioritization of project stakeholders, who may be directly or indirectly, negatively or positively affected by the project, or who are not directly affected but may be interested in the project, for consultation purposes. All stakeholder groups that are interested in the outcome of the project, that may be affected by the project, or that may have an impact on it will be identified. It involves screening a wide range of potential stakeholders, including institutions, associations, NGOs and other informal groups that should be included in the stakeholder engagement process.

The purpose of stakeholder participation; it is to ensure continuous communication with stakeholders to provide them with information about the activities to be carried out during the construction and operation periods of the project, including project performance, project development and investment plans and their implementation. Stakeholder engagement is an activity that will continue throughout the planning, construction, operation and closure phases.

The people who will be primarily affected by the project are the people living in Mersinli neighbourhood, which is located in settlements close to the project route.

It is important to make particular efforts to identify disadvantaged and vulnerable stakeholders who may be differently or disproportionately affected by the project or who may have difficulty participating in the participation and development process. Stakeholder identification is also an ongoing process and will require regular review and updating.

The stakeholder analysis table determined within the scope of the project in question is given below.

Table 13. Stakeholder Analysis Table

Parties Affected by the Project	The project is located in the residential area. Mersinli Neighborhood and approximately 1,578 people living here In addition, vulnerable groups living in this settlement Salihli Municipality
Other Interested Parties	World Bank Ilbank Ministry of Environment, Urbanization and Climate Change Energy and Natural Resources Ministry Manisa Governorship Provincial Directorate of Environment, Urbanization and Climate Change Ilbank İzmir Regional Directorate

	Türkiye Electricity Distribution Inc. Gediz Electricity Distribution Inc. The contractor Advisor
Final Beneficiary	Salihli Municipality The project is located in the residential area. Mersinli Neighborhood and approximately 1,578 people living here

Within the scope of the project in question, the opinions of all stakeholders will be taken into account, and a social impact assessment of the project will also be carried out. This evaluation will be shaped as a result of scientific and observational-based research within the framework of literature study, measurable sampling surveys (household and headman surveys), observations and evaluations.

The implementation stages of the research are planned as follows:

- Clearly determining the objectives and studying the literature,
- Data collection process,
    - * Design and selection of the sample
    - * Development of data collection tools
    - * Collection of data
- Entering and analyzing data into the statistical program for social sciences (SPSS),
- Writing the report in line with the data obtained,
- Utilizing these data within the scope of the project,
  The main aims of this research are;
- To determine the current social and economic situation of the people living in the settlements around the project area,
- To evaluate the socio-economic effects of the works planned to be carried out within the scope of the project on the households in the immediate vicinity and to investigate whether some social groups will be negatively affected,
- Eliminating adverse effects means reducing and compensating for their effects when it is not possible to eliminate them.

Surveys will consist of a mixture of closed questions (mainly statistical data) and open or semi-open questions (mainly to obtain qualitative information) to cover areas of interest emerging from the literature study. The surveys planned to be implemented will be household and headman surveys. Details of the surveys are given below.

Mukhtar Surveys:

The aim of the interviews with the headmen is to collect general information about the settlements. Mukhtar survey in general; It consists of questions aimed at learning the demographic profile and social structure, services, infrastructure, environment, cultural structure, economic activities, education, health, information about the problems in the settlement and the opinions of the headmen about the project.

Household Survey:

The household survey aimed to collect information about the general socio-economic status of the households within the research area and their general opinions and expectations about the project. Household survey in general; It consists of questions aiming to learn the demographic and economic profile of the households, infrastructure and housing situation, education, health, problems and their opinions about the project.

When evaluating social and environmental impacts, all direct-indirect, short-term-long-term, planned-unplanned, known-unknown, purposeful-unintentional, visible-invisible impacts should be taken into account. In some cases, the entire segment of the society may be affected, and in other cases, a certain segment of the society may be affected. Some effects may remain invisible for a long time. In this context, the potential impacts that the project may have on the socio-economic environment in the region will be evaluated and the mitigation measures that need to be taken regarding these impacts will be defined. In the light of the findings resulting from all these studies, impact mitigation strategies will be determined and positive steps will be taken for the project in consultation with stakeholders.

Grievance Mechanism

The purpose of the Grievance Mechanism is to ensure that people affected by the project, including primarily affected communities and project staff, have access to the problem-solving procedure. Grievances may indicate growing stakeholder concerns and may escalate if not identified and resolved. Identifying and responding to grievances supports the development of positive relationships between project staff, local communities and other stakeholders. To evaluate the Environmental and Social Impacts of the Project during the construction and operation phase of the Project; A grievance mechanism will be prepared to cover all grievances expressed by all stakeholders, including the activities of contractors. While the grievance mechanism is being established, a telephone line that will be active 24/7 will be established, and opinions and grievances will be collected by e-mail, postal mail and orally. Stakeholders may request that their grievances be recorded anonymously.

A structured Grievance Mechanism ensures that Project-related grievances are addressed through a transparent and impartial process. In this regard, from the early stages of the project's life cycle, the grievance procedure will be and will continue to be disclosed to the public through individual or group meetings, printed materials and notice boards.

Since the current installed system does not have a project-specific mechanism and recording system that complies with international standards, it is expected that a project-specific Grievance Mechanism will be established. In this regard, the personnel appointed by the municipality will record the grievances and suggestions received from different channels in a single established system and provide solutions within the time and application framework specified below. Personnel to be appointed by the Salihli municipality:

- From people communicating via phone/e-mail,
- From stakeholders who want to communicate based on project documentation,
- Coming from construction period personnel,
- From business personnel,
- It will record and track all grievances forwarded to contractors and written in petitions in a single system.

In order for this method to be successful, the appointed Salihli Municipal personnel, other municipal experts and subcontractors will be in constant contact. Introducing the grievance mechanisms, which are open to the public and will be established separately for employees, to the relevant stakeholders will also be included in the job description of the Salihli Municipality personnel to be appointed.

The Grievance Mechanism will be informed about the guide prepared by the World Bank to prevent sexual exploitation, abuse and harassment of projects financed within the scope of construction works. Grievances of gender-based violence, exploitation and harassment can create a culture of silence due to possible negative reactions by society. In order to prevent this, it is of great importance for stakeholders to submit grievances regarding these issues regarding the Project anonymously. In addition, authorities handling grievances must handle such matters confidentially and with an unbiased approach.[3]

In the Mechanism to be established, all grievances received will be recorded in the Grievance Log by assigning a reference number.

Contact channels for formal grievances are provided below.

Salihli Municipality:

The contact information of Salihli Municipality, which stakeholders will use to convey their grievances, is given below.

Website: https://www.salihli.bel.tr/
Email: info@salihli.bel.tr
Phone number: 0236 713 26 40

[3] Environmental & Social Framework for IPF Operations

Official letter: Atatürk Mahallesi, 535. Sk. No:2, 45300 Salihli/MANISA

Presidential Communication Center:

Presidential Communication Center (CİMER) provides a central grievance system for Turkish citizens, legal entities and foreigners. CİMER will be offered to Project stakeholders as an alternative and well-known channel to convey their grievances and feedback regarding the Project directly to government authorities.

Website: www.cimer.gov.tr
Call Center: 150
Phone number: +90 312 525 55 55
Fax number: +90 0312 473 64 94
Foreigners Contact Center: Address for Official Letter: Republic of Türkiye, Directorate of Communications Kizilirmak Mahallesi Mevlana Bulvari No:144 CANKAYA/ANKARA
Individual applications: Community relations desks at governorates, ministries, and district governorates
Mail addressed to Republic of Türkiye, Directorate of Communications: cumhurbaskanligi@tccb.gov.tr

Foreigners Communication Center: Foreigners Communication Center (YİMER) offers a central grievance system for foreigners. YİMER will be offered to foreign stakeholders of the Project as an alternative and well-known channel to convey their grievances and feedback regarding the Project directly to government authorities.

Web site: www.yimer.gov.tr
Call Center: 157
Phone number: +90 312 5157 11 22
Fax number: +90 0312 920 06 09
Address for Official Letter: Republic of Türkiye General Directorate of Migration Management, Camlica Mahallesi 122. Sokak No: 4 Yenimahalle /ANKARA
Individual applications: Republic of Türkiye General Directorate of Migration Management.
Mail addressed to Republic of Türkiye, Directorate of Communications

ILBANK:

In addition, if complainants do not find the feedback they receive from the municipality sufficient, they can forward their grievances to ILBANK as a higher authority, using the communication tools below.

Website: https//www.ilbank.gov.tr/form/bilgiedinmeuluslararasi
E-mail: bilguidb@ibank.gov.tr and etikuidb@ilbank.gov.tr
Phone number: +90 312 508 79 79
Official letter: ILBANK International Relations Unit, GM Team (letters should be marked as personal or confidential) Emniyet Neighbourhood Hipodrom Street No: 9/21 Yenimahalle/Ankara

WORLD BANK:

Complainants, project-affected communities and individuals may submit their grievances using the following communication tools to the Bank's independent Inspection Panel, which determines whether harm has occurred or may have occurred as a result of the Bank's failure to comply with its policies and procedures.

Website: https://www.inspectionpanel.org/how-to-file-grievance
E-mail: ipanel@worldbank.org
Phone number: +1 202 458 5200
Official letter: Control Panel, Mail Stop MC10-1007, 1818 H Street, NW, Washington, DC 20433, USA

In addition to the municipality's communication tools, the following communication channels can also be used to submit grievances.

- Grievance boxes at construction sites (mainly for internal grievances) and the muhtar's offices of the relevant neighborhoods and/or designated locations for grievance boxes,
- Direct contact with construction site managers,
- Meetings and/or formal/informal consultations

In addition, a Grievance Mechanism will operate for employees, and all project employees will be notified through written and verbal communication. Each employee will be informed about the grievance redressal mechanism when hired and details of how the mechanism works will be specified. Requests requiring urgent solution and/or support will be responded to and support will be provided on the same day.

Table 14. Grievance Mechanism Flow Chart

Period	Action
Business Induction Letter	Before the project activity begins, the residents of the neighborhood will be informed that the work will start with a Start of Work Information Letter (See Annex-12). This letter will include the contact information of a person authorized by the municipality.
Submission of Grievance	The subject of the grievance is communicated by the complainant through any communication channel.
Grievance Registration	Grievances will be recorded with the Grievance Form (See Annex-11). All grievances will be recorded within two (2) days and feedback will be given to the complainant. If the complainant requests that this grievance be handled anonymously, this grievance will be recorded anonymously and the request will be accommodated. The action taken regarding the issue will be published on the Salihli Municipality's website if the anonymous person's communication channel is not available.
Evaluation of Grievances	Grievances will be evaluated within 10 business days and it will be determined whether the grievance meets the acceptability criteria. If the grievance is not valid, the necessary explanation will be made to the complainant.
Responding to Grievances	The grievance will be evaluated. If necessary, the grievance will be examined on-site. Depending on the type of grievance, representatives of the affected community will be interviewed. The actions taken to resolve the grievance and the results will be communicated to the petitioner. If the issue underlying the grievance is not resolved, the complainant will have the right to apply to the Court of First Instance and/or ILBANK, depending on the content of the grievance.
Grievance Closing	Unless an alternative agreement is made regarding the closing time of the complainant's grievance, relevant actions will be taken and documented within fifteen (15) business days from the date of application. Then, the grievance will be closed with the grievance close out form (See Annex-13). Recorded grievances and their responses will be shared on the Salihli Municipality's website. Thus, all complainants, including anonymous complainants, will be informed about their grievances and their consequences.
In Case the Grievance Cannot Be Resolved	The project grievance mechanism is monitored by ILBANK. Grievances will be evaluated by the Municipality and ILBANK will be informed. The actions taken to resolve the grievance will be communicated to the complainant by the Municipality. ILBANK will monitor the Municipality to ensure that the grievance mechanism operates smoothly. If the grievance is not resolved, the complainant can apply to the Civil Court of First Instance or ILBANK.
Reporting	The responsible department will ensure that all processes are carried out in accordance with the Grievance Process. A Consultation form will be prepared to record the questions and/or concerns of stakeholders during the process (See Annex-14). Grievances will be monitored and reported at regular intervals so that they can be analyzed regarding their type, frequency and how the grievances are resolved.

The Grievance Form, Starting Work Information Letter, Grievance Close-Out Form and Consultation Form prepared within the scope of the Grievance Mechanism are attached (See Annex-11, Annex-12, Annex-13, Annex-14).

7. Minutes of Public Consultation Meeting

According to the ESMF prepared within the scope of SCP-II AF, a Public Consultation Meeting was held on 29.11.2024 for Category B subprojects in order to inform the local people after the ESMP was finalized. In order to announce the meeting, it was announced on the Salihli Municipality website 14 days ago, advertisements were given in local and national newspapers, and the public was invited to the meeting via mass SMS. Details of the meeting and the prepared Public Consultation Meeting Minutes are provided in Annex 17.

8. Attachments

Annex-1	Parcel Area Coordinates
Annex-2	Location Map
Annex-3	Land Registry
Annex-4	Project Area Photos
Annex-5	Project Area Transportation Road Route
Annex-6	Electricity Transmission Line Route
Annex-7	Dust Emission Mass Flow Calculation
Annex-8	Noise Calculation
Annex-9	Connection Agreement
Annex-10	SPP Aluminum and Steel Carrier System Static Calculation Report
Annex-11	Grievance Form
Annex-12	Starting Work Information Letter
Annex-13	Grievance Close Out Form
Annex-14	Consultation Form
Annex-15	Line Diagram
Annex-16	EIA Not Necessary Decision
Annex-17	Public Colsultation Meeting Minutes

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ANNEX 1

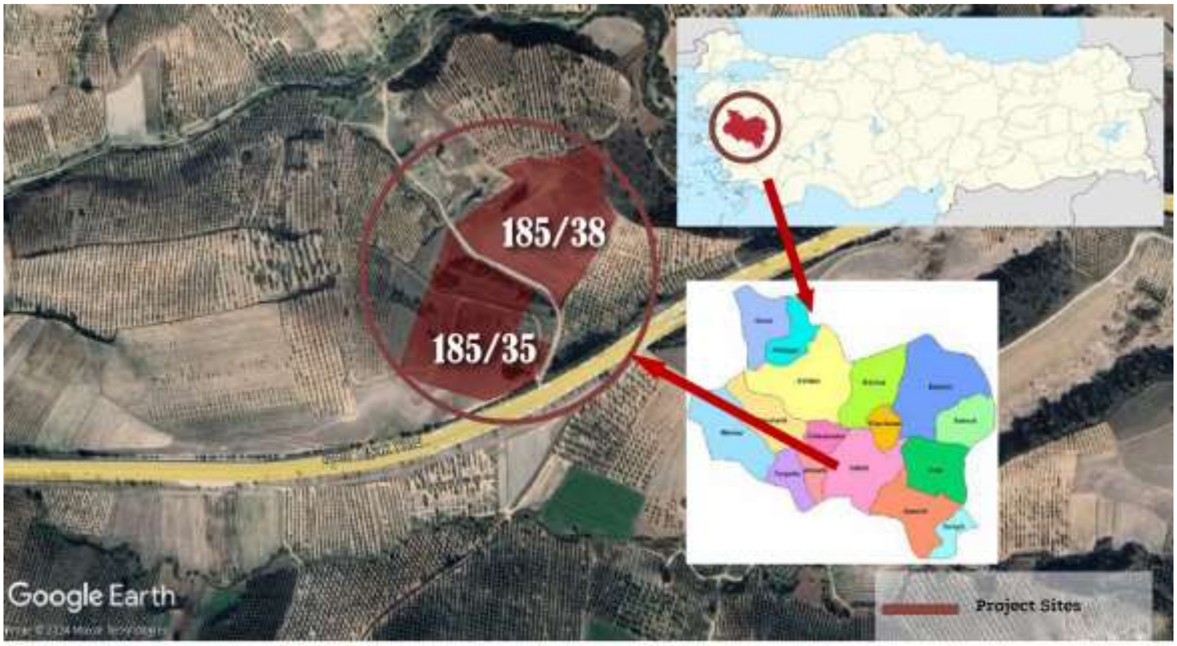
PARCEL AREA COORDINATES

NOKTA NO	Y	X	NOKTA NO	Y	X
1850032	617516.88	4265771.52	1850155	617271.00	4266020.18
1850033	617488.23	4265777.84	1850157	617290.65	4266005.79
1850034	617472.57	4265766.29	1850157	617290.65	4266005.79
1850035	617463.34	4265754.18	1850158	617138.31	4266002.05
1850036	617450.65	4265726.51	1850158	617138.31	4266002.05
1850036	617450.65	4265726.51	1850160	617304.20	4265992.78
1850037	617441.89	4265703.37	1850160	617304.20	4265992.78
1850037	617441.89	4265703.37	1850162	617145.64	4265989.18
1850038	617445.65	4265675.53	1850162	617145.64	4265989.18
1850039	617444.07	4265650.63	1850165	617314.81	4265981.44
1850040	617431.41	4265643.16	1850165	617314.81	4265981.44
1850041	617394.20	4265622.68	1850166	617159.54	4265979.68
1850042	617353.72	4265603.79	1850166	617159.54	4265979.68
1850134	617146.74	4266016.97	1850168	617323.60	4265972.06
1850134	617146.74	4266016.97	1850168	617323.60	4265972.06
1850135	617156.05	4266033.43	1850171	617173.75	4265969.02
1850135	617156.05	4266033.43	1850171	617173.75	4265969.02
1850136	617189.39	4266093.30	1850172	617496.13	4265967.42
1850136	617189.39	4266093.30	1850173	617474.33	4265961.23
1850149	617241.83	4266050.22	1850174	617329.53	4265958.31
1850149	617241.83	4266050.22	1850174	617329.53	4265958.31
1850153	617257.02	4266029.29	1850175	617454.35	4265952.12
1850153	617257.02	4266029.29	1850176	617197.72	4265951.11
1850155	617271.00	4266020.18	1850176	617197.72	4265951.11

NOKTA NO	Y	X	NOKTA NO	Y	X
1850177	617499.52	4265950.65	1850197	6177330.45	4265885.62
1850178	617333.19	4265948.97	1850197	6177330.45	4265885.62
1850178	617333.19	4265948.97	1850199	617264.25	4265881.18
1850179	617403.54	4265945.51	1850199	617264.25	4265881.18
1850180	617382.68	4265943.08	1850200	617516.15	4265879.79
1850181	617420.62	4265942.80	1850202	617523.25	4265870.43
1850182	617499.12	4265942.43	1850204	617530.96	4265865.78
1850183	617340.81	4265939.66	1850208	617290.22	4265853.67
1850183	617340.81	4265939.66	1850208	617290.22	4265853.67
1850186	617215.61	4265932.92	1850208	617290.22	4265853.67
1850186	617215.61	4265932.92	1850208	617290.22	4265853.67
1850187	617352.58	4265931.98	1850238	617323.75	4265785.33
1850187	617352.58	4265931.98	1850238	617323.75	4265785.33
1850187	617352.58	4265931.98	1850240	617356.62	4265771.19
1850188	617498.58	4265931.13	1850240	617356.62	4265771.19
1850189	617369.30	4265921.31	1850266	617364.76	4265670.38
1850189	617369.30	4265921.31	1850266	617364.76	4265670.38
1850189	617369.30	4265921.31	1850269	617339.72	4265655.03
1850190	617500.37	4265913.95	1850269	617339.72	4265655.03
1850191	617233.73	4265911.63	1850270	617363.50	4265651.94
1850191	617233.73	4265911.63	1850270	617363.50	4265651.94
1850194	617504.38	4265901.42	1850273	617228.25	4265643.21
1850195	617249.26	4265894.87	1850281	617256.36	4265609.28
1850195	617249.26	4265894.87	1850282	617329.12	4265604.71

ANNEX 2

LOCATION MAP



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ANNEX 3

LAND REGISTRY

LOT 35

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR. Tarih: 21-5-2024 08:52

webtapu

Kaydı Oluşturan: ZEHRA BAĞCI (Salihli Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz
Taşınmaz Kimlik No:	131207809
İl/İlçe:	MANİSA/SALİHLİ
Kurum Adı:	Salihli
Mahalle/Köy Adı:	MERSİNLİ Mah.
Mevkii:	-
Cilt/Sayfa No:	22/2968
Kayıt Durum:	Aktif

Ada/Parsel:	185/35
AT Yüzölçüm(m2):	32402.74
Bağımsız Bölüm Nitelik:	
Bağımsız Bölüm Brüt Yüzölçümü:	
Bağımsız Bölüm Net Yüzölçümü:	
Blok/Kat/Giriş/BBNo:	
Arsa Pay/Payda:	
Ana Taşınmaz Nitelik:	Arsa

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
788144945	(SN:2859776) SALİHLİ BELEDİYESİ VKN:1620058810	-	1/1	32402.74	32402.74	İfraz İşlemi (TSM) 12-12-2023 38777	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (https://webtapu.tkgm.gov.tr adresinden) 0tbvwBqQN_O kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

2 / 2

LOT 38

BU BELGE TOPLAM 2 SAYFADAN OLUŞMAKTADIR BİLGİ AMAÇLIDIR. Tarih: 21-5-2024-08:53

webtapu

Kaydı Oluşturan: ZEHRA BAĞCI (Salihli Belediye Başkanlığı)

Tapu Kaydı (Aktif Malikler için Detaylı - ŞBİ var)

TAPU KAYIT BİLGİSİ

Zemin Tipi:	AnaTasinmaz
Taşınmaz Kimlik No:	131207812
İl/İlçe:	MANİSA/SALİHLİ
Kurum Adı:	Salihli
Mahalle/Köy Adı:	MERSİNLİ Mah.
Mevkii:	-
Cilt/Sayfa No:	22/2971
Kayıt Durum:	Aktif

Ada/Parsel:	185/38
AT Yüzölçüm(m2):	29553.87
Bağımsız Bölüm Nitelik:	
Bağımsız Bölüm Brüt Yüzölçümü:	
Bağımsız Bölüm Net Yüzölçümü:	
Blok/Kat/Giriş/BBNo:	
Arsa Pay/Payda:	
Ana Taşınmaz Nitelik:	Arsa

MÜLKİYET BİLGİLERİ

(Hisse) Sistem No	Malik	El Birliği No	Hisse Pay/ Payda	Metrekare	Toplam Metrekare	Edinme Sebebi-Tarih-Yevmiye	Terkin Sebebi-Tarih-Yevmiye
788144951	(SN:2859776) SALİHLİ BELEDİYESİ VKN:1620058810	-	1/1	29553.87	29553.87	İfraz İşlemi (TSM) 12-12-2023 38777	-

1 / 2

Bu belgeyi akıllı telefonunuzdan karekod tarama programları ile aşağıdaki barkodu taratarak;
veya Web Tapu anasayfasından (https://webtapu.tkgm.gov.tr adresinden) _3EJDExR4IT kodunu Online İşlemler alanına yazarak doğrulayabilirsiniz.

2 / 2

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ANNEX 4

PROJECT AREA PHOTOS

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ANNEX 5

PROJECT AREA TRANSPORTATION ROAD ROUTE

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ANNEX 6

ELECTRICITY TRANSMISSION LINE ROUTE

ANNEX 7

DUST EMISSION MASS FLOW CALCULATION

Mass Flow Calculations Emission Factors (SKHKKY)

PROCESS	EMISSION FACTOR	
	Uncontrolled	**controlled**
Disassembly of Materials	0,025 kg/ton	0,0125 kg/ton
Storage	5,8 kg/ha.day	2,9 kg/ha.day

The excavation and ground preparation works of the planned project are expected to be completed within 3 weeks. In the calculations, the excavation density was taken as 1,7 tons/m³ and all calculations are given below:

Dismantling Excavation Materials and Loading them into Vehicles

Material Dismantling

Within the scope of the project, a total of 2.457 m³ of materials will be dismantled in the project area. The mass flow rate of the emission that will occur is calculated using the controlled and uncontrolled emission factor and is given below.

Controlled

Dust Emission **(E_1)** = [2.457 m³ x 1,7 tons/m³ x 0,0125 kg/ton] / [21 days x (12 h/day)]

= **0,20 kg/hour**

Uncontrolled

Dust Emission **(E_1)** = [2.457 m³ x 1,7 tons/m³ x 0,025 kg/ton] / [21 days x (12 h/day)]

= **0,41 kg/hour**

Storage of material

The resulting excavation waste will be temporarily stored where the excavation is carried out and will later be used as filling material. In this context, it is planned to store 1.218 m³ of materials at approximately 3 m elevations. Calculations for controlled and uncontrolled dust emissions that will occur in these processes are given below:

Excavation storage area = 2.457 m^3 / 3 m **= 819 m² = 0,8 ha**

Controlled

Dust Emission **(E_2)** = 0,8 ha x 2,9 kg/ha.day x (1 day/24 hours)
= 2,32 kg/hour

Uncontrolled

Dust Emission **(E_2)** = 0,8 ha x 5,8 kg/ha.day x (1 day/24 hours)
= 4,64 kg/hour

Total Emission (Controlled); **= $E_1 + E_2$**
= 0,20 + 2,32
= 2,52 kg/hour

Total Emission (Uncontrolled); **= $E_1 + E_2$**
= 0,41+ 4,64
= 5,05 kg/hour

The dust emission that will occur if the dismantling, loading, unloading, transportation and storage of the excavation are carried out simultaneously within the scope of the land preparation and construction works of the project has been calculated.

Since the dust emission value calculated in the controlled situation was 5,05 kg/hour, air quality modeling was not needed within the scope of the construction phase of the project.

ANNEX 8

NOISE CALCULATION

The total sound pressure level that will occur under the most adverse conditions, assuming that the machinery and equipment to be used during the construction works are working at the same time and in distant locations and dispersedly;

It is calculated using the formula $L_{pt} = 10 \text{ Log } ( ).\sum_{i=1}^{n} 10^{Lpi/10}$

L_{pt} = Total sound pressure level
L_{pi} = Sound pressure level resulting from each work machine

Lpi) created by each work machine at a distance r from each source is calculated by the formula below.

$L_{pi} = L_{wi} + 10 \log (Q/A)$
$A = 4\pi r^2$
Q = Directivity coefficient (Hemispherical distribution of the sound source at ground level, Q = 2)
r = Distance from source (m)
L_{wi} = Sound power level (dB) of each work machine

The decrease in sound due to the effect of the atmosphere (Aatm) depends on the frequency of the source and the distance from the source. The average frequency range for construction equipment and road vehicles is accepted as 3,000-3,500 Hertz. The decrease in the average sound pressure level due to atmospheric retouching is calculated by the formula below.

atm_ = 7.4 x 10-8 x f2 xr / ϕ
atm_ = Decrease in sound pressure level (dBA) with atmospheric retouching
f = Frequency of transmitted sound (3.500)
r = Distance from source (m)
ϕ = Relative humidity of air (62,4%)

The calculation of the total noise level is found by subtracting the atmospheric effect from the total sound pressure level.

$L = L_{pt} - A_{atm}$

In case noise sources operate simultaneously, equivalent noise levels according to distances are calculated using the formula given below. Equivalent noise level distribution is given in table.

Equivalent Noisy of your level To the distances According to Distribution

Distance (m)	25	50	100	200	300	500	750	1.000
$L_{eş}$	34,7	30,7	25,0	25,0	-	-	-	-

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ANNEX 9

CONNECTION AGREEMENT

LİSANSSIZ ELEKTRİK ÜRETİCİLERİ İÇİN DAĞITIM SİSTEMİNE BAĞLANTI ANLAŞMASI

Üretici No: 700533258
Tarih:02.02.2024

Sayısı: 11[1]045[2] 02[3] 02[4]2024

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: GDZ EDAŞ

Üretici:
SALİHLİ BELEDİYE BAŞKANLIĞI
Kanuni Adresleri:
Mersinli Mh. 185 Ada 35-36-38 Parsel
Salihli/MANİSA

v.k. Ahmet Nuri SERHATER

Temsile Yetkili Kişiler
İmzalar:

MURAT KARTAL
Piyasa İşlemleri Müdürü

EMEL GÜVEN
Sistem Kullanım Faturalama ve Alacak Yöneticisi

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.

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ANNEX 10

SPP ALUMINUM AND STEEL CARRIER SYSTEM STATIC CALCULATION REPORT

MULTIWAY+

Better Choice For Higher Efficiency!

HT-SAAE

Electrical Characteristics

Module	HT72-18X (N)				
Maximum Power at STC (Pmax)	560W	565W	570W	575W	580W
Open - Circuit Voltage (Voc)	50.5V	50.7V	50.9V	51.1V	51.3V
Short - Circuit Current (Isc)	14.07A	14.15A	14.23A	14.31A	14.39A
Optimum Operating Voltage (Vmp)	42.3V	42.5V	42.7V	42.9V	43.1V
Optimum Operating Current (Imp)	13.25A	13.31A	13.37A	13.41A	13.47A
Module efficiency	21.70%	21.90%	22.10%	22.30%	22.50%
Power Tolerance	0 ~ + 5W				
Maximum System Voltage	1500V DC (UL / IEC)				
Maximum Series Fuse Rating	30A				
Operating Temperature	-40 ℃ to +85 ℃				

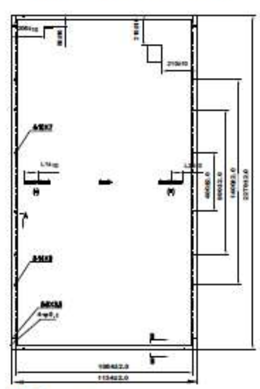
* STC: Irradiance 1000W/m², module temperature 25, AM=1.5
Optional black frame or white frame module according to customer requirements

NMOT

Module	HT72-18X (N)				
Maximum Power	426W	430W	433W	437W	441W
Open - Circuit Voltage (Voc)	48.5V	48.7V	48.9V	49.10V	49.20V
Short - Circuit Current (Isc)	11.34A	11.40A	11.47A	11.53A	11.60A
Maximum Power Voltage (Vmp)	40.6V	40.8V	41.0V	41.2V	41.4V
Maximum Circuit Current (Imp)	10.49A	10.54A	10.56A	10.61A	10.65A
NMOT	45±2℃				

* NMOT: Irradiance 800W/m², ambient temperature 20℃, wind speed 1m/s

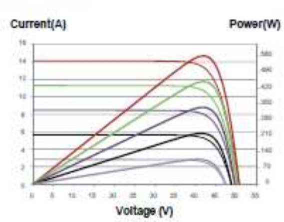
Engineering Drawing



Mechanical Characteristics

Solar Cells	Monocrystalline 182 X 91mm
No.of Cells	144(6 X 24)
Dimensions	2279±2mm X 1134±2mm X 35mm
Weight	27.4kg
Front Glass	High transmission tempered glass; thickness; 3.2mm
Frame	Anodized aluminium alloy
Junction Box	IP68
Cable	4mm² (UL / IEC) length; (+) 400mm (-) 200mm / length can be customized
Connectors	MC4 / MC4 compatible
Packaging Configuration	31pcs / box,620pcs / 40'HQ container

IV Curves



Temperature Characteristics

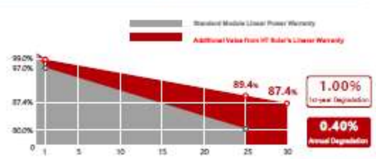
Temperature Coefficient of Pmax	-0.31%/℃
Temperature Coefficient of Voc	-0.25%/℃
Temperature Coefficient of Isc	+0.046%/℃

Warranty

12 - years
product warranty

30- years
warranty on power output

Specific information is referred to the product quality guarantee



The module recycling should be carried out by the professional institutions at the end of module life cycle.

Shanghai Aerospace Automobile Electromechanical Co., Ltd.
www.htsolar.com.tr
Turkey HT Solar Energy Joint Stock Company / Lianyungang ShenZhou New Energy Co., Ltd.

ANNEX 11

GRİEVANCE FORM

	SALİHLİ MUNICIPALITY **SOLAR POWER PLANT PROJECT**
	GRİEVANCE FORM

Person Filling Out the Form:	Date and time:
Meeting Agenda:	Reference No: Salihli Municipality-Project Code-0001-2..
1. INFORMATION ABOUT THE COMPLAINANT	
Name surname:	**How the Grievance Arrives:**
TC Identification number:	Telephone / Toll Free Line ☐
Telephone:	Face to Face Meeting ☐
Address:	Website / Email ☐
Email:	Other (Explain) ☐

Stakeholder Type

State agency ☐	PEB ☐	Private Enterpris ☐	Job Room ☐	NGO ☐
Interest Groups ☐	Industrial Unions ☐	Labor Union ☐	Media ☐	University ☐

2. DETAILED INFORMATION ABOUT THE GRİEVANCE

Description of the grievance:	

Solution method requested by the complainant	

Registrant Name Surname/Signature

Complainant Name Surname/Signature

ANNEX 12

INFORMATION LETTER ON STARTING WORK

Dear Mersinli Neighborhood Residents,

The streets in your village are also covered within the scope of the approved project for the Solar Power Plant work being built by Salihli Municipality. There are.

According to the approved work program, the work in your neighborhood will start soon. First of all, we would like to apologize in advance for any inconvenience we may cause to those around us during the work.

Temporary Traffic Circulation Plans approved by Salihli Municipality will be notified to your neighborhood headman's office, and transportation will be provided through the route determined by direction signs during the period the works continue.

We would like to inform you that we will do our best to cause you minimum inconvenience by completing the construction works as soon as possible in every street where excavation has started during our work.

In addition, the phone numbers of the authorities who can be called in case of any issue or disruption during the works are listed below. We would like to thank you in advance for your support and patience and tolerance to create a cleaner and more beautiful environment.

Regards,

Contact Persons:

Name Surname Phone.

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ANNEX 13

GRİEVANCE CLOSE OUT FORM

	SALİHLİ MUNICIPALITY **SOLAR POWER PLANT PROJECT**
	GRİEVANCE FORM

Person Filling Out the Form:	Date and time:
Meeting Agenda:	Interview Registration Number: Salihli Municipality/Project Code-0001-2..
1. INTERVIEW INFORMATION	
Interviewed Institution:	Form of Communication
Name and Surname of the Interviewee:	Telephone / Toll Free Line ☐
Telephone:	Face to Face Meeting ☐
Address:	Website / Email ☐
Email:	Other (Explain) ☐

Stakeholder Type				
State agency ☐	PEB ☐	Private Enterpris ☐	Job Room ☐	NGO ☐
Interest Groups ☐	Industrial Unions ☐	Labor Union ☐	Media ☐	University ☐

2. INTERVIEW DETAILS	
Questions about the project:	

Concerns/feedback regarding the project:	
Responses to the views expressed above:	

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ANNEX 14

CONSULTATION FORM

	SALİHLİ MUNICIPALITY SOLAR POWER PLANT PROJECT				
	CONSULTATION FORM				
Person Filling Out the Form:			Date and time:		
Meeting Agenda:			Interview Registration Number: Salihli Municipality/Project Code-0001-2..		
1. INTERVIEW INFORMATION					
Interviewed Institution:			Form of Communication		
Name and Surname of the Interviewee:			Telephone / Toll Free Line ☐		
Telephone:			Face to Face Meeting ☐		
Address:			Website / Email ☐		
Email:			Other (Explain) ☐		
Stakeholder Type					
State agency ☐	PEB ☐	Private Enterpris ☐	Job Room ☐	NGO ☐	
Interest Groups ☐	Industrial Unions ☐	Labor Union ☐	Media ☐	University ☐	
2. INTERVIEW DETAILS					
Questions about the project:					
Concerns/feedback regarding the project:					

Responses to the views expressed above:	

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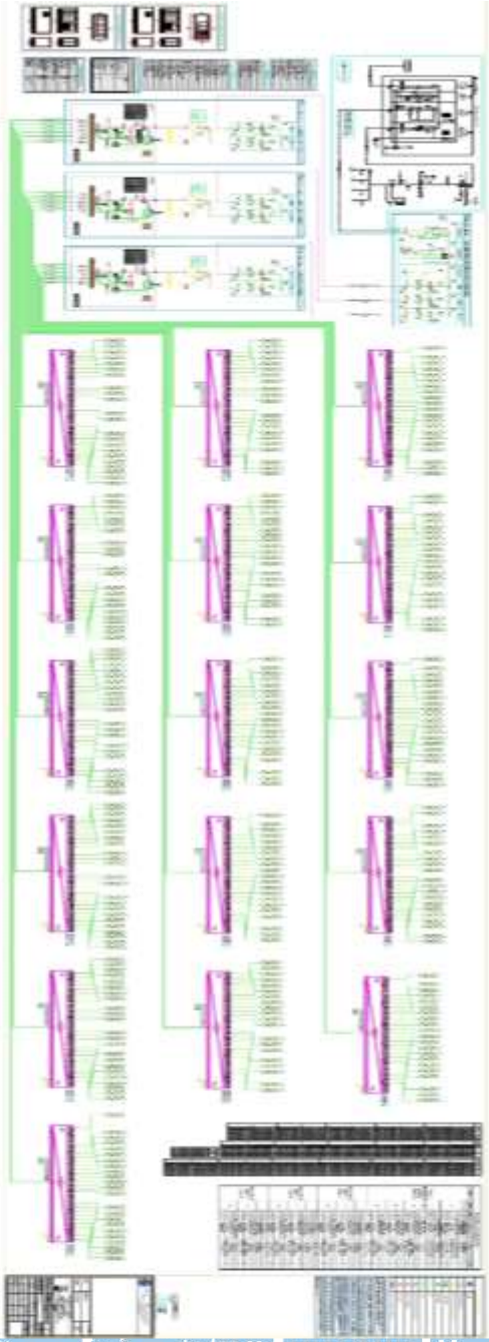
ANNEX 15

LINE DIAGRAM



ANNEX 16

EIA NOT NECESSARY DECISION

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

T.C.
MANİSA VALİLİĞİ
ÇEVRE, ŞEHİRCİLİK VE İKLİM DEĞİŞİKLİĞİ İL MÜDÜRLÜĞÜ

Karar Tarihi : 30-09-2022
Karar No : 34629761 220-02 E-2022431

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 **'Salihli Belediyesi Mersinli Güneş Enerji Santrali (9999 kWp / 9999 kW- 9.99 MWe)'** 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.

Melis Melis KARA
Çevre, Şehircilik ve İklim Değişikliği İl Müdür V.

Proje Sahibi : Salihli Belediyesi
Proje Yeri : Manisa İli, Salihli İlçesi, Mersinli Mahallesi, 185/11, 185/12, 185/13, 185/25 Ada/Parseller
Kapasite : 91.884 m2 lik alanda- 9999 kWp / 9999 kW -9.99 MWe

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SIFIR ATIK

T.C.
MANİSA VALİLİĞİ
Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü

Sayı : E-34629761-220.02-4690253 | 04.10.2022

Konu : Salihli Belediyesi Mersinli GES(9,99 MWe)/ÇED Gerekli Değildir

DAĞITIM YERLERİNE

İlgi : 12.04.2022 tarihli e-ÇED başvurusu.

İlgi başvuru ile; İlimiz, Salihli İlçesi, Mersinli Mahallesi, 185 ada, 11-12-13 ve 25 nolu parsellerde Salihli Belediye Başkanlığı tarafından kurulması planlanan *"Güneş Enerji Santrali (9,99 MWe kapasiteli)"*ne ait e-ÇED sistemi üzerinden sunulan Proje Tanıtım Dosyası incelenmiş ve değerlendirilmiştir.

29.07.2022 tarih ve 31907 sayılı Resmi Gazete' de yayımlanarak yürürlüğe giren ÇED Yönetmeliği 17(1) Maddesi gereği *"Güneş Enerji Santrali (9,99 MWe)"*ne Müdürlüğümüzce 30.09.2022 tarihli ve E-2022431 sayılı "Çevresel Etki Değerlendirmesi Gerekli Değildir" kararı verilmiştir.

Söz konusu faaliyete ilişkin Proje Tanıtım Dosyası ve eklerinde belirtilen hususlar ile 2872 sayılı Çevre Kanunu ve bu Kanuna istinaden yürürlüğe giren ilgili Yönetmeliklere uyulması, mer'i mevzuat uyarınca ilgili kurum/kuruluşlardan gerekli izinlerin alınması, ÇED Yönetmeliğinin 18. maddesi gereğince alınan izin ve ruhsatlar ile yatırımın başlangıç, işletme ve işletme sonrası dönemlerine ilişkin raporların Valiliğimize (Çevre, Şehircilik ve İklim Değişikliği İl Müdürlüğü) iletilmesi gerekmektedir.

Bilgilerinizi ve gereğini arz/rica ederim.

Melih Melik KARA
Çevre, Şehircilik ve İklim Değişikliği İl Müdürü V.

Ek: Çevresel Etki Değerlendirme Belgesi (1 Sayfa)

Dağıtım:

Gereği:
Salihli Belediye Başkanlığına

Bilgi:
ALMER ÇEVRE DENETİM MÜŞ. İŞ. SAĞ. VE GÜV. PROJE TİC. LTD. ŞTİ.NE
Bağlıca Mah. 1067 Sok. A1 Blok No:5/1
ETİMESGUT / ANKARA

Uncubozköy Mah. Mimar Sinan Bulvarı No: 181- Yunusemre/Manisa
Tel :0236 233 26 70-73 Fax: 0236 233 17 90 E-Posta: manisa@csb.gov.tr
Kep: manisacevresehircilik@hs01.kep.tr
KEP Adresi : manisacevresehircilik@hs01.kep.tr
Bilgi için:Seyda YILMAZ
Kimya Yüksek Mühendisi

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ANNEX 17

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SUSTAINABLE CITIES PROJECT – II
OF ADDITIONAL FINANCING

SALIHLI MUNICIPALITY
SOLAR POWER PLANT PROJECT

Minutes of Public Consultation Meeting

Meeting Date: 29.11.2024

Meeting Venue: Salihli Municipality Council Hall

PUBLIC CONSULTATION MEETING

Salihli Municipality SPP Project is among the subprojects within the scope of Sustainable Cities Project-II Additional Financing (SCP-II-AF), which was created to support sustainable development in cities in Turkiye.

The Environmental and Social Management Plan (ESMP) was prepared in accordance with the requirements of the World Bank's Safeguard Policies including Operational Policies (OPs), WBG General EHS Guidelines and Industrial Sector Guidelines, ILBANK's ESMF and the Environmental Legislation of the Republic of Turkiye and the public consultation meeting was held on 29.11.2024 at 14:00 in the Salihli Municipality Council Hall.

Posters and brochures were prepared to inform citizens about the meeting and invite them to the public consultation meeting. They were distributed to the public through the mukhtars' offices. Information was also provided via SMS. In addition, it was announced on the Salihli Municipality’s website and on digital billboards located in the municipality building and various parts of the district.

a.1 Meeting Summary

The Salihli Municipality public consultation meeting started with the opening speech of Deputy Mayor detailed information was provided by the consultant company representative about the process and content of the reports prepared for the implementation of the sub-project. The benefits that the sub-project will provide to the municipality and the local people were mentioned.

Within the scope of the PID reports, the area where the sub-project will be established (as a neighborhood, block and parcel), project power, equipment to be used and technical specifications, the annual production of the project were mentioned and information was given that the legislative obligations were met.

A total of 39 people attended the meeting, including 14 citizens, 3 mukhtars, and 22 municipality members, 14 of whom were women, 8 of whom were men.

Within the scope of the ESMP; the consultant company environmental expert conveyed the environmental and social risks of the sub-project from the content of the ESMP Report, the works planned to prevent the said risks, the effects of the geographical location of the region where the project will be located and the climate conditions on the project and the analyses made on possible natural disasters. In line with the information provided, the meeting was concluded with questions and answers and lasted approximately 1 hour.

a.2 Question and Answer Section

Question 1.	
Name / Occupation	Citizen
Will it have a negative impact on our health?	
Answer 1.	
Name / Occupation	(CA Engineering)
The types and amounts of pollution are different during the installation and construction phases. If we list the installation phase; Emissions from vehicles during the installation phase may create an additional burden on air quality, and dust emissions may occur during topsoil stripping and transportation of equipment to the site. The noise generated by the machines and equipment that will operate. In addition, solid waste and wastewater generation from the personnel working on the site is also an issue. Panels damaged during the installation phase may create pollution in the local area. The Municipality and the consultant company will take precautions for these risks mentioned. These may include; the use of vehicles that have been maintained to reduce emissions, conducting dust suppression activities for dust emissions, establishing a zero waste system specific to the sub-project, ensuring correct separation of waste and reintroducing the recyclable part to the economy, monitoring the necessary process for non-recyclable waste to ensure energy recovery if possible, and disposal if not possible, scheduling working hours for noise, and informing the nearest settlements. Apart from these, since the closest settlement to the sub-project site is approximately 3 km and the necessary precautions will be implemented, it is not expected that the people living in this settlement will be negatively affected. During the operation phase, wastewater and solid waste will be generated from the 2 personnel who will work. Solid waste will be collected regularly by Salihli Municipality, recyclable waste will be collected separately at the source and added to the circular economy, and wastewater will be collected in septic tanks and withdrawn regularly by the municipality. Considering both the distance of the settlement and the precautions to be taken, it is not expected to have a negative impact on human health..	

Question 2.	
Name / Occupation	Personel of Salihli Municipality
How will the facility to be established contribute to our district?	
Answer 2.	
Name / Occupation	Environmental Engineering (CA Engineering)
With the facility becoming operational, approximately 86.28% of Salihli Municipality's total electricity consumption will be met. Salihli Municipality will spend the budget it saves on electricity on the development of the district.	

Question 3.	
Name / Occupation	Citizen
Can solar power be installed in a rented house?	
Answer 3.	
Name / Occupation	Environmental Engineering (CA Engineering)

Yes, it can be established, but only if there is a lease agreement of at least two years and a consent letter is obtained from the landlord.

Question 3.	
Name / Occupation	Citizen
Will the facility generate electricity on non-sunny days?	
Answer 3.	
Name / Occupation	Environmental Engineering (CA Engineering)
It will continue to produce electricity, albeit at very low efficiency, on non-sunny days.	

a.3 Meeting Conclusion

The Public Consultation Meeting lasted approximately 1 hour, with the consultant company officials providing information about the project and Q&A. Information was provided on the environmental, social and economic dimensions of the Salihli Municipality SPP project, as well as the next stage of the project. The meeting was concluded after consultation with the participants' opinions and suggestions.

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a.4 Participant List

PAYDAŞ KATILIM TOPLANTISI TUTANAĞI

TOPLANTI KONUSU	SSP-II EF SALİHLİ Belediyesi (MANİSA) Güneş Enerji Santrali Projesi Paydaş Katılım Toplantısı
TOPLANTI YERİ /TARİH VE SAAT	SALİHLİ BELEDİYESİ MECLİS SALONU 29/11/2024 SAAT 14:00

KATILIMCILAR

NO	İsim Soyisim	Meslek	Yerleşim Yeri	Telefon	İmza
1		Çiftçi	Mersinli		
2		Çiftçi	Mersinli		
3		Memur	SALİHLİ		
4		Tekniker	SALİHLİ		
5		Mühendis	Salihli		
6		Tekniker	Salihli		
7		Mühendis	Salihli		
8		Memur	Salihli		
9		İşçi	Salihli		
10		Tekniker	Salihli		
11		Büro İşçisi	Yenipazar		
12		Sekreter	Salihli		
13		Memur	Salihli		
14		Memur	Salihli		
15		Memur	Salihli		
16		İşçi	Salihli		
17		İşçi	Salihli		
18		Büro işçi	Salihli		
19		Sekreter	Salihli		
20		Büro Personel	Salihli		
21		Büro işçi	Salihli		
22		Büro işçisi	Salihli		
23		Öğretmen	Salihli		
24		Mimar	Salihli		
25		İşçi	Salihli		
26		İşçi	Salihli		
27		İşçi	Mevlütlü		
28		Memur	SALİHLİ		
29		Memur	Salihli		
30		Avukat	Salihli		
31		[illegible]	[illegible]		
32		Zabıta	Salihli		
33		Harita Müh.	Salihli		
34		Mühendis	Salihli		
35		İşçi	Salihli		
36		Muhtar	Mersinli		
37		Muhtar	Mevlütlü		
38		İşçi	[illegible]		
39		Muhtar	Yeşilova		

Syf1-

ATTACHMENTS

b.1 Annex-1: Photo of the Public Consultation Meeting (29.11.2024)

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b.2 Annex-2: Local Newspaper Advertisement (Newspaper Announcement Date –Sektor Newspaper 15.11.2024)


GÜNDEM

SEKTÖR

Sarıgöl'e otogar, konut ve sulama göleti müjdesi

Manisa Büyükşehir Belediye Başkanı Mimar Ferdi Zeyrek, Sarıgöl ilçesinde mahalle muhtarlarıyla bir araya geldi. Konuşmasında Sarıgöl için müjdeler veren Başkan Zeyrek, "Sarıgöl'ün yeni konut alanı, ticaret merkezi, galericiler sitesi ve sulama göletine ihtiyacı var.

SALİHLİ BELEDİYESİ GÜNEŞ ENERJİ SANTRALİ PROJESİ HALKIN KATILIM TOPLANTISINA DAVET

Manisalılar Atatürk ve kent tarihini İlber Ortaylı'dan dinledi

b.3 National Newspaper Advertisement (Newspaper Advertisement Date - Bir Gün Newspaper - 19.11.2024)

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Utanmasalar çocuğu asacaklar!

Cumhurbaşkanı'na hakaret suçlamasıyla gözaltına alınan 16 yaşındaki liselinin davasına Cumhurbaşkanı Erdoğan müdahil oldu. Özel, "Çocuk cezalandırılsın" derken Cumhurbaşkanlığı koruması da tanık olarak dinlendi

27 avukattan Ahmet Türk'e destek dilekçesi

HER HAFTA İMZA ATTIRILDI

KORUMA DA DİNLENDİ

BİR KORUMA DAHA GELECEK

MİT Başkanı Kalın CHP'yi ziyaret edecek

Demirtaş sorumluluk almak istiyor

Hukuka aykırı davranmayın

ANMA

SÜLEYMAN GÖLLÜ

Aramızdan ayrılışının 3. yılında Gülen yüzünü ve DEVRİMCİ duruşunu, hiç unutmayacağız ABİ'm...

MEHMET GÖLLÜ

b.4 Annex-3: Announcement Published Salihli Municipality Website (19.11.2024)

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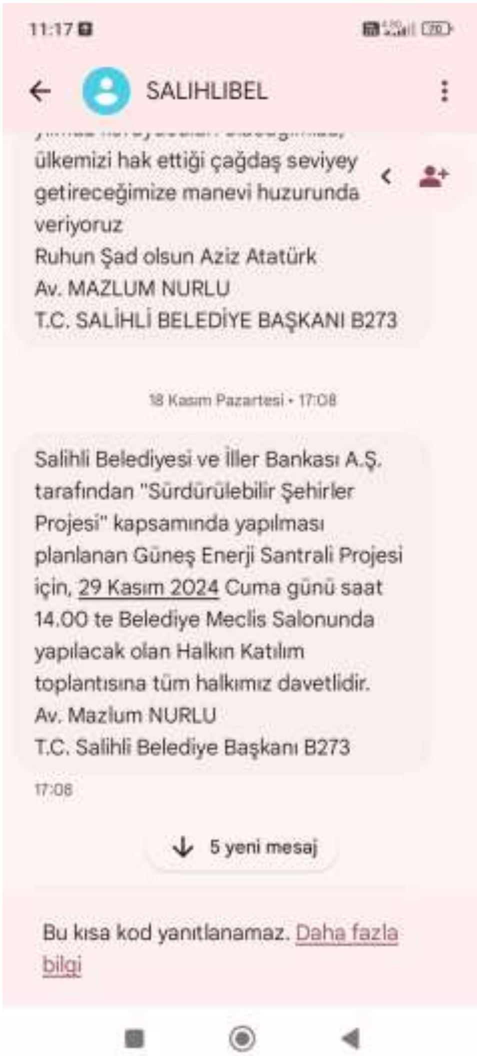
b.5 Invitation to the Public via Bulk SMS



b.6 Salihli Municipality Public Consultation Meeting Brochure

Salihli SPP Project ("Sub-project"), is one of the sub-projects under the Sustainable Cities Project- II Additional Financing (SCP-II-FE) to support sustainable development in cities in Türkiye. Specifically, the ESP-II EF aims to invest in sustainable urban development and develop project approaches related to the development of renewable energy sources, disaster and climate change mitigation and urban resilience to risk.

The sub-project, financed by the World Bank (WB), will be implemented by Salihli Municipality through İller Bankası A.Ş.

The sub-project aims to contribute to local development by providing clean energy to the water treatment plant in Salihli District by utilizing solar energy and meeting energy needs.

The Salihli SPP Project aimed to meet the electrical energy needs of the district and to reduce the consumption costs of the district by obtaining the energy used from renewable energy sources.

In this context, the sub-project will be built with a 30-year use period of the power plant to be established. The SPP project is expected to generate 4,500 kWe (5,158 kWp) of electricity. The project will be built on an area of approximately 33.057 m² on a lots 35 and 38 of block 185 in Mersinli Neighborhood of Salihli District of Manisa Province (See: Figure 1).

2

The expected results of the sub-project are as follows:

-The sub-project will provide access to clean, accessible and affordable water in Salihli district of İzmir by providing solar energy to the water treatment plant, which accounts for a large portion of the municipality's energy consumption.

-The sub-project will reduce the dependence on fossil fuels for energy and ensure the economic development of the district,

-The sub-project will contribute to Türkiye's efforts to comply with national and international quality standards in the renewable energy sector,

- By utilizing clean energy sources, a step will be taken in the fight against climate change and will contribute to the environmental and economic well-being of local communities.

Local people will be prioritized in the recruitment process of the sub-project.

The sub-project will be in line with national legislation as well as good international practices, including WB Safeguard Policies, guidelines, standards and best practice documents.

3

The sub-project will create job opportunities for local residents during the construction and operation phase. It is expected that the construction works of the SPP project will be completed in a fairly short period of time, road closures will be avoided as much as possible, and businesses around the project are not expected to close due to construction activities.

Figure 1: Salihli SPP Sub-project Area

An Environmental and Social Management Plan (ESMP) has been developed to manage the expected impacts.

The ESMP is prepared to monitor and assess potential environmental and social impacts and risks over the life of the sub-project and to propose mitigation measures for significant adverse environmental impacts.

4

Monitoring and audit activities to be implemented within the scope of the ESMP will also be defined. Within the scope of ESMP studies, impacts that may occur such as soil and air environments, noise, odor, water resources, wastes, traffic, ecosystem, existing natural disaster risks related to the area where the project will be established, reflection and glare effects that may be experienced due to SPP will be determined and relevant avoidance mitigation measures will be specified.

Monitoring requirements will also be defined and presented in the monitoring tables within the ESMP. Accordingly, during the construction phase of the sub-project, topsoil loss and compression, soil and water pollution due to leaching of pollutants and chemicals into the soil and groundwater, dust emissions, noise during construction of the sub-project and from temporary traffic load, waste generation and occupational health and safety, and during the operation phase, storage and use of chemicals, wastes, noise, reflection and glare impact of the power plant, livelihoods, grievances, community conflicts, stakeholder engagement, occupational health and safety and labor parameters will be monitored in accordance with the requirements set out in the ESMP.

The main institution responsible for the implementation of this Environmental and Social Management Plan (ESMP) is the Municipality of Salihli, which is also responsible for the construction and operation phases of the sub-project. In addition, various parties at different stages of the sub-project (Contractors, Consulting firm, Project Implementation Unit, ILBANK, etc.) They will take responsibility for various issues within the scope of ESMP. All the mentioned works will be coordinated by the Municipality of Salihli.

The sub-project documents will also be published on the website of Salihli Municipality and if requested, these documents will be shared by Salihli Municipality.

Sub-project documents will also be published on Salihli Municipality's website and will be shared by Salihli Municipality upon request.

Salihli Municipality has established a **Grievance Mechanism** to receive, resolve and follow up on the concerns and grievances of sub-project affected communities. All grievances will be effectively received, recorded and responded to within a predetermined timeline and according to their content. Salihli Municipality will be the responsible institution for the establishment and implementation of the Grievance Mechanism. In this context, the communication channels given below can also be used to share expectations, opinions, suggestions and grievances about the sub-project.

Public Engagement Meetings:

Salihli Municipality:

Telephone: 0236 713 26 40

E-mail: **info@salihli.bel.tr**

All internal and external stakeholders will also have the right to make use of other grievance redress mechanisms, such as the Presidential Communication Center (CIMER), which is accessible to all project stakeholders and is used nationwide, as an alternative and well-known channel to communicate project-related complaints and feedback directly to government authorities.

- **www.cimer.gov.tr**
- **Call Center :150**
- **Telephone Number: 0(312) 590 20 00**

SUSTAINABLE CITIES PROJECT-II

Salihli Municipality
Solar Power Plant Project

Public Engagement Meeting Brochure

29/11/2024
14:00
Salihli Municipality